

**BEFORE THE  
PUBLIC UTILITIES COMMISSION OF OHIO  
  
THE DAYTON POWER AND LIGHT COMPANY  
  
CASE NO. 20-0680-EL-UNC**

**DIRECT TESTIMONY OF  
R. JEFFREY MALINAK**

- ☐ **MANAGEMENT POLICIES, PRACTICES, AND ORGANIZATION**
- ☐ **OPERATING INCOME**
- ☐ **RATE BASE**
- ☐ **ALLOCATIONS**
- ☐ **RATE OF RETURN**
- ☐ **RATES AND TARIFFS**
- ☒ **OTHER**

**PUBLIC VERSION**

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1        **I.     INTRODUCTION**

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

3        A.     My name is R. Jeffrey Malinak. I am currently a Managing Principal in the Washington,  
4               D.C. office of Analysis Group, Inc., an international economic and financial consulting  
5               services firm. My business address is 800 17th Street NW, Washington, DC 20006.

6        **Q.     What is your educational and work background?**

7        A.     I have over 25 years of experience in the field of economic and financial consulting, in  
8               which I have provided microeconomic, finance, and accounting consulting advice and  
9               other services to attorneys and companies in both litigation and non-litigation settings. My  
10              main areas of expertise are financial economics and valuation of corporations and other  
11              assets. I spent approximately seven years of my career at Putnam, Hayes & Bartlett, Inc.  
12              (PHB), an economic and financial consulting firm with large consulting practices in the  
13              energy industry and other regulated industries. While at PHB, approximately half of my  
14              time was spent on litigation matters and regulatory proceedings, including rate cases, in  
15              the electric utility and energy sectors. My work on these matters included revenue  
16              requirements modeling; analysis of the economics of coal mining and transportation;  
17              analysis of the operations and economics of nuclear, coal, wood scrap, and natural gas  
18              power plants; forecasting of load and related generation capacity requirements; assessment  
19              of the cost of capital for generation and for transmission and distribution (both electric and  
20              natural gas); calculation of the cost of compliance with environmental regulations;  
21              modeling and forecasting of emission allowance prices; and other topics. Since joining

1 Analysis Group in the mid-1990s, I have continued to work on projects in the energy and  
2 environmental economics areas, including regulatory matters.

3 I hold a Master's in Business Administration in Finance and Accounting from the  
4 University of Texas at Austin and a B.A. in Social Sciences from Stanford University. My  
5 resume, which is included as Appendix A, provides more details on my background and  
6 prior experience.

7 **Q. Have you previously testified before the Public Utilities Commission of Ohio?**

8 A. Yes, I testified on behalf of The Dayton Power & Light Company ("DP&L") in Public  
9 Utility Commission of Ohio ("PUCO") Case Nos. 12-426-EL-SSO, et al.; 16-0395-EL-  
10 SSO, et al; and 19-0162-EL-RDR. That testimony addressed (among other things) an  
11 examination of the Significantly Excess Earnings Test ("SEET") as well as whether  
12 Electric Security Plans ("ESP") proposed by DP&L were more favorable in the aggregate  
13 than the expected result under a hypothetical Market Rate Offer ("MRO"). That testimony  
14 also included an analysis of the financial condition and integrity of DP&L and its  
15 immediate parent DPL Inc. ("DPL," together with DP&L, the "Company") under various  
16 financial assumptions.

17 **Q. What is the scope of your testimony in this proceeding?**

18 A. I investigate two primary questions in this testimony. First, I evaluate whether DP&L's  
19 currently operative ESP ("ESP I") is "more favorable in the aggregate as compared to the  
20 expected results that would otherwise apply" under a hypothetical MRO that DP&L could  
21 seek in the alternative.<sup>1</sup> I compare ESP I to a hypothetical MRO using the more favorable

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<sup>1</sup> R.C. 4928.143(C)(1).

1 in the aggregate test (“MFA Test”). In connection with the MFA Test, I also evaluate the  
2 reasonableness of the Financial Integrity Charge (“FIC”) that would be available to DP&L  
3 under an MRO. Second, I examine whether DP&L would pass the forward-looking SEET  
4 under ESP I.<sup>2</sup>

5 **Q. Do you support any additional analysis?**

6 A. Yes. In order to provide a basis for my SEET analysis, as well as a robust view of DP&L’s  
7 financial situation under various scenarios, I also provide the results of my financial model  
8 projections for DP&L and DPL, including their financial condition and integrity, under  
9 four scenarios: a hypothetical MRO without an FIC, a hypothetical MRO with an FIC,  
10 ESP I with the RSC, and a hypothetical ESP I without an RSC.

11 **Q. What is the time period covered by your analysis in this proceeding?**

12 A. My testimony analyzes and discusses projected financial results for DP&L and DPL for  
13 the period from 2020 through 2023, at which point I understand that DP&L’s ESP I would  
14 be subject to the next forward-looking SEET and MFA Test review by the PUCO. The  
15 basis for my analysis is a set of financial projections sponsored by DP&L Witness  
16 Garavaglia.<sup>3</sup>

17 **Q. Please describe the model that you use to make your financial projections for each**  
18 **scenario.**

19 A. I use an integrated financial model that includes all relevant inflows and outflows,  
20 including tax effects, similar in many ways to a revenue requirements model. The various

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<sup>2</sup> R.C. 4928.143(E).

<sup>3</sup> Direct Testimony of Garavaglia Direct Testimony, Public Utilities Commission of Ohio Case Nos. 20-0680-EL-UNC, April 1, 2020 (“Garavaglia Testimony”), at 26-30. As described below, I have performed certain tests of these projections and found them to be reasonable.

1 parts of the model are interdependent such that a change in one variable affects other  
2 variables. For example, if the inflows under ESP I, including the RSC or any external  
3 capital infusions, were reduced or eliminated, it would reduce DP&L's ability to pay its  
4 debt service or invest sufficiently in its system for its customers. Conversely, if the amounts  
5 of such inflows were to increase, DP&L's ability to make capital expenditures and debt  
6 service payments would improve.

7 **Q. Have you conducted any analysis of the relationship between a Transmission and**  
8 **Distribution ("T&D") utility's financial condition and integrity and its ability to**  
9 **provide reliable service?**

10 A. Yes, as described below, my analysis of data for DP&L and other utilities in this country  
11 reveals two key points. First, T&D utilities who are in better financial condition and have  
12 higher integrity (as measured by credit ratings) tend to make larger capital investments.  
13 Second, T&D utilities who make larger capital investments tend to have better reliability  
14 scores. There is thus a direct relationship between a T&D utility's financial condition and  
15 integrity and its ability to provide reliable service to its customers. The Commission should  
16 consider this relationship when evaluating DP&L's ESP I and a hypothetical MRO.

17 To examine the relationship between capital expenditures and reliable service, I completed  
18 a regression analysis that considered a significant reduction to DP&L's projected capital  
19 spending and the effect on the resulting reliability metrics.<sup>4</sup> My regression results indicate  
20 that a reduction in the expected capital expenditures likely would lead to a deterioration in

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<sup>4</sup> The original version of this analysis was prepared for and presented at the Rutgers University CRRRI (Center for Research in Regulated Industries) Western Energy Conference in Monterey, California in June 2019.

1 reliability. A technical appendix is attached to the end of my testimony that provides a  
2 more detailed discussion of the analysis.

3 **Q. Please summarize the results of your capital expenditure analysis as it relates to**  
4 **DP&L.**

5 A. My analysis shows that, relative to its peers, DP&L historically has significantly  
6 underinvested in its grid, likely due in part to a relatively poorer financial condition.  
7 Furthermore, DP&L is the only utility in Ohio that has not yet begun to invest in the  
8 modernization of its grid. While DP&L's historical underinvestment has not resulted in  
9 below average reliability scores for DP&L to date, my analysis of capital expenditures by  
10 T&D utilities suggests that this situation is not likely to be sustainable without continued  
11 increases in DP&L's base T&D capital expenditures. Indeed, in recent years DP&L's  
12 reliability scores have been worsening.

13 **Q. Do the financial projections provided to you by DP&L address this problem?**

14 A. Yes. DP&L's financial projections include a higher level of base T&D capital expenditures  
15 than DP&L's historical average. This increase, which will begin to bring DP&L's  
16 cumulative capex more in line with its peers, will benefit customers in two important ways.  
17 First, it will protect against any potential decline in the safety and reliability of DP&L's  
18 service due to DP&L's historical relative underinvestment. Second, it will help to bring  
19 DP&L's general service quality more in line with industry norms. However, DP&L will  
20 not be able to fund these needed capital expenditures or invest in grid modernization, at  
21 reasonable rates, without sufficient financial resources. My financial analysis, described  
22 below, addresses these issues in the context of my SEET assessment of ESP I and my MFA  
23 comparison between ESP I and a hypothetical MRO.

1 **Q. What are the key features of the hypothetical MROs that you analyze?**

2 A. I evaluate three hypothetical MRO scenarios that differ only in the amount of the assumed  
3 FIC and external borrowing amounts. The primary features of these scenarios include the  
4 following:

- 5 • a four-year term (2020 through 2023);
- 6 • bypassable FIC charges of zero, [REDACTED] million annually (as described  
7 in more detail in Section IV.C.);
- 8 • continuation of the recovery of the net costs of its investment in the Ohio Valley  
9 Electric Cooperative (“OVEC”) as authorized by HB6;
- 10 • continuation of the Storm Rider authorized under ESP I;
- 11 • elimination of the Infrastructure Investment Rider (“IIR”) such that DP&L would  
12 lose the ability to recover in near real time any of the investment that it makes under  
13 the IIR;
- 14 • recovery of generation environmental expenses, which total [REDACTED];
- 15 • a plan by AES to infuse \$150 million in equity into DP&L in the first half of 2020;  
16 and
- 17 • additional borrowing of [REDACTED] to assist in funding infrastructure investment  
18 in the [REDACTED] FIC scenarios only.

19 I refer to these scenarios as the “MRO without an FIC,” “MRO with [REDACTED] FIC”  
20 and “MRO with [REDACTED] FIC.”



**Q. Please summarize the results of your financial projections under a hypothetical MRO without an FIC.**

A. DP&L would face severe and imminent financial distress under an MRO with no FIC, and AES's planned \$150 million equity investment likely would be uneconomic. Even assuming that AES would still make this investment, DP&L would not have the financial resources necessary to make the projected capital and Operations and Maintenance ("O&M") expenditures necessary to provide safe and reliable service, without substantially overdrawing its revolver (by [REDACTED] in 2023) or otherwise increasing its debt load. This increase in leverage would further deepen its financial distress. The problems would continue in the following years, as operating cash flow would remain well below projected capital expenditure needs. Furthermore, I project that DP&L would be downgraded to below investment grade, resulting in a significant increase to its debt cost of capital.

DPL would face even greater financial distress than DP&L. It would violate both of its debt covenants in each of the four years. DPL would need to overdraw the revolver beginning in 2021, reaching an excess balance of [REDACTED] by December 2023. There would be great uncertainty surrounding DPL's options under this scenario, as well as DPL's credit ratings. I project that DPL would face a certain downgrade and a significant increase in its probability of default. Under these circumstances, the utility would face a financial emergency that would make it difficult or impossible to conduct normal operations, thereby jeopardizing its ability to provide safe and reliable service, much less invest in grid modernization.

1   **Q.    Please summarize the results of your financial projections under a hypothetical MRO**  
2       **with an FIC ranging from [REDACTED].**

3   **A.    In contrast to the dire financial situation that DP&L and DPL would be in under a**  
4       **hypothetical MRO without an FIC, my projections under these scenarios show that both**  
5       **entities would have sufficient funds to make DP&L's projected capital expenditures and**  
6       **have relatively limited or no issues in meeting their debt obligations. Aside from one**  
7       **temporary breach for DPL in 2021 under the [REDACTED] FIC scenario, both entities would**  
8       **satisfy their debt covenants. DP&L's projected credit rating would increase one notch to**  
9       **Baa1 under the [REDACTED] FIC scenario, while DPL's credit rating would be maintained**  
10      **at Ba1. Under the [REDACTED] FIC scenario, DP&L's projected credit rating would remain**  
11      **at Baa1. However, it would remain on the cusp of an A3 rating, which would be more**  
12      **consistent with the median rating of a group of its peers.**

13       In sum, under a hypothetical MRO with a \$150 million equity infusion by AES and an FIC  
14       ranging from [REDACTED], I project that DP&L will be able to make its planned  
15       capital expenditures while improving its financial footing going forward. This result, in  
16       turn, would help to ensure the provision of safe and reliable service for DP&L's customers  
17       and enhance DP&L's ability to invest in grid modernization, while providing a margin of  
18       safety from a financial point of view and customer benefits in the form of a lower cost of  
19       debt capital.

1 **Q. What are the key elements of DP&L’s ESP I?**

2 A. I analyze DP&L’s ESP I, which is similar to a hypothetical MRO, with the following major  
3 differences:<sup>5</sup>

- 4 • no FIC;
- 5 • inclusion of a non-bypassable RSC ranging from \$76 million in 2020 to \$80 million  
6 in 2023, with an average annual value of approximately \$79 million (evaluated in  
7 Section IV.D.);
- 8 • inclusion of the IIR; and
- 9 • a plan by AES to invest \$300 million in equity in DP&L (half in mid-2020 and half  
10 in mid-2021).

11 I refer to this scenario either as “ESP I” or “ESP I with RSC.”

12 **Q. Why does AES plan to invest more equity under ESP I than under a hypothetical**  
13 **MRO?**

14 A. I understand that AES is willing to make a second \$150 million equity investment in DP&L  
15 in mid-2021 under ESP I because it would be able to earn a near real-time recovery on  
16 smart grid investments through the IIR. This type of recovery is not available under a  
17 hypothetical MRO.

18 **Q. Please summarize the results of your financial projections under ESP I with RSC.**

19 A. As in the MRO scenarios with an FIC ranging from [REDACTED], my projections  
20 under ESP I with an RSC show DP&L and DPL would have sufficient funds to make

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<sup>5</sup> DPL Inc. and DP&L Form 10-K for the fiscal year ending December 31, 2019 (“2019 10-K”), at 65, and discussions with DP&L personnel.

DP&L's projected capital and O&M expenditures and generally meet their debt service obligations going forward.<sup>6</sup> This result is made possible in significant part by AES's planned \$300 million equity infusion which, along with the issuance of new debt, would help to make up for the shortfall between DP&L's annual operating cash flow under this scenario [REDACTED] and DP&L's projected average annual capital expenditures of [REDACTED]

[REDACTED]. However, [REDACTED].

Meanwhile, its cash flow/debt ratio would fall below [REDACTED], [REDACTED]

[REDACTED] I understand from Witness Garavaglia that [REDACTED]

[REDACTED], likely due in part to AES's planned equity

infusion. Due in significant part to this infusion, I project that DP&L would [REDACTED]

[REDACTED]. However, that rating still

would be below the rating level targeted by peer companies. DPL would maintain its

existing (non-investment grade) rating.

As discussed in the testimony of Witness Garavaglia, DP&L would be in a manageable

financial situation under ESP I with RSC, but would be in a somewhat fragile state in which

it could be challenged to respond adequately to unexpected shocks, such as from the Covid-

19 health and economic crisis, or a severe storm such as last year's tornados.

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<sup>6</sup> Under all three of these scenarios, DP&L would have sufficient financial resources to make the capital and O&M expenditures necessary to provide safe and reliable service to its customers, as well as to eventually invest in grid modernization. These resources come from the same sources under each scenario, including operating cash flow and external capital, just in differing amounts. For example, while the RSC under ESP I is lower than the range of FICs under the hypothetical MRO, the equity infusion under ESP I is \$150 million greater than under the MRO. The net effect is that I project that DP&L would have sufficient resources under both ESP I and a hypothetical MRO with FIC to make the necessary expenditures for DP&L to provide safe and reliable service, as well as to have an opportunity to provide enhanced quality through grid modernization, all at reasonable rates, and for DP&L and DPL to maintain a sound financial footing over the longer run.

