

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Docket No. R-2024-3046523

Duquesne Light Company

DLC Statement No. 9

**DIRECT TESTIMONY OF
JOHN J. SPANOS**

Dated: March 20, 2024

Direct Testimony of John J. Spanos

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

2 A. John J. Spanos. My business address is 207 Senate Avenue, Camp Hill,
3 Pennsylvania.

4

5 **Q. With what firm are you associated?**

6 A. I am associated with the firm of Gannett Fleming Valuation and Rate
7 Consultants, LLC (Gannett Fleming).

8

9 **Q How long have you been associated with Gannett Fleming?**

10 A. I have been associated with the firm since June 1986.

11

12 **Q. What is your position in the firm?**

13 A. I am President.

14

15 **Q. What is your educational background?**

16 A. I have Bachelor of Science degrees in Industrial Management and Mathematics
17 from Carnegie Mellon University and a Master of Business Administration from
18 York College of Pennsylvania.

19

20 **Q. Are you a member of any professional societies?**

1 A. Yes. I am a member and past President of the Society of Depreciation
2 Professionals and a member of the American Gas Association/Edison Electric
3 Institute Industry Accounting Committee.

4

5 **Q. Have you taken the certification examination for depreciation**
6 **professionals?**

7 A. Yes, I passed the certification examination of the Society of Depreciation
8 Professionals in September 1997 and was recertified in August 2003, February
9 2008, January 2013, February 2018 and February 2023.

10

11 **Q. Will you outline your experience in the field of depreciation?**

12 A. I have over 37 years of depreciation experience which includes expert testimony
13 in more than 450 cases before approximately 46 regulatory commissions,
14 including the Pennsylvania Public Utility Commission. These cases have
15 included depreciation studies in the electric, gas, water, wastewater and pipeline
16 industries. In addition to cases where I have submitted testimony, I have
17 supervised over 800 other depreciation or valuation assignments. Please refer
18 to Appendix A for my qualifications statement, which includes further information
19 with respect to my work history, case experience, and leadership in the Society
20 of Depreciation Professionals.

21

22 **Q. What is the purpose of your testimony?**

23 A. My testimony is in support of the depreciation studies conducted under my
24 direction and supervision for the utility plant of Duquesne Light Company.

1

2 **Q. Have you prepared exhibits presenting the results of your studies?**

3 A. Yes. Exhibit JJS-1 presents the results of the depreciation study as of
4 December 31, 2023. Exhibit JJS-2 presents the results of the depreciation
5 study as of December 31, 2024. Exhibit JJS-3 presents the results of the
6 depreciation study as of December 31, 2025. In addition, I am responsible for
7 the responses to the following filing requirements pertaining to depreciation
8 under Section 53.53(a)(1) of the Commission's regulations: V-A-2, V-B-1, V-B-2,
9 V-C-1, V-D-1, V-D-2 and V-E-1 which present summaries of the study results as
10 of the historic test year end, December 31, 2023, future test year end,
11 December 31, 2024 and the fully projected future test year end, December 31,
12 2025.

13

14 **Q. Please describe Exhibits JJS 1, JJS-2 and JJS-3.**

15 A. Exhibit JJS-1, titled "2023 Depreciation Study - Calculated Annual Depreciation
16 Accruals Related to Electric Plant as of December 31, 2023," includes the
17 results of the depreciation study as related to the original cost as of December
18 31, 2023. The report also includes the detailed depreciation calculations.
19 Exhibit JJS-2, titled "2024 Depreciation Study - Calculated Annual Depreciation
20 Accruals Related to Electric Plant as of December 31, 2024," includes the
21 results of the depreciation study as related to the estimated original cost as of
22 December 31, 2024. The report also includes explanatory text, statistics related
23 to the estimation of service life, and the detailed depreciation calculations.

1 Exhibit JJS-3, titled “2025 Depreciation Study – Calculated Annual Depreciation
2 Accruals Related to Electric Plant as of December 31, 2025,” includes the
3 results of the depreciation study as related to the estimated original cost as of
4 December 31, 2025.

5
6 **Q. What was the purpose of your depreciation study?**

7 A. The purpose of the depreciation studies were to estimate the annual
8 depreciation accruals related to utility plant in service for ratemaking purposes
9 and, using Commission-approved procedures, to estimate the Company’s book
10 reserve as of December 31, 2023, December 31, 2024 and December 31, 2025.

