

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Petition of PPL Electric Utilities Corporation :  
for Approval of Its Default Service Plan for : Docket No. P-2020-3019356  
the Period June 1, 2021 through May 31, :  
2025 :

**DIRECT TESTIMONY  
OF  
DAVID F. CIARLONE**

**ON BEHALF OF THE  
INDUSTRIAL ENERGY CONSUMERS OF PENNSYLVANIA**

**June 2020**

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Petition of PPL Electric Utilities Corporation :  
for Approval of Its Default Service Plan for : Docket No. P-2020-3019356  
the Period June 1, 2021 through May 31, :  
2025 :

**DIRECT TESTIMONY OF DAVID F CIARLONE**

1 **Q. Please state your name and business address.**

2 A. My name is David F. Ciarlone. My business address is 185 Springmeadow Drive,  
3 Pittsburgh, PA 15241.

4

5 **Q. By whom are you employed?**

6 A. I am the principal of DFC Energy Strategies, LLC.

7

8 **Q. What is your relationship with Arconic Mill Products ("Arconic" or "Arconic  
9 Corp.")?**

10 A. I serve as a consultant to Arconic, and my primary focus is on energy policy, legislative,  
11 and regulatory matters.

1

2 **Q. How long have you been employed by Arconic in this capacity?**

3 A. I have been consulting for Arconic on these matters for about a year. Prior to that, I was  
4 employed by Arconic Inc. (and Alcoa Inc.)<sup>1</sup> in a similar capacity as their Senior Manager,  
5 Energy and Carbon Strategy, from 2005 to 2019.

6

7 **Q. Please describe briefly your present responsibilities for Arconic.**

8 A. As an independent consultant retained by Arconic, I focus on strategies and projects involving  
9 energy policy, and legislative and regulatory matters that impact their operating costs,  
10 including matters that involve PPL Electric Utilities Corporation ("PPL" or "Company"). As  
11 an employee of Arconic, and prior to that as an employee of Alcoa, my duties included my  
12 present focus, as well as responsibilities for managing all of the Arconic's North American  
13 energy costs, including costs associated with the services that Arconic received from PPL.

14

15 **Q. On whose behalf are you testifying?**

16 A. I am testifying on behalf of Arconic and the Industrial Energy Consumers of Pennsylvania,<sup>2</sup>  
17 ("IECPA") of which Arconic's Lancaster Operations ("Arconic" or "Arconic Lancaster")  
18 is a member and a customer of PPL. IECPA is an association of energy-intensive, trade-

---

<sup>1</sup> Alcoa Inc. ("Alcoa") became Arconic Inc., spinning-off Alcoa Corp. in November 2016, and Arconic Inc. separated into Arconic Corp. and Howmet Aerospace Inc. in April 2020.

<sup>2</sup> For purposes of this case, I am aware that IECPA members taking service from PPL include Arconic and the following companies: Air Products and Chemicals, Inc.; ArcelorMittal USA LLC; Benton Foundry, Inc.; Carpenter Technology Corp.; Keystone Cement; Praxair, Inc.; and United States Gypsum Company.

1 exposed<sup>3</sup> industrial consumers of regulated utilities in Pennsylvania, including PPL.  
2 IECPA members on the PPL system collectively consume approximately 1.1 million MWh  
3 in electricity from PPL. Of this, Arconic Lancaster is alone responsible for approximately  
4 169 million kWh. IECPA previously submitted Reply Comments to the Pennsylvania  
5 Public Utility Commission ("PUC" or "Commission") in the Commission's recent  
6 investigation into default service and PJM Interconnection, LLC ("PJM") settlement  
7 reforms at Docket No. M-2019-3007101.

8  
9 **Q. Please describe your educational and employment background.**

10 A. I earned a Master of Science in Nuclear Engineering from The Pennsylvania State  
11 University and a Bachelor of Science in Mechanical Engineering from the University of  
12 Notre Dame. I have been producing, selling, buying and managing energy while working  
13 for a utility, an energy marketing company, consulting companies and large industrial  
14 customers for over 35 years.

15  
16 **Q. In what type of business is Arconic involved?**

17 A. Arconic Corp. is a company specializing in lightweight metals engineering and  
18 manufacturing. Arconic's products, are used worldwide in aerospace, automotive,  
19 commercial transportation, packaging, building and construction, oil and gas, defense,  
20 consumer electronics, and industrial applications.

---

<sup>3</sup> "Energy-intensive" means that because of the large amounts of energy consumed, small changes in energy rates translate into large changes in cost. "Trade-exposed" refers to the inability to pass cost increases on to customers without risking the loss of those customers to global competition.