**Q. What would be the net effect on DP&L's ability to make its capital expenditures and on DP&L's customers based on your projections under ESP I?**

A. As described above, my projections under ESP I with RSC show that DP&L would be able to make its projected capital expenditures while maintaining a stable financial footing going forward, despite having certain operating metrics that are [REDACTED] [REDACTED].<sup>7</sup> This result is made possible by AES's planned equity infusion and the existence of the IIR. Thus, under ESP I, DP&L should be able to make the needed investments in its grid to ensure the provision of safe and reliable service for its customers, as well as invest in grid modernization, both of which can be expected to provide significant customer benefits.<sup>8</sup>

**Q. Please describe what would happen to DP&L's projected financial results under a hypothetical ESP I without the RSC.**

A. DP&L and DPL would be in perilous position without the RSC. Under that scenario, DP&L would lose not only the \$314 million of revenue from the RSC, but also would not receive at least \$150 million of equity from AES. Given its financial condition in this case, it would not be able to raise the [REDACTED]. DP&L and DPL would both overdraw their revolvers and DPL would be in significant violation of its debt covenants. Meanwhile, both entities would struggle to refinance the combined \$520 million in debt that matures in 2020 and 2021. Not surprisingly, the initial infusion of \$150 million in

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<sup>7</sup> [REDACTED]

1 equity in June 2020 likely would not make economic sense, and DP&L's ability to make  
2 the capital and other expenditures necessary to provide safe and reliable service to its  
3 customers would be jeopardized, as would its ability to close the investment gap with its  
4 peers or invest in grid modernization.

## 5 **II. SUMMARY OF MAIN CONCLUSIONS**

6 **Q. Please summarize the main conclusions that you have reached regarding the**  
7 **Aggregate Price Test under the MFA Test.**

8 A. As summarized above, the key quantifiable difference in rates and charges to customers  
9 between ESP I and a hypothetical MRO is that ESP I contains an RSC that collects an  
10 average of \$79 million annually, whereas the hypothetical MRO includes a [REDACTED]  
11 [REDACTED] annual FIC instead. As shown in Exhibit RJM-28, these differences in the  
12 RSC and the FICs result in total lower customer charges between [REDACTED]  
13 [REDACTED], respectively, over the projection period under ESP I. A secondary difference is  
14 that the MRO allows DP&L to recover from ratepayers approximately [REDACTED] of  
15 environmental costs related to generation. Because each of these costs is higher under the  
16 MRO than the ESP, the ESP is more favorable under the Aggregate Price Test.

17 **Q. Are there other relevant factors to consider in undertaking your analysis of the MFA**  
18 **Test?**

19 A. Yes. In addition to the direct comparison of rates and charges to customers captured by the  
20 Aggregate Price Test, the MFA Test also considers other quantifiable and non-quantifiable  
21 differences. I have identified no other quantifiable differences, but there are several non-

1 quantifiable or difficult-to-quantify differences that are relevant in terms of their benefits  
2 to customers.

3 **Q. Please describe these non-quantifiable or difficult-to-quantify differences.**

4 A. I have identified five such differences, all of which support ESP I over the hypothetical  
5 MRO. First, under the proposed ESP I, AES plans to infuse an additional \$300 million in  
6 equity versus just \$150 million under the MRO. All else equal, the additional \$150 million  
7 in equity capital under ESP I will better enable DP&L to finance its grid investment at  
8 reasonable rates and manage its debt. This additional equity contribution would have an  
9 economic benefit to DP&L's customers, albeit one that is difficult to quantify. A second  
10 benefit is that ESP I affords customers protection against excessive rates through  
11 application of the annual SEET, whereas an MRO does not. A third benefit is that ESP I  
12 provides flexibility, whereas I understand that choosing an MRO is an irreversible decision.  
13 The Commission has repeatedly found that ESPs are more favorable in the aggregate than  
14 MROs, so selecting an MRO now would eliminate the option of approving a beneficial  
15 ESP in the future. A fourth benefit is that ESP I avoids the "death spiral" that can arise  
16 under an MRO due to the bypassable nature of the FIC. As customers switch to  
17 Competitive Retail Electric Service ("CRES") providers to avoid the FIC under the MRO,  
18 the burden of that fixed charge will be spread across a smaller number of customers,  
19 causing further switching to avoid the even larger per-customer charge, and so on. A fifth  
20 benefit is that ESP I would reduce rate shock that can arise under an MRO because ESP I  
21 allows gradual recovery of grid modernization investments through the IIR, rather than the  
22 infrequent and lumpy increases when costs are recovered only through periodic base  
23 distribution rate cases as in an MRO. Finally, although my projections under ESP I show



that, while DP&L's financial condition would be stabilized and it would be able to make its needed capital expenditures, its operating metrics would be somewhat less robust than under a hypothetical MRO with an FIC. All else equal, these less robust metrics are a non-quantifiable difference that favors the MRO, with its higher FIC, over the ESP. However, the value of this difference is offset by the positive effect of the additional \$150 million in equity investment that AES plans to make under ESP I. This additional investment would improve DP&L's and DPL's financial integrity and help them maintain stable credit ratings, while also helping DPL to [REDACTED], with less impact on customers.

Thus, in light of the significant quantifiable cost savings provided by ESP I, as well as other non-quantifiable benefits, I conclude that ESP I is more favorable in the aggregate to DP&L's customers than an MRO.

**Q. What conclusions do you reach about the SEET for DP&L under ESP I?**

A. Based on my projections of DP&L's financial results under ESP I, DP&L has a projected return on equity ("ROE") of [REDACTED] in [REDACTED], [REDACTED] in [REDACTED], [REDACTED] in [REDACTED], and [REDACTED] in [REDACTED].<sup>9</sup> I have determined that an appropriate ROE threshold for the SEET in this case would be 15.6 percent. With a 100 basis point (1 percent) adder for new investment risk as discussed by DP&L Witness Garavaglia, this threshold would rise to 16.6 percent.<sup>10</sup> In addition, I have determined that an appropriate "safe harbor" ROE would

<sup>9</sup> Exhibit RJM-29.

<sup>10</sup> Garavaglia Testimony, at 3-8.



be 12.4 percent.<sup>11</sup> Hence, the projected annual and average ROEs for DP&L under ESP I are below both the SEET safe harbor and well below the SEET threshold in each year.<sup>12</sup>

**Q. How did you determine the “safe harbor” and SEET thresholds?**

A. Under the prospective SEET, one must compare a utility’s projected ROE to the ROEs of a group of publicly-traded companies with business and financial risk similar to that of the utility at issue. In past annual SEET proceedings, I understand that the Commission has relied on a sample of companies from the XLU exchange traded fund (“XLU”), which consists of utilities and other energy firms that have been deemed to have business and financial risk comparable to a T&D utility such as DP&L. Thus, an appropriate SEET threshold in this case that fits with Commission precedent can be calculated based on this sample. My approach in this case is to calculate the average historical ROEs for the XLU companies over the last four years to match the four year projection period in this case.<sup>13</sup> This average ROE is 10.4 percent. I then multiply this average ROE by 1.5, again based

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<sup>11</sup> In June 2010, the PUCO issued guidance on the SEET in which it stated “the Commission is willing to recognize a ‘safe harbor’ of 200 basis points above the mean of the comparable group. To that end, any electric utility earning less than 200 basis points above the mean of the comparable group will be found not to have significantly excessive earnings.” Public Utilities Commission of Ohio, Case No. 09-0786-EL-UNC, Finding and Order, June 30, 2010, at 29.

<sup>12</sup> I also have analyzed projected ROEs through 2025 provided by the Value Line Investment Survey (“Value Line”) for all of the firms in my samples. These projected ROEs produce a range of “safe harbor” ROEs (12.0 to 12.8 percent) and SEET thresholds (12.8 to 16.1 percent without a 1 percent adder, and 13.8 to 17.1 percent with the adder), that are higher than the thresholds based on historical average ROEs.

<sup>13</sup> I also analyzed two alternative samples to the XLU sample that arguably also include companies with business and financial risk comparable to DP&L. The first alternative sample consists of 24 firms that are in Value Line’s electric utility index and have debt ratings of BBB. The second consists of the 40 firms that are in one or both of the first two samples. The larger size of this latter sample provides more statistical certainty, all else equal. The safe harbor and other SEET thresholds determined based on these alternative samples are still above DP&L’s projected ROEs.

on a methodology that I understand has been favored by the Commission in past proceedings, resulting in a SEET threshold of 15.6 percent.<sup>14,15</sup>

**Q. Do you have any other observations regarding DP&L's projected ROE based on your financial projections for ESP I with RSC?**

A. Yes. As noted, DP&L's projected ROEs under this scenario range from [REDACTED] percent in 2021 to [REDACTED] percent in 2020, resulting in an average of [REDACTED] percent over the entire period. This projected average rate of return is well below the low-end of the SEET safe harbor threshold. However, it also is (a) [REDACTED] and (b) [REDACTED]. Furthermore, as noted, the average ROEs that Value Line projects for the companies in each of my samples range from 10.0 percent for the merged sample to 10.8 percent for the XLU sample. All of this evidence indicates that ESP I, as structured, is projected to result in a fair or even low projected rate of return on equity for the projected equity investment in DP&L.<sup>16</sup> Any reduction to the RSC, or other reductions to revenue

<sup>14</sup> I also have examined SEET thresholds based on multiplying the standard deviation of the average ROEs by 1.64, which I understand is another methodology accepted by the Commission. Under this alternative methodology, DP&L's projected ROEs remain under the resulting SEET thresholds.

<sup>15</sup> I also have conducted a fourth analysis as a sensitivity check. This analysis begins with a broad sample of 1,286 firms in Value Line's DataFile product and selects the 84 firms that are comparable in terms of business risk (asset beta) and financial risk (leverage). The average and standard deviation of ROEs for these risk-matched firms are both larger than the corresponding figures in the other two samples, so the resulting SEET thresholds would be larger as well.

<sup>16</sup> DP&L's calculated ROE for SEET purposes, which is based on book values, likely overstates DP&L's and AES's "economic" ROE due the large write-offs that DP&L has had to take in the past. These write-offs reflect losses in asset value that reduce the book value. When ROEs are calculated based on book values on a going forward basis, the impact of these losses is ignored. Assuming the purpose of a forward-looking SEET test is to allow evaluation of a longer-term projected ROE, a better economic measure of ROE would be "Return on Invested Capital," which adds back the impact of previous extraordinary write-offs, thereby increasing the book value of equity and reducing the ROE calculated for SEET purposes. Under this methodology, DP&L's average projected ROE under ESP I is just 4.2 percent. Exhibit RJM-29.

such as rate case outcomes that are less favorable than projected, would reduce this projected ROE below (or even further below) what appears to be a fair rate of return, or cost of equity capital, potentially making the planned equity infusions uneconomic.

**Q. Please identify any exhibits attached to your testimony.**

**A.** My testimony is supported by the following exhibits:

- Exhibit RJM-1 summarizes the debt of DP&L and DPL;
- Exhibit RJM-2 and Exhibit RJM-3 compare the current projections to historical data and prior projections;
- Exhibit RJM-4 provides the grid of financial metrics used in the Moody's credit rating model;
- Exhibit RJM-5, Exhibit RJM-6, and Exhibit RJM-7 summarize the financial projections, provide credit ratings, and summarize the debt activity, respectively, for DP&L and DPL under an MRO without an FIC;
- Exhibit RJM-8 provides the calculations supporting the FIC under the MRO;
- Exhibit RJM-9 through Exhibit RJM-11 provide similar exhibits for DP&L and DPL under an MRO with a [REDACTED] FIC;
- Exhibit RJM-12 through Exhibit RJM-14 provide similar exhibits for DP&L and DPL under an MRO with a [REDACTED] FIC;
- Exhibit RJM-15 through Exhibit RJM-17 summarize the financial projections, provide credit ratings, and summarize the debt activity, respectively, for DP&L and DPL under ESP I;
- Exhibit RJM-18 and Exhibit RJM-20 summarize the financial projections and summarize the debt activity DP&L and DPL under an ESP without the RSC;

- Exhibit RJM-21 through Exhibit RJM-27 provide an analysis of the relation between system quality (SAIDI and SAIFI) and capital expenditures;
- Exhibit RJM-28 summarizes the results of the MFA Test;
- Exhibit RJM-29 and Exhibit RJM-30 provide the ROEs and the ROE thresholds for SEET, with supporting detail in Exhibit RJM-31 through Exhibit RJM-34;
- Exhibit RJM-35 provides the DP&L ROE for an ESP without the RSC; and
- Exhibit RJM-36 through Exhibit RJM-45 provide projected financial statements (income statement, balance sheet, statement of cash flows) for both DP&L and DPL under the three MRO scenarios and the two ESP scenarios.

### **III. BACKGROUND**

#### **A. Description of DPL and its Subsidiaries**

**Q. Please describe the organizational structure of DPL and its subsidiaries.**

A. The primary entities that I analyze are DPL, a diversified regional energy company that is a wholly-owned subsidiary of The AES Corporation; and DP&L, the principal subsidiary of DPL and a public utility. Over 95 percent of DPL's revenues are derived from DP&L.<sup>17</sup> Thus, DPL's primary asset is DP&L and, therefore, DPL relies primarily on DP&L for cash flow with which to pay its debt.

DP&L previously owned interests in multiple coal-fired and peaking electric generating facilities, but on October 1, 2017, it transferred most of those assets to AES Ohio Generation ("AOG"), an affiliate of DP&L and wholly-owned subsidiary of DPL.<sup>18</sup> AOG

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<sup>17</sup> 2019 10-K, at 26.

<sup>18</sup> DPL Inc. and DP&L Form 10-Q for the period ending March 31, 2018, at 5-6.

1 began selling generation facilities in December 2017 and used the roughly \$300 million in  
2 proceeds to retire debt.<sup>19</sup> AOG's primary remaining asset is an interest in Conesville Unit  
3 4, a coal-fired electrical generation unit that does not meet the thresholds to be a separate  
4 reportable operating segment and is scheduled to close by May 2020.<sup>20</sup>

5 DP&L continues to sell its proportional share of energy and capacity from its ownership  
6 share of OVEC into the wholesale market.<sup>21</sup>

7 DPL owns other subsidiaries that are small relative to DP&L. DPL's other subsidiaries  
8 include Miami Valley Insurance Company ("MVIC"), which provides insurance services  
9 to DPL and its subsidiaries, and Miami Valley Lighting ("MVLt"), which maintains  
10 outdoor lighting for governments and businesses.<sup>22</sup> DPL also has a wholly-owned business  
11 trust, DPL Capital Trust II, formed for issuing trust capital securities to investors.<sup>23</sup>

12 DPL and its subsidiaries employed 633 people as of January 31, 2020, of which 630 were  
13 employed by DP&L.<sup>24</sup> Approximately 59 percent of all DPL employees are under a  
14 collective bargaining agreement, which expires October 31, 2020.

15 **Q. Describe DP&L's service area.**

16 A. DP&L has the exclusive right to provide transmission and distribution services to  
17 approximately 526,000 customers located in West Central Ohio.<sup>25</sup> DP&L provides retail

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<sup>19</sup> DPL Inc. and DP&L Form 10-Q for the period ending March 31, 2018, at 6, 31, 39, 69; 2019 10-K, at 10, 77, 106, 125. In addition to these transactions, DPL and AOG also retired the Stuart Station and the Killen Station on May 31, 2018. DPL Inc. and DP&L SEC Form 10-Q for the period ending June 30, 2018, at 31.

<sup>20</sup> DPL Inc. and DP&L Form 10-K for the fiscal year ending December 31, 2018, at 5, 9, 32.

<sup>21</sup> DP&L has a 4.9 percent contractual interest in OVEC. The Hutchings facility was closed in 2013. 2019 10-K, at 9, 33, 102.

<sup>22</sup> 2019 10-K, at 6.

<sup>23</sup> DPL Inc. and DP&L Form 10-Q for the period ending September 30, 2018, at 12.

<sup>24</sup> 2019 10-K, at 10.

<sup>25</sup> 2019 10-K, at 55.

SSO electric service to residential, commercial, industrial, and governmental customers in a 6,000 square mile service area that comprises the majority of 13 counties surrounding Dayton and portions of an additional 11 counties.

**Q. Describe the general age and condition of DP&L's facilities.**

A. As described by Witness Garavaglia, DP&L's facilities are considerably aged and in need of investment. As I explain in more detail later in my testimony, Mr. Garavaglia's description of the condition of DP&L's facilities is consistent with the relatively low cumulative capital expenditures that DP&L has made to date likely due in significant part to the financial difficulties of the DP&L/DPL complex.

**B. Financial Modeling Approach**

**1. Overview**

**Q. Please summarize the nature of the financial analysis that you are sponsoring.**

A. My financial analysis focuses on projected financial results for DP&L and DPL under two main rate and financing scenarios, ESP I and a hypothetical MRO, which are described below.

My analysis is based on financial projections for 2020 through 2023 that feed into an integrated financial model that I have developed for both DP&L and DPL. My integrated financial models include balance sheets, income statements, and cash flow statements that are linked together.