11
12 **Q. Is the Company's claim for annual depreciation in the current proceeding
13 based on the same methods of depreciation as were used in its most
14 recent electric base rate proceeding in Docket No. 2021-3024750.**

15 A. Yes, it is. For most plant accounts, the current claim for annual depreciation is
16 based on the straight line, remaining life method of depreciation. For Accounts
17 391, 393, 394, 395, 397 and 398, the claim is based on the straight line,
18 remaining life method of amortization. The annual amortization is based on
19 amortization accounting which distributes the unrecovered cost of fixed capital
20 assets over the remaining amortization period selected for each account.

21
22 **Q. What group procedure is being used in this proceeding for depreciable
23 accounts?**

1 A. All depreciable accounts utilize the methods and procedures based on the
2 straight line remaining life method, using remaining lives consistent with the
3 average service life procedure for plant installed prior to 1983 and remaining
4 lives consistent with the equal life group procedure for plant installed in 1983
5 and in later years.

6

7 **Q. Please describe briefly the straight line remaining life method of**
8 **depreciation that you used for depreciable property.**

9 A. The straight line remaining life method of depreciation allocates the original cost
10 less accumulated depreciation in equal amounts to each year of remaining
11 service life.

12

13 **Q. Please describe briefly the average service life procedure that you used in**
14 **conjunction with the straight line remaining life method for plant installed**
15 **prior to 1983.**

16 A. In the average service life procedure, the remaining life annual accrual for each
17 vintage is determined by dividing future book accruals (original cost less book
18 reserve) by the average remaining life of the vintage. Their average remaining
19 life is a directly weighted average derived from the estimated survivor curve.

20

21 **Q. Please describe briefly the equal life group procedure that you used in**
22 **conjunction with the straight line remaining life method for plant installed**
23 **in 1983 and in later years.**

1 A. In the equal life group procedure, the remaining life annual accrual for each
2 vintage is determined by dividing future book accruals (original cost less book
3 reserve) by the composite remaining life for the surviving original cost of that
4 vintage. The composite remaining life for the vintage is derived by weighting the
5 individual equal life group remaining lives.

6 In the equal life group procedure, the property group is subdivided
7 according to service life. That is, each equal life group includes that portion of
8 the property which experiences the life of that specific group. The relative size
9 of each equal life group is determined from the property's life dispersion curve.

10

11 **Q. Is the Company's claim for accrued depreciation in the current proceeding**
12 **made on the same basis as has been used in its most recent electric base**
13 **rate proceeding in Docket No. R-2021-3024750?**

14 A. Yes. The current claim for accrued depreciation is the book reserve brought
15 forward from the book reserve utilized by the company in its last base rate
16 proceeding and for the prior rate cases.

17

18 **Q. How was the book reserve used in the calculation of annual depreciation?**

19 A. The book reserve by account was allocated to vintages to determine original
20 cost less accrued depreciation by vintage. The total annual accrual is the sum
21 of the results of dividing the original costs less accrued depreciation by the
22 vintage composite remaining lives.

23

1 **Q. How was the book reserve as of December 31, 2024 estimated?**

2 A. The book reserve as of December 31, 2024, by account, was projected by
3 adding estimated accruals, salvage and the amortization of net salvage, and
4 subtracting estimated retirements and cost of removal from the book reserve as
5 of December 31, 2024. Annual accruals were estimated using the annual
6 accrual rates calculated as of December 31, 2024. For most accounts, salvage
7 and cost of removal were estimated by (1) expressing actual salvage and cost
8 of removal as a percent of retirements by account, for the most recent five-year
9 period, and (2) applying those percents to the projected retirements by account.
10 For the purpose of calculating the annual accruals, the projected book reserve
11 by account was allocated to vintages based on calculated accrued depreciation
12 as of December 31, 2024.

13
14 **Q. Has a service life study of the Company's electric utility property been
15 performed for this filing?**

16 A. No, but the Company's most recent service life study was performed using data
17 through 2019 because this Commission's regulations only require service life
18 studies to be prepared every 5 years. That 2019 service life study is the basis
19 for the service lives I used to calculate annual accruals.

20
21 **Q. Briefly outline the procedure used in performing the service life study.**

22 A. The service life study consisted of assembling and compiling historical data from
23 the records related to the electric utility plant of the Company; statistically

1 analyzing such data to obtain historical trends of survivor characteristics;
2 obtaining supplementary information from management and operating
3 personnel concerning Company practices and plans as they relate to plant
4 operations; and interpreting the above data to form judgments of service life
5 characteristics.

6 Iowa type survivor curves were used to describe the estimated survivor
7 characteristics of the mass property groups. Individual service lives were used
8 for major individual units of plant, such as large service centers, substation
9 structures, and office buildings within Accounts 352, 361 and 390.1. The life
10 span concept was recognized by coordinating the lives of associated plant
11 installed in subsequent years with the probable retirement date defined by the
12 life estimated for the major unit.