1 **Q. Please provide a brief history of Arconic's facility in Lancaster, Pennsylvania.**

2 A. Arconic Lancaster's rolling mill opened as "Alumax Mill Products, Inc.," the name still  
3 listed by PPL, at 1480 Manheim Pike, Lancaster, Pennsylvania in 1968. Arconic employs  
4 approximately 150 people at Lancaster where they produce rolled aluminum sheet and  
5 operate a world-class research and development center dedicated to brazing sheet product  
6 innovations.

7  
8 **Q. Does Arconic consume significant amounts of electricity in its Lancaster operations?**

9 A. Yes. As noted above, Arconic's rolling mill at Lancaster is one of the largest electric loads  
10 on the PPL system and is routinely listed by PPL on their annual FERC Form 566 as one  
11 of their twenty largest purchasers.

12  
13 **Q. Are energy costs important to Arconic Lancaster Operations?**

14 A. Yes. Electricity costs are among the single highest components of production costs at  
15 Arconic Lancaster's facilities. As a trade-exposed business, Arconic's concern for energy  
16 costs reaches outward to its customers. Arconic relies on natural gas, electricity, fuel oil,  
17 and transport fuel to operate its facilities. Any change in the costs of these energy sources  
18 could also have a material impact on Arconic's profitability.

19  
20 **Q. Have you reviewed the Default Service Plan ("DSP") filed by PPL in this proceeding?**

21 A. I have reviewed summaries of the PPL's DSP proposal, as well as PPL's testimony  
22 addressing the calculation and allocation of PJM capacity and transmission costs, as  
23 discussed below.

1 **Q. Have you previously submitted testimony to the Commission?**

2 A. I submitted testimony on behalf of Alcoa and IECPA in the Commission's *En Banc* Hearing  
3 on "Trends in the Wholesale Electricity Markets" on November 6, 2008 (Docket No. M-  
4 2008-2066901), and again, on behalf of IECPA in the Commission's *En Banc*  
5 Hearing on "Alternative Rate Making Methodologies" on February 25, 2016  
6 (Docket No. M-2015-2518883).

7  
8 **Q. What is the purpose of your testimony?**

9 A. The purpose of my testimony is to provide the Commission with the perspective of a large  
10 industrial customer on the PPL system with respect to Company's calculation of network  
11 service peak load ("NSPL") contributions, which is a subject of this proceeding.

12  
13 Specifically, based on my practical experience with Arconic and PPL, as well as my general  
14 knowledge of the PJM system, I will address the fundamental concerns that I have with respect  
15 to PPL's allocation of transmission load responsibility to individual customers, which I believe  
16 does not reflect proper cost causation principles.

17  
18 **Q. What is your understanding of how PPL allocates and assigns capacity and transmission  
19 costs to customers?**

20 A. At pages 86 to 88 of his Direct Testimony, PPL witness James Rouland provides an  
21 explanation of the process employed by the Company for establishing each individual  
22 customer's Peak Load Contribution ("PLC") for the purpose of allocating capacity obligations.  
23 Essentially, PPL establishes each customer's capacity obligation based on data provided by

1 PJM for the customer's five highest capacity peaking hours during the summer period from  
2 June through September.<sup>4</sup> Using this 5 coincident peak ("5 CP") methodology, PPL then  
3 allocates costs to its various load serving entities ("LSEs") and also recovers those costs  
4 through the generation component of its Price to Compare ("PTC").<sup>5</sup>

5  
6 According to Mr. Rouland, PPL employs a similar approach for allocating transmission costs.  
7 In short, PPL creates network integrated transmission service ("NITS") tags for each customer  
8 that are based on the customer's actual energy usage during the five highest transmission  
9 peaking hours, applies loss and reconciliation factors, and then averages those results to create  
10 a single NSPL for each customer.<sup>6</sup> PPL then recovers those costs through the Transmission  
11 Service Charge component of the Company's PTC.<sup>7</sup> According to PPL, this is done in order  
12 to "obtain an accurate representation of each customer's use of the transmission system."<sup>8</sup>

13  
14 **Q. To your knowledge, how does this differ from how PJM assigns such obligations?**

15 A. As explained by Mr. Rouland, PJM charges LSEs in the PPL service territory for transmission  
16 costs through the Federal Energy Regulatory Commission ("FERC") approved formula  
17 transmission rate. Unlike PPL, however, PJM factors this obligation based on a single  
18 transmission coincident peak, or 1 CP, for the entire PPL system during the PPL zonal  
19 transmission peak period. And unlike PPL's capacity summer peaking period, the Company's

---

<sup>4</sup> PPL Statement No. 1, Direct Testimony of James M. Rouland, p. 87.