Another important aspect of an integrated financial model that includes both financing and investing cash flows in addition to cash flow or funds from operations, is that the various

parts of the model are interdependent. Specifically, for example, if cash flow from operations is lower, all else equal, DP&L and/or DPL will have fewer internally generated resources to pay debt, fund capital expenditures, or pay a return to equity investors. In that case, the Company may need to raise additional external capital, seek forbearance from its lenders, reduce capital expenditures or O&M, or take other actions to preserve cash and avoid financial distress. Similarly, if there are restrictions in the ability of the Company to access external capital markets, the Company will need to be able to generate the necessary funds internally, either by somehow increasing revenues or cutting costs. The integrated nature of my financial model allows me to examine the impact of different assumptions simultaneously on all of these different variables.

From this integrated financial model, I also am able to calculate various financial metrics for DP&L and DPL. These metrics allow me to draw conclusions about the financial condition and integrity of each entity over time.

**Q. Please expand on the reasons that you analyze the financial results and condition of DPL in addition to DP&L.**

A. The financial results and condition of DPL – which depend on its ability to service all of its consolidated debt – affects the financial results and condition of DP&L. For example, if DPL experiences financial distress, it would have a negative effect on DP&L including, but not limited to, reductions or other limits on capital expenditures or O&M that would negatively affect service quality, unfavorable changes in DP&L’s credit ratings, increased cost of debt/borrowing costs, and redirecting management attention and effort to managing through financial distress. Also, just as importantly, when DP&L seeks incremental debt

capital from outside lenders to finance grid modernization, it will require a healthy parent in order to obtain the best terms possible for its customers.

The credit rating agencies recognize the intertwined nature of DP&L and DPL in determining their ratings. A quote from Moody's illustrates this dependency:

This high percentage of parent leverage drives the relatively wide differential between the credit quality of DPL and its utility subsidiary. It also limits DP&L's financial flexibility, and in the absence of ring-fencing provisions also tempers the utility's credit quality.<sup>26</sup>

Similarly, Standard & Poor's ("S&P") assigns each of the two entities the lower of DPL's and DP&L's stand-alone ratings.<sup>27</sup> Thus, DP&L and DPL both always have the same S&P rating, which emphasizes the fact that S&P views the two entities essentially as one and the same for credit rating purposes.

**Q. Please describe the general approach that you take to measure and analyze the financial condition and results of DP&L and DPL.**

A. As I have noted, timely and full service of the debt issued by DP&L and DPL will depend heavily on the cash flow from the regulated operations of DP&L, DPL's primary subsidiary and source of operating profits. However, DP&L's available cash flow is subject to certain constraints. First, DP&L's operating profits must be used to pay interest and any contractual principal obligations ("debt service obligations") on its own debt first, thereby

<sup>26</sup> Moody's Investors Service, "Dayton Power & Light Company: Update Following Ratings Confirmation with a Negative Outlook," December 30, 2019 ("Moody's December 2019 Credit Opinion for DP&L"), at 5. *See also*, Moody's Investors Service, "Moody's Upgrades DPL to Ba1 and DP&L to Baa2, Maintains Positive Outlook," October 3, 2018, at 1 (Noting that the "material amount of holding company debt ... tempers DP&L's credit quality because the utility is the only source of cash flow to service the parent debt").

<sup>27</sup> *See, e.g.*, S&P Global Ratings, "Research Update: DPL Inc. And Subsidiary Upgraded Following Sale of Merchant Generation Assets," March 30, 2018, at 2, 7; S&P Global Ratings, "Research Update: DPL Inc. And Subsidiary Dayton Power & Light Co. Upgraded to 'BB' and Placed on CreditWatch Positive," December 20, 2017, at 2, 4; S&P Ratings Services, "General Criteria: Group Rating Methodology," November 19, 2013, at 7, 17.



1 making DPL's debt subordinated to DP&L's debt in order of payment. Second, DP&L  
2 must attempt to make capital and O&M expenditures for its transmission and distribution  
3 network, subject to the constraint that its remaining free cash flow also is needed to service  
4 debt issued by DPL.<sup>28</sup> To the extent that capital or O&M expenditures can be delayed or  
5 reduced, additional cash flows may be available for debt service at DPL, and vice versa.<sup>29</sup>  
6 Thus, the ability of both entities to service their debt and achieve financial health in line  
7 with industry peers in the medium to long term will directly depend on the cash flows of  
8 DP&L.

9 **Q. You mentioned above that DP&L may delay or diminish capital or O&M**  
10 **expenditures in order to meet its debt service. Would that have an impact on service**  
11 **quality?**

12 **A.** Yes. As I have noted in previous testimony, reduced capital expenditures can be expected  
13 to reduce service quality, all else equal. Later in this testimony, I discuss my empirical  
14 analysis of this effect using data on a sample of T&D utilities. I also discuss DP&L's  
15 historical and projected capital expenditures under the ESP I and MRO financial projection  
16 scenarios, and the potential effect of different levels of such expenditures on DP&L service  
17 quality.

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<sup>28</sup> I use "free cash flow" to mean net cash flow remaining after payment of all cash costs, including debt service and capital expenditures.

<sup>29</sup> Garavaglia Testimony, at 15-16. I understand that the amount of any remaining cash flows that can be provided to DPL may be limited by regulations.

**Q. What is the impact of the Company's financial health and credit rating on DP&L's ability to make needed capital and O&M expenditures?**

A. DP&L needs to have sufficient cash flows to cover O&M expenses as well as make capital investments. An investment grade credit rating will allow the utility to have access to the capital it needs at a reasonable price. The need to service the debt of DP&L and DPL means there will be less operating cash flow is available for O&M and capital expenditures, including investment in grid modernization, and vice versa. By preserving access to capital, DP&L can raise additional debt and equity financing and fund the O&M and capital expenditures that it needs to make in order to provide safe and reliable service, and to modernize its grid. Further, it is important to note that DP&L's financial health and credit rating depends in part on DPL's financial health and credit rating. For example, if DPL has a higher credit rating then, all else equal, DP&L will be less "constrained" by the need to supply DPL with cash flows for debt service, because DPL will have more options in meeting its short- and long-term financing needs. If DPL is not financially sound, however, this will put downward pressure on DP&L's credit ratings due to "notching" by the credit rating agencies, reducing DP&L's ability to invest due to a higher cost of capital, as well as the liquidity effects as previously discussed.

**Q. What are DPL's options for servicing its debt other than using cash flow from DP&L?**

A. DPL can depend to a lesser extent on cash flow from its smaller subsidiaries such as AOG, MVLt, and MVIC. However, total revenues from these subsidiaries represent under five percent of DPL's revenue and, therefore, are insufficient to fully service DPL's debt.

In the absence of sufficient cash flows from these units or DP&L, DPL would have to look to other potential sources for its debt service, which could include increases in short-term

1 or other debt, reductions in capital expenditures, and/or reductions in operating expenses  
2 at any, or all, of its subsidiaries. However, issuing new debt (including the refinancing of  
3 \$380 million by 2021), or reducing capital expenditures and/or O&M expenses, would be  
4 problematic. For example, the financial stress on the Company without an RSC would  
5 make issuing new debt at reasonable rates difficult or impossible, and reductions in capital  
6 expenditures would have both short- and long-term negative effects on the Company, its  
7 subsidiaries (particularly DP&L), and the customers who they serve. Further, the DPL  
8 revolver matures in June 2023, and [REDACTED]

9 [REDACTED].  
10 The two companies are further intertwined by their credit agreements. As explained by  
11 Company Witness Garavaglia, a default by DPL on its debt can result in a change of control  
12 of DP&L, as the DPL creditors take DPL's shares of DP&L that serve as collateral.<sup>30</sup> This  
13 change of control of DP&L can then accelerate repayment of the DP&L revolver and the  
14 DP&L tax-exempt bonds. In such a scenario, DP&L's failure to timely repay these two  
15 credit facilities would trigger cross-default provisions under DP&L's remaining credit  
16 agreements.

17 **Q. Please describe the long-term debt held by DP&L and DPL.**

18 A. As shown in Exhibit RJM-1, DPL had approximately \$789 million in outstanding long-  
19 term debt as of December 31, 2019. This debt included \$380 million in bonds maturing in  
20 2021 with an interest rate of 7.25 percent, \$400 million in bonds maturing in 2029 with an

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<sup>30</sup> Garavaglia Testimony, at 17-22

interest rate of 4.35 percent, and about \$16 million in a Capital Trust note with a maturity in 2031 and an interest rate of 8.125 percent.<sup>31</sup>

DP&L had approximately \$574 million in outstanding long-term debt as of December 31, 2019, including \$140 million in tax-exempt bonds maturing in 2020 at interest rates ranging from 2.49 percent to 2.93 percent, \$425 million in First Mortgage Bonds maturing in 2049 at an interest rate of 3.95 percent, and about \$18 million in a U.S. Government Note maturing in 2061 with an interest rate of 4.20 percent.<sup>32</sup> Substantially all property, plant, and equipment of DP&L is subject to the lien of the mortgage securing DP&L's First and Refunding Mortgage.<sup>33</sup>

The consolidated total long-term debt of DP&L and DPL is \$1.36 billion as of December 31, 2019. Both DP&L and DPL have financial covenants related to their debt, which I describe later in this testimony.

**Q. Will any of this long-term debt need to be refinanced in the projection period?**

A. Yes. DPL must refinance its \$380 million in 7.25 percent notes by October 2021. For purposes of my analysis, I have [REDACTED]. In [REDACTED]. In the scenario of an MRO without an FIC or an ESP without the RSC, I optimistically assume the interest rate upon refinancing [REDACTED], despite the significant deterioration in DPL's financial condition. Under a more realistic assumption regarding DPL's access to

<sup>31</sup> The discrepancy between the stated \$788.7 million and the sum of the bonds plus Capital Trust note results from credits of \$5.9 million for Unamortized Deferred Financing Costs and \$1.0 million net Unamortized Debt Discounts and Premiums.

<sup>32</sup> The discrepancy between the stated \$574.4 million of DP&L long-term debt in Exhibit RJM-1 and the sum of the tax-exempt bonds, First Mortgage Bonds, and U.S. Government Note reflects credits of \$5.4 million for Unamortized Deferred Financing Costs and \$2.7 million for Unamortized Debt Discounts.

<sup>33</sup> 2019 10-K, at 77.

(and cost of) capital absent an FIC or the RSC, its financial condition would be worse than depicted here.

Under both ESP I and the MRO, [REDACTED]

due to an improvement in the credit ratings since it last refinanced this debt in 2015 and changes in capital market conditions. I also assume DP&L can issue [REDACTED]

[REDACTED].

**Q. Please describe the short-term debt facilities of DP&L and DPL.**

A. DP&L currently has a \$175 million revolving credit facility and DPL has a \$125 million revolving credit facility.<sup>34</sup> As of December 31, 2019, DP&L and DPL had [REDACTED], respectively, of outstanding borrowings on these lines of credit.<sup>35</sup> DP&L and DPL have historically not drawn heavily on their revolvers.

**Q. Please describe the covenants that govern the debt of DP&L and DPL.**

A. DPL is subject to several covenants in its credit agreements. One covenant limits *Debt / EBITDA* (measured on a consolidated basis) to 7.0x or less.<sup>36</sup> DPL must also maintain a ratio of EBITDA to interest expense of at least 2.25x.<sup>37</sup> DPL's credit agreements also prohibit dividend payments from DPL to AES if DPL does not meet certain financial metrics.

DP&L's unsecured revolving credit agreement has one financial covenant which restricts Total Debt to Total Capitalization to be no greater than 0.67x. DP&L's Bond Purchase and

<sup>34</sup> 2019 10-K, at 75.

<sup>35</sup> 2019 10-K, at 75.

<sup>36</sup> 2019 10-K, at 76.

<sup>37</sup> 2019 10-K, at 76.

Covenants Agreement from its August 2015 issuance of \$200 million of First Mortgage Bonds has two financial covenants. The first restricts Total Debt to Total Capitalization to be no greater than 0.65x, except that this limit is suspended if DP&L's long-term indebtedness is less than or equal to \$750 million.<sup>38</sup> As of December 31, 2019, DP&L's borrowing level was below this threshold, meaning this limitation is not currently applicable. The second financial covenant limits the ratio of EBITDA to Interest Expense to be not less than 2.5x.<sup>39</sup> The DP&L revolver also has a covenant that requires Total Debt to Total Capitalization to be no greater than 0.67x.

**Q. Please describe how you have applied the financial modeling approach described above in this case.**

A. The financial model produces a set of financial metrics, as well as projected debt ratings, which I use to assess the financial condition and measure financial integrity of DP&L and DPL.<sup>40</sup> My analysis begins with financial projections of the income statements, balance sheets, and cash flow statements for DP&L and DPL for the period from January 2020 through December 2023. The first set of projections is for a hypothetical MRO without an FIC. The second set is for the MRO with an FIC in the range of [REDACTED]. The third set of projections is ESP I with the RSC. The fourth set of projections is for an ESP that lacks the RSC. Under the MRO scenario without the FIC and the ESP scenario without the RSC, I understand that AES would not make a second \$150 million equity investment in 2021 and I assume DP&L would not [REDACTED].

<sup>38</sup> 2019 10-K, at 77.

<sup>39</sup> 2019 10-K, at 77.

<sup>40</sup> These two terms are defined more formally below.

1 While the Company provided the underlying financial projections for the ESP and MRO  
2 scenarios, I did some independent comparisons of the projected data to historical and other  
3 data and found the projections to be reasonable.

4 In the remainder of this section I discuss the input data for my calculations, background on  
5 my methodology and, finally, my analysis of the financial condition and integrity of DP&L  
6 and DPL under the two specified scenarios.

7 **2. Input Data for Financial Projections**

8 **Q. What information did you use to develop your financial projections for DP&L and**  
9 **DPL?**

10 A. The pro forma financial statements that serve as the primary input to my model were  
11 provided to me by the Company. The financial projections are based on the Company's  
12 financial model for the period from 2019 to 2023. Witness Garavaglia discusses how the  
13 Company prepared these projections.<sup>41</sup>

14 **Q. Have you done anything to assure yourself that the input data for the financial**  
15 **projections are sound and reasonable?**

16 A. Yes. I performed the following procedures:

- 17 • I reviewed the information provided to me by the Company and discussed the  
18 underlying assumptions with the Company personnel responsible for their  
19 preparation.

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<sup>41</sup> Garavaglia Testimony, at 26-30.

- 1 • I tested the projections by comparing them to historical performance of the
- 2 Company (see Exhibit RJM-2).
- 3 • I tested the projections by comparing them to the Company projections I used in
- 4 my prior testimony (see Exhibit RJM-2 and Exhibit RJM-3).

5 **Q. What were the results of this analysis?**

6 A. The projected revenues, expenses, and other information provided by the Company appear  
7 reasonable based on my comparisons. As shown in Exhibit RJM-3, the load projections in  
8 the current projections are similar to Company's prior projections. Distribution charges are  
9 also similar. Projected RTO revenues follow an upward trajectory due to DP&L's recent  
10 transmission formula rate filing and the significant future capital investment anticipated  
11 for recovery in that formula rate. NITS charges are higher due to higher projected  
12 transmission rate base, specifically the request to include Construction Work In Progress  
13 for certain projects in the formula rate base. Exhibit RJM-2 compares the current and prior  
14 projections graphically, along with the historical data since 2015. The dip in revenue in  
15 2021 is due in large part to a [REDACTED]. The  
16 current projections have higher O&M than the prior projections, both in dollars and as a  
17 percentage of revenue. I understand that the main drivers of the increased O&M consist of  
18 true-up riders, namely uncollectible expense related to the state-run Universal Service Fund  
19 and amortization of major storm expenses, as well as the deferral/amortization of certain  
20 expenses, such as vegetation management expenses and decoupling costs.<sup>42</sup>

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<sup>42</sup>.Exhibit RJM-2 and Exhibit RJM-3.



1 **Q. How did you use these data in your analysis?**

2 A. These projections provide the information needed to calculate the cash inflows and  
3 outflows for DP&L and DPL, as well as various financial metrics, some of which are inputs  
4 to the credit rating model that I use.

5 **3. Credit Ratings**

6 **Q. What are the current corporate credit ratings for DP&L and DPL?**

7 A. Table 1 summarizes DP&L's and DPL's ratings from the three major credit rating agencies,  
8 Moody's, Standard & Poor's, and Fitch. The lowest investment grade rating is Baa3 (BBB-  
9 on the S&P or Fitch scale) and the highest speculative rating is Ba1 (BB+). DP&L is on  
10 the low end of investment grade for Moody's and Fitch and is below investment grade for  
11 S&P. All three agencies rate DPL below investment grade.