13
14 **Q. What statistical data were employed in the historical analyses performed**
15 **for the purpose of estimating service life characteristics?**

16 A. The data consisted of the entries made to record retirements and other
17 transactions related to the electric plant through 2019. These entries were
18 classified by depreciable group, type of transaction, the year in which the
19 transaction took place, and the year in which the plant was installed. Types of
20 transactions included in the data were plant additions, retirements, transfers,
21 and balances. In the presentation of service life statistics, only the significant
22 exposure points that were utilized in determining survivor curves were plotted.
23 This process is utilized to show my judgment in service life determinations.

1

2 **Q. What was the source of these data?**

3 A. They were assembled from Company records related to its utility plant in
4 service.

5

6 **Q. Were the methods used in the service life study the same as those used in
7 other depreciation studies for electric utility plant presented before this
8 Commission?**

9 A. Yes. The methods are the same ones that have been presented previously for
10 Duquesne Light Company and for other electric companies before the
11 Pennsylvania Public Utility Commission and that have been accepted by the
12 Commission in its past orders concerning electric utilities.

13

14 **Q. What approach did you use to estimate the lives of significant structures
15 such as substation buildings, office buildings and service centers?**

16 A. I used the life span technique to estimate the lives of significant structures. In
17 this technique, the survivor characteristics of the structures are described by the
18 use of interim survivor curves and estimated probable retirement dates. The
19 interim survivor curve describes the rate of retirement related to the replacement
20 of elements of the structure such as plumbing, heating, doors, windows, roofs,
21 etc. that occur during the life of the facility. The probable retirement date
22 provides the rate of final retirement for each year of installation for the structure
23 by truncating the interim survivor curve for each installation year at its attained

1 age at the date of probable retirement. The use of interim survivor curves
2 truncated at the date of probable retirement provides a consistent method for
3 estimating the lives of the several years of installation inasmuch as concurrent
4 retirement of all years of installation will occur when the structure is retired.

5
6 **Q. Has your firm used this approach in other proceedings before this**
7 **Commission?**

8 A. Yes, we have used the life span technique on many occasions before the
9 Pennsylvania Public Utility Commission.

10
11 **Q. What are the bases for the probable retirement years that you have**
12 **estimated for each structure?**

13 A. The bases for the estimates of probable retirement years are life spans for each
14 structure that are based on judgment and incorporate consideration of the age,
15 use, size, nature of construction, management outlook and typical life spans
16 experienced and used by other electric utilities for similar structures. Most of
17 the life spans result in probable retirement years that are many years in the
18 future. As a result, the retirement of these structures is not yet subject to specific
19 management plans. Such plans would be premature. At the appropriate time,
20 analysis of the economics of rehabilitation and continued use or retirement of
21 the structure will be performed and the results incorporated in the estimation of
22 the structure's life span.

1 **Q. Are the factors considered in your estimates of service life presented in**
2 **Exhibit JJS-2?**

3 A. Yes. A discussion of the factors considered in the estimation of service lives is
4 presented by account on pages III-4 through III-7 of Exhibit JJS-2.

5
6 **Q. Please outline the contents of Exhibit JJS-2.**

7 A. Exhibit JJS-2 is presented in seven parts. Part I, Introduction, sets forth the
8 scope and basis of the study. Part II, Estimation of Survivor Curves, includes a
9 description of the Iowa Curves and the formulation of the retirement rate
10 method. Part III, Service Life Considerations, and Part IV, Calculation of Annual
11 and Accrued Depreciation, include a description of the judgment utilized for life
12 parameters and the explanation of depreciation procedures.

13 Part V, Results of Study, presents a description of the results and
14 summaries of the depreciation calculations. Part VI, Service Life Statistics,
15 presents the graphs and tables which relate to the service life study. Part VII,
16 Detailed Depreciation Calculations, sets forth the detailed depreciation
17 calculations by account.

18 Table 1, pages V-4 and V-5, presents the estimated survivor curve, the
19 original cost as of December 31, 2024, and the book reserve and calculated
20 annual depreciation for each account or subaccount of Electric Plant. Table 2,
21 page V-6, presents the bringforward to December 31, 2024, of the book
22 depreciation reserve as of December 31, 2023. Table 3 on page V-7 sets forth
23 the calculation of the annual accruals used in the bringforward. Table 4, page

1 V-8, presents the experienced and estimated net salvage by function during the
2 five-year period, 2020 through 2024.

3 The section beginning on page VI-1 presents the results of the
4 retirement rate analyses prepared as the historical bases for the service life
5 estimates. The section beginning on page VII-2 presents the depreciation
6 calculations related to original cost. The tabulations on pages VII-7 through VII-
7 95 present the calculation of annual depreciation by vintage by account for each
8 depreciable group of utility plant.