<sup>5</sup> *Id.* at 87-88.

<sup>6</sup> *Id.* at 89.

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

1 transmission peak period is "season-neutral," meaning that it can occur at any point in the  
2 year.

3  
4 **Q. Is this discrepancy problematic for customers?**

5 A. I believe it is. It is also problematic for the transmission system. By allocating transmission  
6 obligations to customers on a 5 CP basis, PPL's methodology deviates from PJM's 1 CP  
7 methodology. Therefore, PPL is allocating and collecting transmission costs from customers  
8 differently than how the customer is contributing to the transmission cost incurred by PPL  
9 from PJM. Because PJM plans and structures its transmission system to meet the single CP  
10 for each customer, and thus allocates costs to LSEs on this basis, PPL's methodology arguably  
11 violates the principal of cost of causation, which I understand from conferring with counsel is  
12 a principle that remains a "polestar" of ratemaking in Pennsylvania.<sup>9</sup> Indeed, based on my  
13 experience and understanding, cost causation is one of the most fundamental tests used to  
14 ensure that rates truly reflect the actual cost of service and are therefore just and reasonable.

15  
16 Furthermore, application of PPL's methodology for allocating transmission cost obligations  
17 in a manner that deviates from PJM's approach means that a customer that is accessing  
18 competitively priced power in the market must monitor five potential transmission peaks  
19 rather than monitoring just the single transmission peak that PJM identifies for each customer.

20 And because PPL's transmission peaks may occur at any time during the year, a customer

---

<sup>9</sup> See *Lloyd v. Pennsylvania Public Utility Comm'n*, 904 A.2d 1010, 1020 (Pa. Commw. 2006); see also JAMES H. CAWLEY AND NORMAN J. KENNARD, *PENNSYLVANIA PUBLIC UTILITY COMM'N, A GUIDE TO UTILITY RATEMAKING* 138-141 (2018 Ed.).



1 cannot rely on the five *capacity* peaks that PPL (and PJM, coincidentally) tracks for that  
2 customer in the summer months. In other words, though managing its operations in order to  
3 consume electricity as efficiently as possible and help lower peak demand, the customer is  
4 burdened by PPL's methodology, which requires an additional layer of unnecessary load  
5 management responsibility throughout the year.

6  
7 Finally, PPL's methodology for allocating transmission costs works against the objective of  
8 minimizing peak loads on the transmission system. To incentivize customers who are able to  
9 manage their peak demand and reduce the transmission costs incurred by PPL from PJM, the  
10 Company should use the same methodology as PJM.

11  
12 **Q. What is your recommendation for the Commission?**

13 A. As Arconic, IECPA, and other industrial consumers have advocated in the past, I recommend  
14 that the Commission require PPL to modify their calculation of NSPLs and the allocation of  
15 retail transmission costs to match PJM's methodology. Specifically, I recommend that PPL  
16 employ the same customer-specific single zonal CP (1 CP) that PJM assigns to LSEs for the  
17 purpose of calculating NSPLs and allocating transmission cost obligations. This would align  
18 retail cost allocation with wholesale cost allocation principles, send proper price signals, and  
19 make the retail system more efficient and reliable. And while I understand that the PUC does  
20 not mandate a uniform methodology for all Pennsylvania utilities in this regard, I also believe  
21 that this change would bring PPL's transmission allocation methodology in line with the  
22 general approach employed by other utilities in the Commonwealth. This is also important  
23 for large industrial and manufacturing customers like Arconic who compete with other

1 companies in the broader United States and global markets who have the advantage of retail  
2 energy cost allocation that aligns with wholesale allocation principles.

3

4 **Q. Does this complete your testimony?**

5 A. Yes.

6

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Petition of PPL Electric Utilities Corporation :  
for Approval of Its Default Service Plan for : Docket No. P-2020-3019356  
the Period June 1, 2021 through May 31, :  
2025 :

**VERIFICATION**

I, David F. Ciarlone, hereby state that the facts in my Direct Testimony, are true and correct to the best of my knowledge, information, and belief, and that I expect to be able to prove the same at any hearing held in this matter. I understand the statements herein are made subject to the penalties of 18 Pa. C.S. §4904 (relating to falsification to authorities).

Date: 6/25/2020

David F. Ciarlone

David F. Ciarlone  
DFC Energy Strategies LLC