**TABLE 1**  
**SUMMARY OF CURRENT CREDIT RATINGS**

	DPL (Senior Unsecured)		DP&L (Issuer)	
	Rating	Outlook	Rating	Outlook
Moody's	Ba1	Negative	Baa2	Negative
Fitch (Moody's scale) <sup>43</sup>	Ba1	Negative	Baa3	Negative
S&P (Moody's scale) <sup>44</sup>	Ba2	Negative	Ba2	Negative

12 S&P noted that the termination of ESP III would likely "weaken DP&L's financial measure  
13 materially" and downgraded DP&L and DPL to BB (Ba2 on the Moody's scale) with a

<sup>43</sup> Fitch's ratings are BBB- for DPL and BBB for DP&L.

<sup>44</sup> S&P's rating is BBB- for both DP&L and DPL.

1 negative outlook on November 26, 2019.<sup>45</sup> Fitch downgraded DP&L to BBB- (Baa3 on the  
2 Moody's scale) and DPL to BB+ (Ba1 on the Moody's scale), both with negative outlooks,  
3 on December 23, 2019, citing the loss of the DMR (but assuming a partial offset of \$75  
4 million to \$80 million from the RSC) and other riders.<sup>46</sup> Moody's maintained its ratings of  
5 Baa2 for DP&L and Ba1 for DPL on December 30, 2019, but revised its outlook to  
6 negative.<sup>47</sup>

7 **Q. What is the significance of the negative outlook on the corporate credit ratings of**  
8 **DP&L and DPL?**

9 A. The outlook indicates the potential direction of ratings in the short to medium term. A  
10 negative outlook means that the rating may be downgraded. Typically, rating agencies  
11 identify potential future developments that may, individually or collectively, lead to a  
12 negative or positive rating action.

13 **Q. Have the rating agencies addressed the credit ratings that would be assigned to DP&L**  
14 **and DPL if the Commission were to invalidate the RSC?**

15 A. Each of the major credit rating agencies has indicated their current ratings assume  
16 continuation of a \$75 million to \$80 million RSC, and that lower amounts could lead to  
17 negative changes in the credit ratings of DP&L and DPL. Moody's writes "[a] downgrade  
18 of the ratings of DPL and DP&L is likely if there is deterioration of the credit metrics as a

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<sup>45</sup> S&P Global Ratings, "DPL Inc. and Subsidiary Downgraded to 'BB'; Outlooks Remain Negative," November 26, 2019 ("S&P November 2019 Credit Opinion"), at 1.

<sup>46</sup> Fitch Ratings, "Fitch Downgrades DPL to 'BB+' and DP&L to 'BBB-'; Outlook Negative," December 23, 2019 ("Fitch December 2019 Credit Opinion"), at 1.

<sup>47</sup> Moody's December 2019 Credit Opinion for DP&L, at 1; Moody's Investors Service, "DPL Inc. Update Following Ratings Confirmation with a Negative Outlook," December 30, 2019 ("Moody's December 2019 Credit Opinion for DPL"), at 1.

1 result of the recent regulatory developments, including consolidated CFO pre-W/C to debt  
 2 falling below 8%.”<sup>48</sup> Fitch and S&P noted the need for DP&L to reduce its capital  
 3 expenditures in response to the reduced cash flow. While DP&L projects capital  
 4 expenditures of [REDACTED] in [REDACTED] rising to an average of [REDACTED] [REDACTED]  
 5 [REDACTED],<sup>49</sup>

- 6 • Fitch based its rating on the assumption of \$120 million capex for 2020 and noted  
 7 that “[r]esolution of the Negative Outlook depends on the path that DP&L will take  
 8 to replace the loss of several riders due to the termination of ESP 3 on a timely  
 9 manner, including the important Distribution Investment Rider (DIR), the revised  
 10 capex plan, and clarity on future rate plans beyond 2020.”<sup>50</sup>
- 11 • S&P writes: “[w]e could lower our ratings on DPL and DP&L within the next  
 12 twelve months by one or more notches if we conclude that DPL is unable [to]  
 13 implement rates consistent with its ESP 1 framework.”<sup>51</sup>

14 These statements indicate that a failure to continue the RSC would be a worse-than-  
 15 expected outcome that could lead to negative rating actions, and even with the RSC DP&L  
 16 will face pressure in funding its anticipated capital expenditures. All else equal, lower  
 17 credit ratings would increase the cost of capital for DP&L, which would ultimately hurt  
 18 customers to the extent the higher cost of capital is included in rates.

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<sup>48</sup> Moody’s December 2019 Credit Opinion for DP&L, at 2.

<sup>49</sup>Exhibit RJM-3.

<sup>50</sup> Fitch December 2019 Credit Opinion, at 1-2.

<sup>51</sup> S&P November 2019 Credit Opinion, at 1-2.

**Q. Aside from credit ratings, what other financial metrics do you use to evaluate the financial condition and financial integrity of DP&L and DPL?**

A. In addition to credit ratings, I also consider metrics such as *Cash Flow / Debt*, as well as financial covenants such as *Debt / EBITDA* and *EBITDA / Interest*.

**Q. How did you determine indicated credit ratings for DP&L and DPL during the projection period?**

A. Moody's publishes details on the credit rating methodology that underlies its credit ratings.<sup>52</sup> I use the financial projections for DP&L and DPL to calculate the four key quantitative metrics that Moody's uses to determine credit ratings for regulated utilities.<sup>53</sup>

1. *Cash Flow / Debt*
2. *Retained Cash Flow / Debt*
3. *Interest Coverage*
4. *Debt / Capital*

For each of these variables I summarize in Exhibit RJM-4 the range of values that Moody's considers for each credit rating. Moody's announced in April 2018 that DP&L's exit from volatile merchant operations lowered the group's business risk profile such that the financial performance of both DP&L and DPL would be assessed using Moody's low business risk grid for rating regulated electric and gas utilities.<sup>54</sup>

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<sup>52</sup> To my knowledge, S&P and Fitch do not publish the detail of their methodologies necessary to perform similar estimates of their ratings.

<sup>53</sup> Moody's December 2019 Credit Opinion for DP&L, at 7.

<sup>54</sup> Moody's Investors Service, "DPL Inc.: Update Following Rating Upgrade to Ba2, Positive Outlook," April 11, 2018 2019 ("Moody's April 2018 Credit Opinion for DPL"), at 1-2; Moody's December 2019 Credit Opinion for DP&L, at 7.

1 *Cash Flow / Debt* is the ratio of cash flow from operations before changes in working  
2 capital relative to debt.<sup>55</sup> A higher ratio indicates a stronger financial position and a higher  
3 credit rating. Moody's indicates that Baa-rated regulated utilities on the low-risk grid tend  
4 to have *Cash Flow / Debt* ratios of 11 percent to 19 percent.<sup>56</sup> Moody's most recent credit  
5 rating report on DP&L states that consolidated *Cash Flow / Debt* falling below 8 percent  
6 could trigger a downgrade.<sup>57</sup>

7 *Retained Cash Flow / Debt* is similar to *Cash Flow / Debt*, except the numerator subtracts  
8 dividend payments from *Cash Flow*. For DPL, the projections do not include any dividends  
9 so there is no difference in the two measures of cash flows. Moody's indicates that Baa-  
10 rated regulated utilities on the low-risk grid tend to have *Retained Cash Flow / Debt* ratios  
11 of 7 percent to 15 percent.<sup>58</sup>

12 *Interest Coverage* is calculated as the ratio of cash flow from operations plus interest  
13 expense and changes in working capital (but after changes in other assets and liabilities  
14 such as regulatory capital and cash collateral) relative to interest expense. The ratio  
15 indicates the amount of cash flow available to pay interest, capital expenditures, and other  
16 obligations per dollar of interest due, so a higher ratio is indicative of a higher credit rating.

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<sup>55</sup> I measure debt as short- and long-term debt plus pension liability. I measure CFO pre-WC as cash flow from operations plus increases in accounts receivable, inventory, fixed regulatory assets, and general taxes applicable to future years, less the increase in accounts payable, accrued interest, taxes payable, regulatory liabilities, and non-current deferred income taxes. I have verified that my calculations closely replicate those of Moody's.

<sup>56</sup> Moody's Investors Service, "Rating Methodology: Regulated Electric and Gas Utilities," June 23, 2017 ("Moody's Rating Methodology Report"), at 22. I focus on a Baa rating in order to maintain consistency with DP&L's current rating.

<sup>57</sup> Moody's December 2019 Credit Opinion for DP&L, at 2.

<sup>58</sup> Moody's Rating Methodology Report, at 22.

Moody's indicates that Baa-rated regulated utilities tend to have *Interest Coverage* ratios of 3.0x to 4.5x.<sup>59</sup>

*Debt / Capital* is calculated as the ratio of debt to capital (which includes short- and long-term debt, common equity, preferred stock, deferred taxes, and pension benefits). The ratio indicates the degree of financial leverage. A higher ratio (greater leverage) is indicative of a lower credit rating. Moody's indicates that Baa-rated regulated utilities on the low-risk grid tend to have *Debt / Capital* ratios of 50 percent to 59 percent.<sup>60</sup>

Table 2 summarizes the weights that Moody's assigns to these metrics for regulated utilities.

**TABLE 2**  
**WEIGHTS ON FINANCIAL METRICS IN MOODY'S**  
**CREDIT RATING MODEL**

Financial Metric	Weight <sup>61</sup>
<i>Cash Flow / Debt</i>	15.0%
<i>Retained Cash Flow / Debt</i>	10.0%
<i>Interest Coverage</i>	7.5%
<i>Debt / Capital</i>	7.5%
<i>Total for Financial Metrics</i>	40.0%

To assign a credit rating, I assign a numerical score for each financial metric based on the Moody's criteria summarized in Exhibit RJM-4. For example, *Interest Coverage* of 3.5x translates to a Baa rating and a score of 9.<sup>62</sup> *CF / Debt* and *RCF / Debt* metrics of 9.0 percent and 8.0 percent result in ratings (scores) of Ba (12) for *CF / Debt* and Baa (9) for

<sup>59</sup> Moody's Rating Methodology Report, at 22.

<sup>60</sup> Moody's Rating Methodology Report, at 22.

<sup>61</sup> Moody's Rating Methodology Report, at 4.

<sup>62</sup> Moody's Rating Methodology Report, at 5 (explaining numerical scores for each letter rating).

*RCF / Debt. A Debt / Capital ratio of 70.0 percent corresponds to a B rating and a score of 15. The composite rating score would be  $(0.075 \times 9 + 0.150 \times 12 + 0.100 \times 9 + 0.075 \times 15) / 0.40 = 11.25$ , which translates to a rating of Ba1.<sup>63</sup>*

The projections forecast each metric over time, allowing for similar calculations and ratings based on the financial metrics each year.

**Q. Do credit ratings assigned by Moody's depend on factors other than the ones you have mentioned?**

A. Yes. In addition to these four quantitative factors, which account for 40 percent of the credit rating, Moody's also considers several qualitative factors that determine the remaining 60 percent. These factors are:

- Regulatory Framework (25 percent);<sup>64</sup>
- Ability to Recover Costs and Earn Returns (25 percent);<sup>65</sup> and
- Diversification (10 percent).<sup>66</sup>

These qualitative ratings, which contribute 60 percent to the overall rating, are updated each year based on the subjective judgment of the rating agency analysts.<sup>67</sup> While the

<sup>63</sup> In Moody's rating scale each letter grade is further divided into high, medium and low based on a numerical suffix (e.g., Ba2 is below Ba1 but above Ba3).

<sup>64</sup> Within Regulatory Framework, Moody's has two equally weighted sub-factors: 1) Legislative and Judicial Underpinnings of the Regulatory Framework (currently rated A for both entities) and 2) Consistency and Predictability of Regulation (recently reduced from A to Baa for DPL; currently a "score" of A for DP&L despite a "measure" of Baa).

<sup>65</sup> Within Ability to Recover Costs and Earn Returns, Moody's has two equally weighted sub-factors: 1) Timeliness of Recovery of Operating and Capital Costs (currently rated A for both entities) and 2) Sufficiency of Rates and Returns (currently rated Baa for both entities).

<sup>66</sup> For entities such as DP&L and DPL that lack material generation, Moody's rating for Diversification is based on Market Position (currently rated Ba for both entities).

<sup>67</sup> For example, the definition of a Baa rating for Sufficiency of Rates and Returns is: "Rates are (and we expect will continue to be) set at a level that generally provides full operating cost recovery and a mostly fair return on investments, but there may be somewhat more instances of regulatory challenges and disallowances, although

specific bases for such changes are difficult to observe directly, there is evidence in the Moody's rating agency reports for DP&L and DPL that can be used to assess the likely rating agency updates to at least two qualitative regulatory ratings.<sup>68</sup> The impact of such changes can be significant. For example, a movement of two qualitative regulatory ratings from Aa to Ba would result in a rating reduction of either two or three notches, all else equal.<sup>69</sup>

**Q. Please summarize your observations regarding the relationship between rating agencies' assessment of the qualitative regulatory environment faced by DP&L and DPL and the credit ratings those agencies assign to DP&L and DPL.**

A. A review of recent Credit Opinions published by Moody's shows that changes to Moody's overall credit rating or its rating outlook for DP&L and DPL have generally coincided with revisions to Moody's current or forecasted view of DP&L and DPL's regulatory environment.

Table 3 shows how Moody's views of these factors have evolved with the credit ratings of DP&L and DPL. In the case of DPL, there is a clear pattern of Moody's scores for qualitative regulatory factors improving over time together with the Company's overall credit score. In August 2016, Moody's scored present and expected future regulatory

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ultimate **rate outcomes are sufficient to attract capital without difficulty**. In general, this will translate to returns (measured in relation to equity, total assets, rate base or regulatory asset value, as applicable) that are average relative to global peers, but may at times be somewhat below average." Moody's Rating Methodology Report, at 15 (emphasis added).

<sup>68</sup> These are 1) Consistency and Predictability of Regulation and 2) Timeliness of Recovery of Operating and Capital Costs.

<sup>69</sup> Moody's assigns a numeric value of 12 to Ba ratings and a numeric value of 3 to Aa ratings. To see how this would change the overall rating, I compute that such a change would add  $(12 - 3) \times 25$  percent = 2.25 to DP&L's composite score. From this, I see that a firm at the high end of its rating category would move down two notches, while a firm at the low end of its rating category would move down three notches. Moody's Rating Methodology Report, at 5-6.



consistency and timeliness of recovery factors for DPL as Baa, while the company had an overall rating of Ba3 with a negative outlook.<sup>70</sup> In April of 2018, DPL's current score for regulatory consistency remained at Baa, but Moody's forward view improved to A; this coincided with an improvement in DPL's overall rating to Ba2 with a positive outlook.<sup>71</sup> By December of 2018, Moody's had increased DPL's current score for Consistency and Predictability of Regulation to A from Baa, and Moody's also increased its forward score for DPL's timeliness of cost recovery to A from Baa. These favorable changes in Moody's view of the regulatory climate faced by DPL coincided with an increase in the overall credit rating from Ba2 to Ba1, both with a positive outlook.<sup>72</sup> Moody's specifically cited the approval and implementation of the DMR as the reason for its positive changes in the qualitative regulatory-related factors. For example, Moody's explained the April 2018 change in its rating and outlook on DPL by writing:

DPL's positive outlook reflects the positive outlook of utility subsidiary DP&L and our expectation that a credit supportive rate case outcome at the utility will allow the group to further deleverage and progressively improve its consolidated capital structure. This expectation also factors in DPL's planned use of the \$105 million per annum Distribution Modernization Rider (DMR), approved in October 2017 for at least three years, largely to service the group's debt and to fund growth of the utility's regulated distribution and transmission rate base.<sup>73</sup>

Moody's reiterated this sentiment in their December 2018 report on DPL following their upgrade of the company's credit rating to Ba1 from Ba2.<sup>74</sup> Most recently, however, Moody's reduced the Consistency and Predictability of Regulation forward view score for

<sup>70</sup> Moody's Investors Service, "DPL Inc.: Parent Holding Company of the Utility The Dayton Power & Light Company," August 11, 2016, at 8.

<sup>71</sup> Moody's April 2018 Credit Opinion for DPL, at 7, 9.