9
10 **Q. Please outline the contents of Exhibit JJS-3.**

11 A. Exhibit JJS-3 includes a description of the results, summaries of the
12 depreciation calculations, and the detailed depreciation calculations as of
13 December 31, 2025. The descriptions and explanations presented in Exhibit
14 JJS-2 are also applicable to the depreciation calculations presented in Exhibit
15 JJS-3. The graphs and tables related to service life presented in Exhibit JJS-2
16 also support the service life estimates used in Exhibit JJS-3 inasmuch as the
17 estimates are the same for both test years. The summary tables and detailed
18 depreciation calculations as of December 31, 2025, are organized and
19 presented in the same manner as those as of December 31, 2024.

20
21 **Q. Please outline the contents of Exhibit JJS-1.**

22 A. Exhibit JJS-1 includes a description of the results, summaries of the
23 depreciation calculations, and the detailed depreciation calculations as of

1 December 31, 2023. The descriptions and explanations presented in Exhibit
2 JJS-2 are also applicable to the depreciation calculations presented in Exhibit
3 JJS-1. The graphs and tables related to service life presented in Exhibit JJS-2
4 also support the service life estimates used in Exhibit JJS-1, inasmuch as the
5 estimates are the same for both test years. The summary tables and detailed
6 depreciation calculations as of December 31, 2023, are organized and
7 presented in the same manner as those as of December 31, 2024.

8
9 **Q. Please use an example to illustrate the manner in which the study is**
10 **presented in Exhibit JJS-2.**

11 A. I will use Account 365.01, Overhead Conductors and Devices, as my example;
12 inasmuch as it is one of the larger depreciable groups and represents 14
13 percent of the original cost of depreciable utility plant as of December 31, 2024.

14 The retirement rate method was used to analyze the survivor
15 characteristics of this group. The life table for the 1964-2019 experience band
16 is presented on pages VI-73 through VI-78 of Exhibit JJS-2. The life table, or
17 original survivor curve, is plotted along with the estimated smooth survivor
18 curve, the 50-R0.5, on page VI-72.

19 The calculation as of December 31, 2024, is presented on pages VII-49
20 through VII-51 of Exhibit JJS-2 and is based in part on the bringforward of the
21 book reserve. The tabulation in Exhibit JJS-2 sets forth the installation year, the
22 original cost, calculated accrued depreciation, allocated book reserve, future

1 accruals, remaining life and annual accrual. The totals are brought forward to
2 the table on page V-4 in Exhibit JJS-2.

3
4 **Q. Do you believe Exhibit JJS-2 reflects the appropriate survivor curves for**
5 **Duquesne Light Company to be adopted in this proceeding?**

6 A. Yes, I do. The methods and procedures utilized in the development of survivor
7 curves are consistent with past practices for Duquesne Light Company and
8 Pennsylvania ratemaking regulations. The service life study was completed as
9 of December 31, 2019.

10
11 **Q. Do you believe that the annual depreciation rates and the related**
12 **depreciation expense claims should be adopted in this proceeding?**

13 A. Yes, I do. The depreciation rates and expense claims are based on appropriate
14 survivor curves and the depreciation procedures are the same as those
15 approved in past filings before this Commission.

16
17 **Q. In what manner is net salvage incorporated in the depreciation**
18 **calculations?**

19 A. As stated on page I-4 of Exhibit JJS-2, no adjustment for net salvage was made
20 to the calculated annual depreciation amounts. The total calculated annual
21 depreciation set forth on page I-4 of Exhibit JJS-1, page V-5 of Exhibit JJS-2
22 and on page I-4 of Exhibit JJS-3 should include an addition for the amortization
23 of negative net salvage in accordance with the practice of this Commission.

1 The amortization is based on experience during the period 2019 through 2023
2 for the calculation as of December 31, 2023, and on experience during the
3 period 2020 through December 31, 2023, plus estimates for the twelve months
4 of 2024 for the calculation as of December 31, 2024.

5 The amortization for the December 31, 2025 calculation is based on
6 experience during the period 2021 through December 31, 2023, plus estimates
7 for the period January 2024 through December 2025. The amounts of the five-
8 year amortizations are calculated in Table 2 on page I-5 of Exhibit JJS-1, in
9 Table 4 on page V-8 of Exhibit JJS-2 and in Table 4 on page I-7 of Exhibit JJS-
10 3.

11
12 **Q. Does this complete your testimony at this time?**

13 **A.** Yes, it does.