<sup>72</sup> Moody's Investors Service, "DPL Inc.: Update Following Upgrade to Ba1," December 17, 2018, at 7, 9.

<sup>73</sup> Moody's April 2018 Credit Opinion for DPL, at 2.

<sup>74</sup> Moody's Investors Service, "DPL Inc.: Update Following Upgrade to Ba1," December 17, 2018, at 4-5.

DPL to Baa.<sup>75</sup> DP&L's qualitative regulatory rating factors exhibit a similar general pattern.

**TABLE 3**  
**MOODY'S CREDIT RATINGS AND REGULATORY FACTORS**  
**FOR DP&L AND DPL**

	DPL				DP&L			
	Aug-16	Apr-18	Dec-18	Dec-19	Aug-16	Nov-17	Dec-18	Dec-19
Regulatory Consistency and Predictability								
Moody's Current View	Baa	Baa	A	A	Baa	Baa	A	A
Moody's Forward View	Baa	A	A	Baa	Baa	A	A	A
Timeliness of Cost Recovery								
Moody's Current View	Baa	Baa	Baa	A	Baa	Baa	Baa	A
Moody's Forward View	Baa	Baa	A	A	Baa	Baa	A	A
Moody's Overall Company Rating	Ba3	Ba2	Ba1	Ba1	Baa3	Baa3	Baa2	Baa2
Moody's Overall Company Outlook	Negative	Positive	Positive	Negative	Negative	Positive	Positive	Negative

Notes & Sources:

Moody's Credit Opinions for DPL and DP&L.

**Q. How does your analysis account for the potential change in qualitative ratings under the various rate scenarios you consider?**

I assume that under ESP I with the RSC, Moody's would maintain the qualitative ratings it has in place as of its December 2019 credit opinions. If the RSC is rejected under ESP I, it is reasonable to expect that Moody's would reduce its assessment of the qualitative regulatory factors. While the RSC is not a financial integrity charge designed to maintain a particular credit rating or financial metrics, its disallowance would substantially reduce the cash flows available to DP&L and cause it to go into financial distress. Accordingly, in the analysis that follows, I calculate estimated credit ratings for the ESP scenario without the RSC assuming Moody's would reduce its rating for the Consistency and Predictability

<sup>75</sup> Moody's December 2019 Credit Opinion for DPL, at 8.

of Regulation sub-factor to Ba, consistent with its ratings prior to ESP III and the DMR (see Table 4).<sup>76</sup>

Similarly, under an MRO without an FIC, I assume both entities also receive a Ba score for the Consistency and Predictability sub-factor. For the MRO with a [REDACTED] FIC, I assume no change in the Consistency and Predictability sub-factor.<sup>77</sup> For the MRO with a [REDACTED] FIC, I assume that DP&L and DPL would both have ratings of A for the Consistency and Predictability sub-factor.<sup>78</sup> Because the MRO lacks an IIR for near real-time recovery of capital investments in smart grid, I reduce the score for that sub-factor from A to Baa, the level Moody's assigned prior to December 2019.<sup>79</sup>

I assume that any changes to Moody's assessment of qualitative regulatory factors would be held constant through 2023. Figure 4 summarizes the qualitative factors, with red indicating reductions from the current rating and green indicating increases.

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<sup>76</sup> Moody's description of a Ba rating for this sub-factor states "We expect that regulatory decisions will demonstrate considerable inconsistency or unpredictability or that decisions will be politically charged... we expect that the issuer will be able to obtain support when it encounters financial stress, with some potentially material delays. The regulator's authority may be eroded at times by legislative or political action." Moody's Rating Methodology Report, at 11..

<sup>77</sup> Moody's description of an A rating for this sub-factor states "The issuer's interaction with the regulator has led to a track record of largely predictable and consistent decisions. The regulator may be somewhat less credit supportive of utilities in general, but has been quite credit supportive of the issuer in most circumstances. We expect these conditions to continue." Moody's Rating Methodology Report, at 11.

<sup>78</sup> Historically, Moody's has used the same Consistency and Predictability score for the two entities, though DP&L is currently one rating category higher. Table 3.

<sup>79</sup> Moody's description of a Baa rating for this sub-factor states "Incremental capital investments may be recovered primarily through general rate cases with moderate lag..." Moody's Rating Methodology Report, at 14.

[illegible]

2 A. Yes. Moody's also applies "notching" adjustments to recognize the link between entities  
3 such as DP&L and DPL. For DPL, Moody's applies a "structural subordination" notching  
4 adjustment, which is presently a one-notch reduction to the model-indicated rating.<sup>80</sup> This  
5 adjustment recognizes that DPL creditors may be subordinated to DP&L creditors.<sup>81</sup>  
6 Moody's also applies a one-notch reduction to its current model-implied rating of DP&L  
7 to reflect the debt at DPL and the fact that DP&L is its primary source of cash for debt  
8 service.<sup>82</sup>

<sup>82</sup> Moody's December 2019 Credit Opinion for DP&L, at 7; Moody's Rating Methodology Report, at 36-37 (explaining a notching adjustment to the operating company "especially when there is a clear dependence on an OpCo's cash flow to service parent debt.").

1           **IV. RATE / FINANCIAL PROJECTION SCENARIOS**

2                   **A. Recent Changes to DP&L and DPL**

3   **Q.**     Are there any significant events over the past year that have affected the rate /  
4           financial projection scenarios that you have been asked to analyze?

5   **A.**     Yes. There have been two major changes in the past year that have important ramifications  
6           for my analysis.

7           The first is that the PUCO disallowed the DMR in November 2019. As a result, DP&L  
8           reverted to ESP I, which does not include a DMR or several other riders, such as the  
9           Distribution Investment Rider, the Uncollectible Rider, or the Decoupling Rider, but does  
10          include the RSC. Under ESP I, the RSC is projected to range between \$77 million and \$80  
11          million from 2020 to 2023.<sup>83</sup> These RSC revenues are significantly lower than the expected  
12          revenues from the DMR, which was necessary to ensure DP&L's financial integrity,  
13          maintain its grid, and finance its investment in grid modernization. The loss of the DMR  
14          and reversion to the RSC under ESP I, which Moody's characterized as "a material credit  
15          negative," caused Moody's and Fitch to reduce their ratings outlook for DP&L to negative,  
16          and caused S&P to downgrade both DPL's and DP&L's credit ratings to BB, which is  
17          below investment grade or "junk" status.<sup>84</sup> A major reason for this downgrade cited by  
18          S&P was increased regulatory risk.<sup>85</sup>

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<sup>83</sup> Exhibit RJM-15A.

<sup>84</sup> Moody's December 2019 Credit Opinion for DP&L, at 4; S&P November 2019 Credit Opinion, at 1; Fitch December 2019 Credit Opinion, at 1.

<sup>85</sup> S&P November 2019 Credit Opinion, at 1.

A second important change is that AES is making plans to inject \$300 million in cash equity into DP&L in two \$150 million tranches, one of which is projected to be made in June 2020 and one in July 2021. This substantial equity cash infusion would be on top of and in addition to the equity infusion that AES has been providing to DP&L and DPL for years through its agreements to forgo dividends and tax payments from DPL. If and when consummated, this major new investment by AES, together with approval of ESP I, will enable DP&L to borrow [REDACTED] in additional funds at reasonable rates. Together, these two actions will result in [REDACTED] in new capital for DP&L and a healthy balanced capital structure, which will allow DP&L to invest in its grid to provide safe and reliable service to its customers, as well as to invest in grid modernization.

Finally, there have been several less significant but still materially relevant developments including a reduction and restructuring of parts of the Company's debt and some changes in DP&L's projected expenditures on grid modernization that are discussed further below.

## **B. Capital Expenditures**

**Q. What level of capital expenditures does the Company anticipate during the forecast period?**

A. The Company projects total capital expenditures of [REDACTED] by DP&L over the four year forecast period.<sup>86</sup> The current forecast, which is assumed in both ESP I and the MRO, translates to an annual average of [REDACTED], an increase of approximately [REDACTED] in

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<sup>86</sup> Exhibit RJM-3.



average annual capital expenditures relative to DP&L's average expenditures for 2017 to 2019 (\$121 million).<sup>87</sup>

The projections identify the portion of the capital expenditures and associated revenue requirement for the proposed plan to modify the distribution infrastructure ("smart grid plan"). I assume that all smart grid capital costs, which total [REDACTED] for the period through 2023, will be deemed prudent and allowed into rate base. The revenue requirement is based on a [REDACTED] percent cost of equity, [REDACTED] percent cost of debt, and a capital structure with [REDACTED] percent equity. The capital expenditures for the smart grid plan begin in [REDACTED] with [REDACTED] followed by [REDACTED] in [REDACTED] and [REDACTED] in [REDACTED]. The associated revenue requirements are [REDACTED] in [REDACTED] and [REDACTED] in [REDACTED].

In sum, the total increase in projected capital expenditures would be approximately [REDACTED] [REDACTED], of which [REDACTED] is grid modernization investment and [REDACTED] represents increased "base" T&D investment relative to historic levels. The annual increase of "base" over historical average T&D investment would be [REDACTED].<sup>88</sup>

**Q. How were the projected capital expenditures determined?**

A. I understand that the Company's capital expenditure forecast reflects the amount it believes is necessary to ensure the provision of safe, reliable service to DP&L's customers, as well

<sup>87</sup> DP&L's capital expenditures in 2017, 2018, and 2019 were \$101.7, \$93.1, and \$167.1 million respectively. 2019 10-K, at 100. It is important to note that the \$120.6 million average includes 2019, a year with unusually high capital expenditures. The average for 2017 and 2018 was.

<sup>88</sup> If 2019 is excluded from the average, then the projected increase in total capital expenditures rises to [REDACTED]

as investing in its smart grid, consistent with the Company's Distribution Modernization Plan filing in PUCO Case No. 18-1875-EL-GRD.<sup>89</sup>

**Q. Would DP&L and DPL be able to avoid financial distress if the RSC is not approved and grid modernization is not pursued?**

A. No. In the short run, DP&L and DPL would be in financial distress without the RSC, as discussed above. Over the long run, grid modernization is projected to improve the financial strength of DP&L and DPL by contributing to their revenues and cash flows. Without those contributions, DP&L and DPL will be worse off in the long-run. So cancelling grid modernization while also eliminating the RSC will cause significant financial distress in the short-run, while removing a source of improved financial condition in the long run.

**Q. What have you done to satisfy yourself that DP&L has set these expenditures at an appropriate level?**

A. First, it is important to note that I have relied on DP&L and its engineers and system planners to develop reasonable projections of capital expenditures to provide service of an appropriate quality going forward. The relevant process and expenditures are described in Witness Garavaglia's testimony. However, as a check on these projections, I have done my own analysis of DP&L's past capital expenditures and compared them to those of a sample of peer electric T&D companies. To make my comparison, I examine the cumulative amount invested to date less accumulated depreciation, or Net Property Plant and Equipment ("Net PP&E"). This measure reflects the long-lived nature of grid investments

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<sup>89</sup> Garavaglia Testimony, at 3-4.



and the total amount invested over time, controlling for age by subtracting accumulated depreciation. I then divide Net PP&E for each utility by its load in MWH to control for the fact that size could account for differences in gross investment.

**Q. And what were the results of this comparison?**

A. As shown in Exhibit RJM-25, DP&L's Net PP&E per MWH was \$98, which is approximately 48 percent below the peer average (\$187) and 38 percent below the peer median. Moreover, it is below both Cleveland Electric (\$111) and Ohio Edison (\$123), but above Toledo Edison (\$64).<sup>90</sup> All else equal, these lower historical levels of capital expenditures are consistent with Witness Garavaglia's description of DP&L's network "aging" of DP&L's grid and, eventually, lower relative safety and reliability results. Indeed, as described further below, measures of DP&L's reliability have worsened in recent years. Witness Garavaglia's testimony contains additional information about DP&L's aging infrastructure.<sup>91</sup> These data suggest that DP&L has significantly underinvested in its grid and needs to ramp up its capital expenditures in order to maintain or improve its safety and reliability, and to invest in grid modernization.

**Q. How do DP&L's capital expenditures affect the reliability of electricity service that it provides to its customers?**

A. Section V provides a regression analysis that quantifies the effect that a reduction in capital expenditures has on the frequency and duration of service outages. My results show that lower capital expenditures tend to reduce reliability, all else equal. For example, as described further below, a 50 percent reduction in capital expenditures increases the

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<sup>90</sup> Toledo Edison appears to be an outlier. In fact, it is the minimum value in my sample.

<sup>91</sup> Garavaglia Testimony, at 3-4.

1 expected frequency of outages by about 10 percent and the expected duration of outages  
2 by about 15 to 20 percent.

3 **C. Hypothetical MRO**

4 **Q. How do rates and charges to customers compare between the hypothetical MRO and**  
5 **ESP I?**

6 A. The ESP includes the Energy Efficiency Rider, Investment Infrastructure Rider, Legacy  
7 Generation Rider, Storm Rider, and Tax Savings Cost Rider. These charges largely reflect  
8 either pass-through of various costs to customers or the recovery of costs of distribution  
9 investment that would presumably also be present in an MRO (through the MRO itself, a  
10 distribution rate case, or other proceeding).

11 As noted above, the primary quantifiable difference in the two plans is that ESP I includes  
12 an RSC that averages \$79 million annually, whereas the MRO includes an FIC in the range  
13 of [REDACTED] annually. Another difference is that DP&L can collect  
14 about [REDACTED] from customers related to recovery of generation environmental  
15 expenses under an MRO but not an ESP.

16 **Q. How do you assess “financial integrity”?**

17 A. I assess financial integrity as part of a broader assessment of the financial health of the  
18 Company. I use the term “financial condition” to refer to an assessment of the general  
19 financial health based on a variety of financial variables ranging from income statement  
20 items such as revenue growth, profitability, and cash flow, to balance sheet items such as  
21 the amount of liquid assets, amount and types of liabilities, debt-to-capital ratios and other  
22 financial ratios.

1 I use the term “financial integrity” to refer more specifically to a credit-risk assessment.  
2 Thus, one cannot assess the financial integrity of an entity or enterprise without also  
3 analyzing its financial condition. For example, as I use the term, poor financial  
4 performance (e.g., low profitability) is an indicator of poor financial condition, which will  
5 reduce financial integrity, all else equal. Credit ratings are a good summary measure of a  
6 company’s overall financial integrity as determined by a third party. Over time, credit  
7 ratings on average have been shown to be predictors of financial distress in that default  
8 rates increase systematically as debt ratings fall. In addition, credit ratings are used by  
9 investors to make investment decisions.

10 **1. MRO Without an FIC**

11 **Q. Please describe the projected financial condition and integrity of DP&L under the**  
12 **hypothetical MRO without an FIC.**

13 **A.** Under an MRO without an FIC, DP&L would face serious and imminent financial distress.  
14 In order to preserve its capital, I assume that DP&L would not pay any dividends to DPL  
15 under this scenario and is able to refinance \$140 million of debt in 2020.

16 In 2020, DP&L would generate approximately [REDACTED] in operating cash flow, which  
17 is well below projected capital expenditures of [REDACTED] in that year, as well as DP&L’s  
18 capital expenditures of \$167 million in 2019. Despite this shortfall and the financial distress  
19 that DP&L and DPL would be experiencing, this scenario still assumes that AES would  
20 contribute \$150 million in equity. Even with this equity contribution, the [REDACTED]  
21 operating cash flow would fall well short of the [REDACTED] of capital expenditures. In  
22 2021, operating cash flow of [REDACTED] would fall well short of the [REDACTED] capital

expenditures. The problems continue in the following years, as operating cash flow remains significantly below capital expenditures necessary to maintain safe and reliable service and implement grid modernization.

Without equity infusions, DP&L would need to resort to its revolver to bridge the cash shortfall. However, even assuming AES would still inject the first \$150 million of equity in 2020 (which would no longer be economic) DP&L would need to increase its borrowing on the revolver to [REDACTED].<sup>92</sup> DP&L would face rising leverage. *Debt / Capital* would reach [REDACTED] percent by 2023, well above the [REDACTED].

The model-based indicated credit ratings fall from the current Baa2 to [REDACTED], below investment grade, for the four-year projection period.<sup>93</sup> As shown in Figure 1 below, the yield on non-investment grade is significantly higher than for investment grade debt. This scenario demonstrates a clear financial emergency for DP&L.

**Q. Please describe the projected financial condition and integrity of DPL under the MRO without an FIC.**

A. DPL would face even greater financial distress than DP&L. DPL would [REDACTED] in each of the four years. At the same time, DPL would need to refinance \$380 million in 2021 and extend the maturity of its revolver, which currently ends in June 2023. [REDACTED]

<sup>92</sup> Exhibit RJM-5A; Exhibit RJM-7C.

<sup>93</sup> These ratings likely are overstated because the AES equity infusion in 2020 would be jeopardized under this scenario, as would DP&L's ability to overdraw its revolver by such a large amount.

1 [REDACTED]. Even with these  
2 unrealistic assumptions, [REDACTED] and  
3 would reach [REDACTED] 023.

4 DPL would have *Cash Flow / Debt* in the range of [REDACTED], far below the  
5 eight percent that Moody's notes is a threshold for a rating downgrade. The model indicated  
6 credit ratings is [REDACTED].<sup>94</sup> As ratings fall to this level, yields and default rates rise dramatically  
7 (see Figure 1 below).<sup>95</sup>

8 **Q. What are the ramifications of DPL violating its debt covenants?**

9 A. Violation of debt covenants typically constitutes an event of default that can cause the debt  
10 to be immediately due and payable. [REDACTED]

13 **Q. If DP&L were to file an MRO, would it be appropriate for DP&L to request an FIC?**

14 A. Yes. I understand that under an MRO, a utility is able to seek an FIC if it faces "any  
15 emergency that threatens [its] financial integrity."<sup>96</sup> Absent an FIC, the projections show  
16 that DP&L would not have sufficient cash flow to maintain safe and reliable service,  
17 compounded by the fact that [REDACTED]

<sup>94</sup> These ratings likely are overstated because the AES equity infusion would be jeopardized under this scenario, as would DPL's ability refinance debt on reasonable terms. In addition, they [REDACTED].

<sup>95</sup> Moody's Investors Service "Annual Default Study: Defaults Will Edge Higher in 2020," January 30, 2020. The term "default," means a failure to service debt according to its terms.

<sup>96</sup> R.C. 4928.142(D)(4).

DP&L.<sup>97</sup> In my opinion, the precarious position of DP&L and DPL under a hypothetical MRO with no FIC clearly would constitute a financial emergency that would merit a financial integrity charge.

## 2. MRO With an FIC

**Q. What level of FIC is appropriate in your view?**

A. Selecting an FIC requires balancing tradeoffs of the cost to customers against the benefits of a more stable electric utility. In light of this balancing, I focus on a reasonable range for the FIC rather than advancing a single point estimate. As I discuss below, I believe an annual FIC of [REDACTED] is reasonable.

**Q. What is your basis for calculating the bottom of the FIC range of [REDACTED]?**

A. Under the MRO, AES will make only one equity contribution of \$150 million versus \$300 million under ESP I.<sup>98</sup> As a result, the amount of cash flowing in to DP&L will be reduced by that amount. Therefore, to make ESP I and the hypothetical MRO equivalent on a cash inflow basis, I have calculated the FIC so that it is sufficient to make up for the loss of the \$150 million equity (with an adjustment for taxes) and the \$79 million RSC. As shown in Exhibit RJM-8A, this results in an annual FIC under the MRO of [REDACTED], which can be expected to produce a level of financial condition and integrity for DP&L that is similar to ESP I with an RSC.

<sup>97</sup> Garavaglia Testimony, at 17-21.

<sup>98</sup> Garavaglia Testimony, at 26-27.



1 Q. What is your basis for calculating the top of the FIC range of \$162 million?

2 A. Alternatively, the FIC can be set by determining the amount that will be necessary to cover  
3 planned capital expenditures, debt service at DP&L and interest expense at DPL. As  
4 described below, such an amount will allow DP&L to achieve a [REDACTED]  
5 [REDACTED]  
6 [REDACTED].<sup>99</sup> The fact that the management of the peer companies and their  
7 regulators implement rate and other policies that result in ratings at this level suggest that  
8 such ratings have economic value through better access to capital markets and lower cost  
9 of debt capital.

10 As shown in Exhibit RJM-8B, I determine the FIC as follows, using the Company  
11 projections for 2020 through 2023 under ESP I. First, I estimate average annual capital  
12 expenditures of [REDACTED], calculated as the sum of investment in maintaining existing  
13 transmission and distribution [REDACTED] plus the new investment in infrastructure  
14 [REDACTED] and transmission [REDACTED] attributable to equity [REDACTED].  
15 Second, I add [REDACTED] of average interest expense for DPL. This results in an average  
16 use of cash of [REDACTED]. Third, I subtract the [REDACTED] average operating cash  
17 flow from the [REDACTED] use of cash to determine an after-tax cash shortfall of [REDACTED]  
18 [REDACTED].<sup>100</sup> Finally, I gross this after-tax amount up for taxes to obtain a pre-tax FIC of [REDACTED]  
19 [REDACTED].

<sup>99</sup> While I project that DP&L's rating would [REDACTED], the strong cash flows and other financial metrics created by an FIC of [REDACTED] would leave the utility very close to being able to [REDACTED]. Indeed, it is reasonable to assume that the credit rating agencies would view approval of a [REDACTED] FIC as a favorable regulatory development, and raise its qualitative sub-factor ratings of DP&L's regulatory environment. In that case, DP&L's credit rating would increase to [REDACTED].

<sup>100</sup> [REDACTED]  
[REDACTED]

This approach reflects a calibration of the FIC to the after-tax cash flow needed to maintain the capital expenditures the Company plans to make in order to be able to deliver safe and reliable electricity service to its customers, and to invest in grid modernization.

**Q. Please describe the projected financial condition and integrity of DP&L under the hypothetical MRO.**

A. An FIC in the range of [REDACTED] annually would position DP&L with generally sound financial condition and integrity. As shown in Exhibit RJM-9A and Exhibit RJM-10A, the [REDACTED] annual FIC would improve DP&L's financial condition and the indicated credit ratings for DP&L would rise from [REDACTED] currently to [REDACTED] and [REDACTED]. As discussed below, a [REDACTED] rating would place DP&L closer to the middle of electric T&D companies. DP&L would need to draw on its revolver in order to meet its planned capital expenditures, but with [REDACTED] it would preserve capacity on its revolver. DP&L would have a capital structure close to the targeted [REDACTED] debt capital structure ([REDACTED] percent in [REDACTED]).

The [REDACTED] FIC would position DP&L on an even stronger footing financially. Its credit rating in 2020 [REDACTED], and it would draw less heavily on the revolver. DP&L would have surplus cash of about [REDACTED] by [REDACTED], which could further reduce leverage at DP&L or DPL. Going forward, DP&L would be [REDACTED], which is more consistent with the median rating of its peer group.<sup>101</sup>

<sup>101</sup> As noted above, if DP&L's regulatory environment sub-factors were [REDACTED] it would produce a rating of [REDACTED]. In addition, [REDACTED]



1 Q. Please describe the projected financial condition and integrity of DPL under a  
2 hypothetical MRO.

3 A. An MRO with an FIC in the range of [REDACTED] annually and a \$150  
4 million equity infusion would abate any emergency and allow DPL to maintain its financial  
5 condition and integrity. With a [REDACTED] FIC, as shown in Exhibit RJM-9B and  
6 Exhibit RJM-10B, the indicated credit ratings for DPL would [REDACTED]  
7 [REDACTED]. As discussed below, DPL would remain on the  
8 low end of utility holding companies. DPL would achieve have *Cash Flow / Debt* in the  
9 range of [REDACTED] percent during most of the projection, above the 8.0% threshold that  
10 Moody's focuses on.

11 [REDACTED]

12 [REDACTED]. In that case, [REDACTED]

13 [REDACTED].

14 In the same year, DPL would need to refinance \$380 million of debt. During the projections  
15 period, DPL reduces its reliance on the revolver, [REDACTED].

16 With the [REDACTED] FIC, DPL would move to a stronger financial position. I project that  
17 its credit rating would be [REDACTED]

18 [REDACTED].<sup>102</sup> DPL's FFO-adjusted leverage would improve  
19 to an average of [REDACTED] threshold that Fitch identified as a catalyst for an  
20 upgrade.<sup>103</sup> DPL would [REDACTED], deleverage throughout the  
21 period, and reduce its reliance on the revolver.

<sup>102</sup> As noted above, Moody's might further increase its regulatory environment sub-factor ratings and the Company could [REDACTED]t, thereby improving its credit metrics.

<sup>103</sup> Exhibit RJM-9B; Fitch December 2019 Credit Opinion, at 3.

Q. Does an FIC in the range of [REDACTED] serve the purpose of addressing an emergency that threatens DP&L's financial integrity?

A. Yes. In comparison to the MRO with no FIC, DP&L and DPL move from [REDACTED]; thus, abating the emergency that both would face in the event of any lower FIC.

**D. ESP I with RSC**

Q. Please provide additional detail regarding the DP&L rate changes that have taken place due to the reversion to ESP I.

A. DP&L reverted to ESP I (Docket 08-1094-EL-SSO) in late 2019. Under ESP I, DP&L collects a RSC. In addition to the RSC, ESP I also provided for an IIR. Table 5 summarizes the RSC and IIR during the remaining forecasted term of ESP I.

**TABLE 5  
RSC AND IIR UNDER ESP I**

(\$ Millions)	2020	2021	2022	2023	Total
RSC	\$76.6	\$78.8	\$79.0	\$79.7	\$314.1
IIR	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Q. Aside from these changes to the rates, are there any other important components of ESP I?

A. Yes. As noted above, under ESP I, DP&L plans to raise [REDACTED] in new capital, [REDACTED]. This additional major influx of funds would enhance DP&L's and DPL's liquidity and financial flexibility, and provide additional resources to fund needed capital expenditures.

**Q. Please describe your analysis of the financial condition and integrity of DP&L under ESP I with the RSC.**

A. Viewing DP&L in isolation, ESP I with the RSC and, in particular, a \$300 million equity infusion, would position DP&L with manageable financial condition and integrity. Over the four year projection period, operating cash flows [REDACTED], [REDACTED] [REDACTED], and new equity (\$300 million), would provide [REDACTED], which would closely match the [REDACTED] used for capital expenditures [REDACTED] and dividends to DPL [REDACTED].<sup>104</sup>

As shown in Exhibit RJM-16A, the indicated credit ratings for DP&L based on my projections would [REDACTED] [REDACTED], and would preserve flexibility by drawing on its revolver only on a limited basis after 2022. DP&L also would have a capital structure that is close to the targeted [REDACTED] debt to total capital by [REDACTED].

However, the financial condition and integrity of DP&L also depends on the financial condition and integrity of DPL. As discussed next, DPL is forecasted to [REDACTED] [REDACTED] [REDACTED] [REDACTED].<sup>105</sup>

In sum, while DP&L's credit ratings would [REDACTED] [REDACTED], as noted below (Figure 2)), and would be subject

<sup>104</sup> Exhibit RJM-15A (reporting annual averages).

<sup>105</sup> Garavaglia Testimony, at 17-21.

1 to additional risk related to DPL's situation. These [REDACTED]  
2 are less than optimal because, based on the peer data, an [REDACTED] rating reflects an appropriate  
3 balance between the cost of maintaining the higher rating and the benefit of better access  
4 to capital markets and a lower cost of debt capital. DP&L's [REDACTED] debt rating  
5 under this scenario is indicative of a somewhat fragile state in which it would be more  
6 vulnerable than average in responding to shocks, such as the recent Covid-19 crisis or  
7 severe weather events.

8 **Q. Please describe the projected financial condition and integrity of DPL under ESP I**  
9 **with the RSC.**

10 A. Due in significant part to the \$300 million equity infusion from AES, ESP I with the RSC  
11 would position DPL to [REDACTED]  
12 (see Exhibit RJM-16B), which would place DPL [REDACTED]  
13 [REDACTED]. DPL would [REDACTED] that Moody's  
14 focuses on, and until [REDACTED] would [REDACTED] FFO-adjusted leverage threshold  
15 that Fitch identified as a catalyst for a downgrade.<sup>106</sup> [REDACTED]

16 [REDACTED]  
17 [REDACTED]  
18 [REDACTED]  
19 [REDACTED]  
20 [REDACTED]. However, DPL would remain in a somewhat risky position, which would increase  
21 DP&L's risk as well.

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<sup>106</sup> Exhibit RJM-15B; Fitch December 2019 Credit Opinion, at 3.

Given these circumstances, I assume that DPL will be able to refinance \$380 million of debt in 2021, and that DP&L can refinance \$140 million of debt in 2020 and [REDACTED].

**D. Hypothetical ESP I without the RSC**

**Q. Did you also examine ESP I without the RSC?**

A. Yes. In order to provide a robust analysis of the financial condition of DP&L, I also examined ESP I without the RSC. I used the same assumptions as ESP I with the RSC, except I adopted the financing assumptions from the MRO scenario with no FIC. Specifically, I assume that AES would not make the second \$150 million equity infusion in 2021 and DP&L [REDACTED].<sup>107</sup> I also assume Moody's would [REDACTED] for both entities, [REDACTED].<sup>108</sup>

While it is unrealistic, as a modeling convenience I assume that DP&L and DPL would be able to refinance their debt as before, and on the same terms.<sup>109</sup> Under these assumptions, DP&L has [REDACTED] less in cash to use to fund capex, debt service, and other operating needs.<sup>110</sup> I assume that DP&L eliminates dividend payments to DPL in this scenario, as compared to an average of [REDACTED] annually under the ESP with the RSC.

<sup>107</sup> I understand that AES might also not make the first \$150 million equity investment if there is no RSC, but I have left that initial investment in my model.

<sup>108</sup> Table 3.

<sup>109</sup> This includes extending the maturity of the DPL revolver, currently June 2023, until 2024 or later.

<sup>110</sup> [REDACTED] average annual capital expenditures less [REDACTED] average annual operating cash flow, multiplied by four.

Based on these assumptions, I project that DP&L immediately would be [REDACTED], which would greatly increase its cost of debt.<sup>111</sup> Further, I project that it would [REDACTED] through the end of the projection period.

**Q. Please describe the projected financial condition of DP&L under ESP I without the RSC.**

A. This scenario is very similar to the MRO with no FIC. As in that scenario, DP&L would be in a dire financial position absent the RSC.<sup>112</sup> In order to bridge the [REDACTED] gap in financing, DP&L would [REDACTED]. By [REDACTED], the DP&L revolver balance would be [REDACTED], [REDACTED]. DP&L would have a capital structure that is far more levered than the targeted [REDACTED] debt capital structure, reaching [REDACTED] debt by [REDACTED].

The financial condition and integrity of DP&L in this scenario would also suffer further due to the strained financial position of DPL, which is [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED].

<sup>111</sup> This rating is likely to be overstated for several reasons, including my assumption that AES would still make the initial \$150 million equity investment and that DP&L could refinance its existing debt at reasonable rates.

<sup>112</sup> Exhibit RJM-18A and Exhibit RJM-20A.

**Q. Please describe the projected financial condition of DPL under ESP I without the RSC.**

A. The ESP without the RSC would put DPL in a precarious financial position. As shown in Exhibit RJM-18B, DPL [REDACTED]

[REDACTED]<sup>113</sup>

DPL would [REDACTED]

**Q. How would DP&L's customers be affected by DP&L's and DPL's financial distress?**

A. DP&L's customers would face a number of negative consequences in this hypothetical scenario where I project that [REDACTED]

<sup>113</sup> Exhibit RJM-18B; Fitch December 2019 Credit Opinion, at 3.

1 In order to address this financial emergency, based on my analysis of capital expenditures  
2 by financially distressed companies, the following would likely take place:

- 3 • DP&L likely would reduce or delay capital expenditures. Company Witness  
4 Garavaglia explains the types of cuts to operating expenses and capital investments that  
5 DP&L would need to make.<sup>114</sup> All else equal, this reduction would result in a less  
6 effective and less reliable infrastructure for delivering electric service, which would  
7 harm customers and the state of Ohio more generally.
- 8 • DP&L would have limited or no ability to finance its proposed smart grid plan,  
9 preventing its customers from benefiting from new technology like customers in other  
10 parts of Ohio and in other states. Also, as I discuss further below, without the smart  
11 grid plan, the long term financial viability of DP&L and DPL would be threatened. In  
12 that case, both entities would experience financial distress that would have a longer  
13 term negative impact on DP&L's customers.
- 14 • Management and regulators' attention and effort would be diverted from their normal  
15 duties aimed at fulfilling customers' needs to instead deal with the financial distress.  
16 This diversion also would cause harm to customers through reduced service quality.
- 17 • The increased cost of debt at DP&L would increase electric rates as the increased cost  
18 is passed through to customers.
- 19 • DP&L likely would invest less in service operations, which would reduce the quality  
20 of customer service and customer satisfaction.

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<sup>114</sup> Garavaglia Testimony, at 15-16.



**Q. Is it your opinion that the RSC is, on a net basis, beneficial to DP&L's customers?**

A. Yes. While the RSC will increase rates temporarily by a total of \$314 million over four years relative to a hypothetical ESP I without the RSC, my projections show that the \$79 million RSC, together with the \$300 million in new equity from AES and [REDACTED] will provide sufficient funds for DP&L and DPL to meet their coming financial challenges, including increased capital expenditures and the proposed grid modernization investment, while maintaining a stable investment grade credit rating of [REDACTED] or better at DP&L and a [REDACTED] at DPL. While there will be certain challenges in the short run, [REDACTED], they appear to be manageable in this scenario with the RSC.<sup>115</sup>

Under ESP I with the \$79 million RSC, DP&L's customers will derive substantial benefits from having a financially sounder utility with the resources to invest adequately in its grid. In stark contrast, without the RSC, DP&L and DPL will both suffer financial distress, and DPL will suffer extreme distress. Under these circumstances, the equity infusion from AES and [REDACTED] would be in jeopardy, as would DP&L's ability to make needed investments in its grid. In that case, not only will customers lose the benefit of having a financially strong utility, they will incur the substantial costs of having a utility and its holding company in financial distress, including distracted management and reduced investment in infrastructure, thus increasing the likelihood that DP&L will be unable to provide safe and reliable service to its customers.

---

<sup>115</sup> It is important to note that these projected ratings, including DP&L's [REDACTED], still will be low relative to DP&L and DPL's peers. All else equal, this fact suggests that a higher RSC would be beneficial to DP&L's customers because it would lower DP&L's debt cost of capital and increase its access to new debt financing, as I have testified in the past.

Furthermore, under an ESP without the proposed \$79 million RSC, it will be difficult or impossible for DP&L to finance and complete its proposed smart grid plan. The potential customer benefits from such investments, including investments in “smart grid” technology, have been well-described and documented. Based on my analysis of publicly available data, utilities have invested over \$18 billion in grid modernization projects between 2010 and 2013<sup>116</sup> and are projected to have invested over \$32 billion over the 10-year period between 2008 and 2017,<sup>117</sup> including \$111 million by Ohio utilities.<sup>118</sup> This level of investment and the widespread implementation of such projects is a testament to the value they provide to customers. Witness Garavaglia discusses the age of DP&L’s system and the need for increased capital investment in the utility.

**Q. Does DP&L face any additional risks under either an ESP or MRO that can have a financial impact?**

A. Yes. DP&L bears the burden of acting as the “Provider of Last Resort” or “POLR” in its service territory. The costs of this burden, which are not recovered through ordinary rates, arise because DP&L has a duty to serve all of its customers. Thus, for customers who obtain their power through the SSO, DP&L is obligated to stand in if one of the contracted SSO suppliers fails to honor its contract. This exposes DP&L to the risk of having to procure load at market rates that are far above the amount DP&L would receive from the customer. For example, a surge in market prices of power could bankrupt a provider that procures power at spot rates but resells the power to its customers at fixed rates. Other sources of

<sup>116</sup> U.S. Department of Energy, 2014 Smart Grid System Report, August 2014, at 2.

<sup>117</sup> Campbell, Richard J., “The Smart Grid: Status and Outlook,” Congressional Research Service, April 2018, at 7.

<sup>118</sup> “Rejected from Stimulus Funding, Dayton Power & Light Says No to Smart Meters,” Smart Grid Legal News, February 18, 2011, available at <<https://www.smartgridlegalnews.com/cost-recovery/stepping-aside-on-smart-meter-deployment-dayton-power-light/>>. See also, EEI Summary of State Regulatory Smart Grid Decisions, Edison Electric Institute, August 2011, available at <<http://smartgrid.eei.org/Toolkit/2011-12-27-eei-state%20regulation-chart.pdf>>.

POLR risk for DP&L include extreme winter events, such as a “polar vortex,” that knock out SSO suppliers, as well as “black swan” events such as the current Covid-19 crisis. Indeed, the PUCO recently extended its Winter Reconnect Order that places obligations on DP&L to continue to provide service to customers who are not current on their bills. Though difficult to quantify, there is clear value in having a financially stable provider of last resort. To be able to act as a POLR, DP&L needs to have enough financial and operational stability to step in when needed. The RSC in the ESP or an FIC in an MRO would act as an important source of funds that enables DP&L to serve in this capacity.

**V. THE RELATIONSHIP BETWEEN FINANCIAL CONDITION**  
**AND INTEGRITY, CAPITAL EXPENDITURES, AND**  
**RELIABILITY**

**Q. Please summarize the main conclusions you draw in this section.**

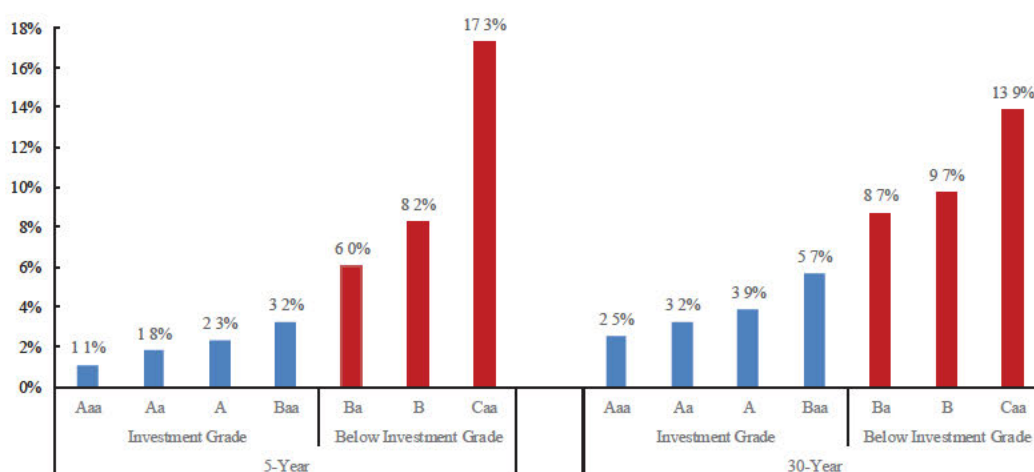
A. This section demonstrates that electric T&D utilities who make larger capital investments will tend to have better reliability scores. Furthermore, utilities with better financial integrity (as measured by credit ratings) will tend to have a lower cost of debt and will also tend to make larger capital investments.

**Q. Is maintaining an investment grade credit rating a reasonable component of financial integrity for a T&D utility like DP&L?**

A. Yes. As discussed below, the financial economics literature recognizes several benefits of an investment grade credit rating. Of course, a higher rating is associated with a lower

default rate.<sup>119</sup> Many institutions, including banks, insurance companies, and broker-dealers, are either prohibited from or limited in their ability to own bonds that are rated below investment grade.<sup>120</sup> Consistent with their greater safety and the greater demand due to restrictions on institutional investors, investment grade bonds have lower yields than speculative grade bonds, as reflected in Figure 1.

**FIGURE 1  
YIELD BY CREDIT RATING  
UTILITY SECTOR**



**Notes & Sources:**

Annual (semi-annually compounded) yields from S&P Capital IQ, as of March 30, 2020. Ratings expressed on Moody's scale, grouped by primary rating (e.g. Aa includes Aa1, Aa2, and Aa3). Utilities Sector includes firms with GICS codes for Electric, Gas, and Water Utilities, and Independent Power & Renewable Energy Producers. See "GICS: Global Industry Classification Standard," S&P Global, 2018, at 45, available at [https://www.spglobal.com/marketintelligence/en/documents/112727-gics-mapbook\\_2018\\_v3\\_letter\\_digitalspreads.pdf](https://www.spglobal.com/marketintelligence/en/documents/112727-gics-mapbook_2018_v3_letter_digitalspreads.pdf).

Investment grade ratings based off of "Moody's Rating Scale and Definitions," available at [https://www.moodys.com/sites/products/productattachments/ap075378\\_1\\_1408\\_ki.pdf](https://www.moodys.com/sites/products/productattachments/ap075378_1_1408_ki.pdf).

There is evidence that firms adjust their behavior to target credit ratings, especially near the cutoff for investment grade.<sup>121</sup> For example, firms near the investment grade boundary

<sup>119</sup> Moody's, "Annual Default Study: Corporate Default and Recovery Rates, 1920-2014," March 4, 2015.

<sup>120</sup> See, e.g., White, L., "The Credit Rating Agencies," *Journal of Economic Perspectives* 24, 2010, at 213-14.

<sup>121</sup> Kisgen, D., "Do Firms Target Credit Ratings or Capital Structure Levels?," *Journal of Financial and Quantitative Analysis* 44, 2009, at 1323, 1342; Kisgen, D., "The Influence of Credit Ratings on Corporate Capital Structure

(Baa) have lower leverage than otherwise would be expected in order to gain an investment grade credit rating.<sup>122</sup> This evidence shows that there are costs to maintaining a higher rating (e.g., a potentially higher cost capital structure) that are outweighed by the benefits.

Few electric transmission and distribution utilities or their parent corporations have credit ratings below investment grade. Figure 2 shows the frequency of various Moody's credit ratings for electric transmission and distribution utility companies, including DP&L. Of the 29 companies rated as of December 2018, only two have ratings that are lower than DP&L. The most common rating for these firms is A3, which is two notches above DP&L's current Moody's rating of Baa2 (and DP&L's ratings from Fitch and S&P are even lower).

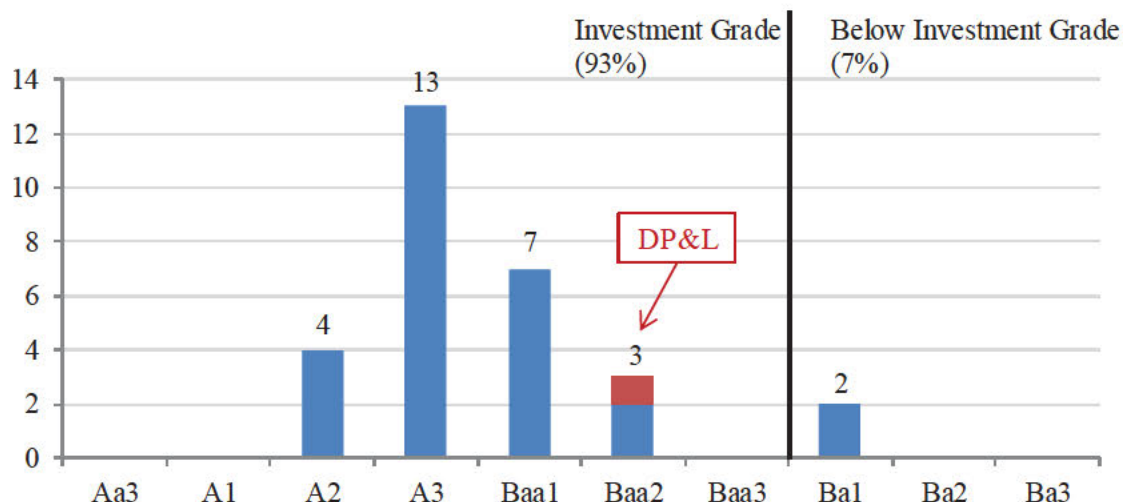
Figure 3 shows similar results for a sample of utility holding companies, including DPL. Of the 48 rated companies, DPL is one of only two that are rated below investment grade. Most utility holding companies have a rating of Baa2 or higher, at least two notches above DPL's current rating.

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Decisions," *Journal of Applied Corporate Finance* 19, 2007, at 65; Graham, J. and C. Harvey, "The Theory and Practice of Corporate Finance: Evidence from the Field," *Journal of Financial Economics* 60, 2001, at 210-11.

<sup>122</sup> Kisgen, D. "Credit Ratings and Capital Structure," *Journal of Finance* 61, 2006, at 1035, 1062-1063.

**FIGURE 2**  
**DISTRIBUTION OF MOODY'S CREDIT RATINGS**  
**ELECTRIC TRANSMISSION AND DISTRIBUTION COMPANIES**



Notes & Sources:

Moody's Credit ratings and transmission/distribution determination from S&P Global Market Intelligence. If

Moody's long-term issuer ratings were not available, Moody's senior unsecured ratings were used.

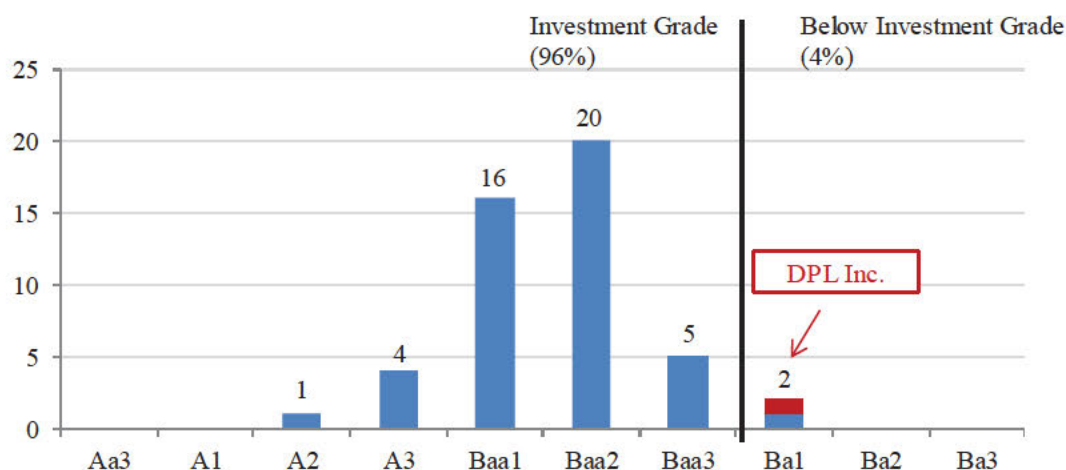
Utility Companies chosen based off of Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

Investment grade ratings based off of "Moody's Rating Scale and Definitions," available at

[https://www.moody's.com/sites/products/productattachments/ap075378\\_1\\_1408\\_ki.pdf](https://www.moody's.com/sites/products/productattachments/ap075378_1_1408_ki.pdf).



**FIGURE 3**  
**DISTRIBUTION OF MOODY'S CREDIT RATINGS**  
**UTILITY HOLDING COMPANIES**



Notes & Sources:

Moody's Credit ratings from S&P Global Market Intelligence. If Moody's long-term issuer ratings were not available, Moody's senior unsecured ratings were used.

Utility Holding Companies chosen based off of Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

Where available, immediate parent company of U.S. Investor-Owned Utility was used.

Investment grade ratings based off of "Moody's Rating Scale and Definitions," available at [https://www.moody.com/sites/products/productattachments/ap075378\\_1\\_1408\\_ki.pdf](https://www.moody.com/sites/products/productattachments/ap075378_1_1408_ki.pdf).

This evidence shows that utilities and their parents have a target capital structure and general financial strength that balances the costs and benefits of debt and that generally results in a midrange investment grade rating.

**Q. Is the level of a utility's financial condition and integrity associated with the level of its capital expenditures?**

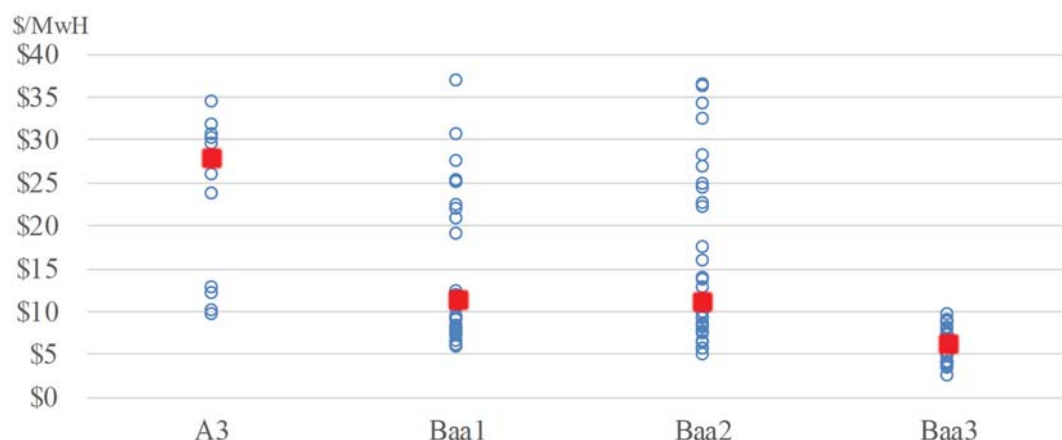
A. Yes. The data on credit ratings reviewed above show that transmission and distribution utilities, and their regulators, manage the financial affairs of the companies to generate a midrange investment grade credit rating. Companies with credit ratings that are "too high" may have an incentive on the margin to overinvest, while companies with credit ratings that are "too low" are typically closer to being in some degree of financial distress and may

1 be unable to make needed investments. This reduced investment is the result of a higher  
2 cost of capital, as well as liquidity effects resulting from difficult choices between  
3 investments in needed infrastructure and more immediate demands on its cash, such as  
4 servicing debt. All else equal, economic theory predicts that reductions or delays in needed  
5 infrastructure investments will reduce the quality of the service provided to customers,  
6 potentially jeopardizing a utility's ability to provide safe and reliable service. In this section  
7 I analyze capital expenditures by T&D utilities and find empirical support for this  
8 prediction.

9 To investigate how capital expenditures ("capex") are associated with financial health as  
10 measured by credit ratings, I calculated capex per MWh and per retail electric customer for  
11 these T&D companies and DP&L. I focused on these companies rather than integrated  
12 utilities or utility holding companies in order to avoid confounding the results with capex  
13 on generation or other assets. The figures below show that there is a clear pattern, in which  
14 lower-rated utilities generally have lower capital expenditures, controlling for size.



**FIGURE 4**  
**CAPEX PER TOTAL RETAIL ELECTRIC VOLUME (MWH), 2012-2018**  
**ELECTRIC TRANSMISSION AND DISTRIBUTION COMPANIES**



Notes & Sources:

Yearly CapEx divided by yearly Total Sales of Electricity Volume (MwH) for 2012-2018. Median values in red. CapEx and Total Sales of Electricity Volume (MwH) from Standard and Poor's Global Market Intelligence. Credit Ratings from Moody's via Standard and Poor's Global Market Intelligence, from Q4 of each year. Includes Electric Transmission and Distribution Companies for which CapEx, Total Sales of Electricity Volume (MwH), and Credit Ratings were available, excluding companies with natural gas distribution. Companies chosen based on Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

**FIGURE 5**  
**CAPEX PER TOTAL RETAIL ELECTRIC CUSTOMERS, 2012-2018**  
**ELECTRIC TRANSMISSION AND DISTRIBUTION COMPANIES**



Notes & Sources:

Yearly CapEx divided by yearly Total Retail Electric Customers for 2012-2018. Median values in red.

CapEx and Total Retail Electric Customers from Standard and Poor's Global Market Intelligence.

Credit Ratings from Moody's via Standard and Poor's Global Market Intelligence, from Q4 of each year.

Includes Electric Transmission and Distribution Companies for which CapEx, Total Retail Electric Customers, and Credit Ratings were available, excluding companies with natural gas distribution.

Companies chosen based on Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

1    **Q.    What do you take away from the above analysis?**

2    A.    The data above show that a higher debt rating is associated with more intensive capital  
3    expenditures on necessary infrastructure. Economic research shows that companies target  
4    particular credit ratings and arrange their affairs to achieve those targets. Such  
5    arrangements have economic costs. Therefore, the fact that transmission and distribution  
6    utilities, their holding companies, and their regulators choose to maintain midrange  
7    investment grade credit ratings shows that the benefits of maintaining those ratings  
8    outweigh the costs of improving credit ratings. One of the benefits of a higher credit rating  
9    is a lower cost of debt, and likely a lower cost of equity as well. Under utility regulation, a

lower cost of debt and equity capital provides a direct benefit to customers via lower rates, because the lower cost is passed through to customers. This analysis indicates that customers also indirectly benefit from a financially strong utility in the form of more timely and robust investments in utility infrastructure.

**Q. Please explain the standard measures used to measure a utility's reliability and how they are related to DP&L's ability to provide safe and reliable electric service.**

A. SAIDI stands for System Average Interruption Duration Index and measures the length of power outage experienced by a typical utility customer over a given period of time. It is calculated by multiplying the length of each outage by the number of customers affected, adding up the resulting numbers for all outages over a given time period, and dividing by the total number of the utility's customers. Therefore, electricity providers that have low SAIDI scores typically have shorter power outages than those with high SAIDI scores. SAIFI stands for System Average Interruption Frequency Index and measures how often a power outage is experienced by an average utility customer over a given period of time. It is calculated by dividing the number of customers affected in each outage by the utility's total number of customers, and then adding up this ratio for all outages. Therefore, electricity providers that have low SAIFI measures typically have less frequent power outages than those with high SAIFI measures. Lower values of these metrics thus translate to more reliable electricity service via shorter (SAIDI) and less frequent (SAIFI) interruptions of power supply, and all of the safety and economic benefits that entails.

**Q. Have you made any attempt to quantify the impact of firm capital expenditures on safety and reliability as measured by SAIDI and SAIFI?**

A. Yes. I have used a statistical technique called regression analysis that allows one to measure the impact of one or more “independent” variables on the variable of interest (the “dependent” variable). This analysis is described in detail in the Technical Appendix to my testimony.

**Q. What did you find?**

A. I found that, all else equal, electricity firms with higher levels of capital expenditure per megawatt hour tend to have more favorable (lower) SAIDI and SAIFI levels. For example, a ten percent reduction in capital expenditures per megawatt hour tends to increase the frequency of outage (SAIFI) by about two percent and the duration of outage (SAIDI) by about three to five percent.<sup>123</sup>

**Q. How does DP&L compare to its peers in terms of capital expenditures and the reliability measures?**

A. As Exhibit RJM-21 demonstrates, DP&L’s average capital expenditures per retail megawatt hour over the period 2016-2018 (\$10) were low when compared to the other firms in the sample: in fact, it was in the lower quartile of my dataset. Perhaps more importantly, its Net PP&E per MWH, which measures the net accumulated investment over time adjusted for age, is significantly lower than the peer average. As shown in Exhibit RJM-25, DP&L’s Net PP&E per MWH is \$97.90 versus a peer median of \$157.35, as well as \$111.21 for Cleveland Electric and \$122.60 for Ohio Edison. Despite their

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<sup>123</sup> Exhibit RJM-27.

relatively low historical investment, however, DP&L's SAIDI and SAIFI measures have been better than average. In sum, as Exhibit RJM-22 and Exhibit RJM-23 demonstrate, so far, DP&L has been able to achieve relatively good reliability results despite relatively low capital expenditures. However, although DP&L's SAIDI and SAIFI have been relatively strong, they already are showing some signs of deterioration, as they have risen in the last several years. DP&L's SAIDI scores were 88, 103 and 104 in 2016, 2017 and 2018, respectively, while its SAIFI scores were 0.77, 0.85 and 0.91. These results alone do not mean that DP&L's underinvestment has led to a deterioration in its reliability scores. However, as I describe below, my regression results demonstrate using a larger amount of data that, if DP&L continues to underinvest, it could lead to significant continued deterioration in reliability.

**Q. What effect do your regression results predict if DP&L were to reduce its capital expenditures?**

A. My regression results indicate that a reduction in capital expenditures likely would lead to a deterioration in reliability. To illustrate the magnitude of the predicted effects, I consider a 50 percent reduction in capital expenditures even though DP&L would have to reduce its capital expenditures even more if it were faced with ESP I with no RSC or an MRO with no FIC.

Table 6 below (drawn from Exhibit RJM-27) shows the predicted effect of DP&L reducing its capital expenditures by 50 percent. The results indicate that a 50 percent reduction in DP&L's capital expenditures could lead to a 15 to 23 percent (20 to 38 minutes) increase in the average duration of an outage (SAIDI). Similarly, a 50 percent reduction in DP&L capital expenditures would lead to a 10 to 11 percent increase in the frequency of outages,

which translates into an increase of 0.13 to 0.14 in the average number of times a system customer experiences an outage (SAIFI).

These results are based on the average change in reliability that U.S. utilities experience in response to changes in their capital expenditures. DP&L's actual results may be better or worse. Considering the age of DP&L's assets, due to years of having to forego capital investments to service debt, DP&L is more likely to be on the worse end. Moreover, continued underinvestment in capex likely would result in the reliability numbers diminishing at a greater rate over time.

**TABLE 6**  
**ESTIMATED RESPONSE OF SAIDI AND SAIFI TO A**  
**50 PERCENT REDUCTION IN CAPEX**

	SAIDI		SAIFI	
	Level	Log	Level	Log
	[A]	[B]	[C]	[D]*
[1] Estimate of CapEx per MWh (log)	- [29 – 46]	- [0.32 – 0.47]	- [0.18 – 0.19]	- [0.20 – 0.22]
[2] Implied Elasticity	- [0.29 – 0.47]	- [0.32 – 0.47]	- [0.22 – 0.22]	- [0.20 – 0.22]
[3] Change in Response to CapEx Reduction by 50%				
[4] <i>Approximate Percent</i>	15% – 23%	16% – 23%	11% – 11%	10% – 11%
[5] <i>Units</i>	20 – 32	24 – 38	0.13 – 0.13	0.13 – 0.14

**Q. Please summarize the results of your capital expenditure analysis as it relates to DP&L.**

A. My analysis shows that the projected increase in capital expenditures for DP&L will bring DP&L's capex more in line with its peers. This increase will benefit customers in two important ways. First, it will protect against any potential decline in the safety and reliability of DP&L's service due to DP&L's historical relative underinvestment. Second, it will serve to bring DP&L's general service quality more in line with industry norms and allow DP&L's customers to enjoy the benefits of grid modernization. While DP&L has been successful in managing safety and quality despite relatively low capital expenditures

in recent years, maintaining safety and quality is not sustainable in the long-run absent sufficient investment.

## **VI. MFA TEST**

### **A. Overview**

**Q. Do prior Commission decisions provide guidance on how to conduct the MFA Test?**

A. Yes. In prior rulings in which the Commission has decided that ESPs met this “more favorable in the aggregate” test, the Commission has taken a broad view of the expected effects of the different rate regimes to consider when performing this test, including (a) quantifiable differences in the prices to be charged to customers for electric generation service under each rate regime (Aggregate Price Test), (b) other quantifiable differences in customer charges (or, potentially, metrics of customer service), and (c) non-quantifiable differences.<sup>124</sup> This last category potentially includes a wide range of impacts, including expected short- and long-run effects on price, service quality, reliability and the range of product offerings. These differences also support broader effects on Ohio’s economy through the impact of electric rates and services to business and industry within the state.

Reflecting this broad perspective, my assessment of the MFA requirement considers multiple quantifiable and non-quantifiable characteristics of ESP I versus those of a hypothetical alternative MRO.

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<sup>124</sup> Public Utilities Commission of Ohio, Opinion and Order, Case No. 11-346-EL-SSO, August 8, 2012, at 77; Public Utilities Commission of Ohio, Opinion and Order, Case No. 12-1230-EL-SSO, July 18, 2012, at 56-57.

**B. Aggregate Price Test**

**Q. What is the Aggregate Price Test?**

A. The Aggregate Price Test is a comparison of the rates and charges to customers under the ESP to rates and charges to customers under an MRO. The Aggregate Price Test reflects a comparison of both bypassable and non-bypassable charges. Bypassable charges are charges that are paid only by customers that choose DP&L's SSO. Thus, customers who choose to take generation service from a CRES provider "bypass" these charges. Non-bypassable charges are charges paid by all customers that receive distribution service from DP&L.

**Q. Please describe the comparison of generation charges.**

A. Under both ESP I and an MRO, I assume that generation rates reflect the Competitive Bidding Plan ("CBP") rate, which reflects the projected results of competitive bidding for the opportunity to supply DP&L's retail customers. Consequently, the generation rates will be the same under both the MRO and Amended Stipulation so they do not affect the Aggregate Price Test.<sup>125</sup>

**Q. Do you also consider other customer charges?**

A. Yes. The Aggregate Price Test explicitly considers non-bypassable charges, such as the RSC included under ESP I. Over the four-year period of the ESP, the RSC totals \$314 million (\$79 million average). The MRO does not include that charge, but does include a

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<sup>125</sup> I understand that the nonbypassable costs to be recovered through the Legacy Generation Rider would be recoverable under both ESP I and a hypothetical MRO. Those costs thus have no effect on the MFA test.



bypassable FIC in the range of [REDACTED] to [REDACTED] each year, or [REDACTED] to [REDACTED] over four years.

An additional customer charge that affects the MRO but not the ESP is the recovery of about [REDACTED] of environmental expenses related to the Hutchings generation plant that are projected to occur in [REDACTED].

**Q. What is the result of the Aggregate Price Test?**

A. Under the Aggregate Price Test, ESP I is less expensive by [REDACTED] in total, or an average of [REDACTED] annually. This difference is comprised of [REDACTED] due to the cost of the FIC relative to the RSC, plus [REDACTED] related to recovery of environmental costs from generation. The present value of the cost savings afforded by the ESP are lower than the nominal totals, but are [REDACTED] and are even larger at lower discount rates.<sup>126</sup>

**Q. Did you quantify any of the other non-bypassable customer charges as part of the Aggregate Price Test?**

A. No. ESP I includes several other non-bypassable charges, such as the Infrastructure Investment Rider, Legacy Generation Rider, and Storm Rider, that I do not explicitly address in my analysis. These charges are presumably recoverable under both ESP I and a hypothetical MRO (through the MRO itself, a distribution rate case, or other proceeding). Consequently, they have no material impact on the Aggregate Price Test.

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<sup>126</sup> Exhibit RJM-28.

**C. Other Quantifiable Differences**

**Q. Have you performed any analyses of other quantifiable benefits of ESP I versus the hypothetical MRO?**

**A.** To date, I have not identified any other quantifiable differences between ESP I and the hypothetical MRO.

**D. Non-Quantifiable or Difficult-to-Quantify Differences**

**Q. Are there non-quantifiable or difficult-to-quantify benefits of ESP I as compared to an MRO?**

**A.** Yes. First, I understand that AES plans to invest \$300 million of new equity under the ESP with the RSC, but does not plan to do so under an MRO. This additional equity would improve the financial condition and integrity of DP&L and DPL at a reduced cost to customers.

The second benefit, I understand, is that the ESP statute would require DP&L to issue refunds to customers if its actual return on equity exceeded a SEET threshold, and there is no SEET test under an MRO. Customers under an MRO thus lose the benefit afforded by that protection.

The third benefit relates to the fact that the Commission has repeatedly found that ESPs are more favorable in the aggregate than MROs. It is my understanding that once the Commission has approved an MRO for a utility, then that utility will never be able to implement an ESP in the future. The Commission would thus lose the option of approving future beneficial ESPs if it approved an MRO for DP&L.

1 The fourth benefit is that I understand that any FIC under an MRO would be bypassable.  
 2 Customers would have an incentive to switch to competitive providers to avoid the charge.  
 3 The departure of those customers would not lessen DP&L's financial needs, which means  
 4 the FIC would need to stay the same, but be collected from fewer SSO customers. The  
 5 remaining customers would each face higher financial integrity charges, which would  
 6 further increase the incentive for those remaining customers to switch providers. That  
 7 process would repeat until there are no customers left to pay the charge, which has been  
 8 referred to as the “death spiral” effect.

9 The fifth benefit is that any rate increases will be more gradual under ESP I than under a  
 10 hypothetical MRO. The reason that rate increases would be more gradual is that ESP I  
 11 includes the IIR, which allows grid modernization investments to be included in rates on a  
 12 near-real-time basis. In a hypothetical MRO, the grid modernization investments would be  
 13 included in rates only through a distribution rate case, which would result in infrequent and  
 14 lumpy increases. ESP I provides for gradualism and thus minimizes rate shock.

15 Finally, although my projections under ESP I show that DP&L’s financial condition would  
 16 be stabilized and it would be able to make its needed capital expenditures under a  
 17 hypothetical MRO, its operating metrics would be somewhat less robust. All else equal,  
 18 this is a non-quantifiable difference that favors the MRO, with its higher FIC, over the ESP.  
 19 However, the value of this difference is offset by the benefits of AES’s planned \$300  
 20 million equity infusion under ESP I, which would help to improve DP&L’s and DPL’s  
 21 financial integrity and help them [REDACTED], while also [REDACTED]  
 22 [REDACTED].

From an economic perspective, it is difficult to quantify the above net benefits of ESP I compared to an MRO, but these benefits are real. As such, they must have an economic effect. Thus, ESP I would have significant non-quantifiable or difficult-to-quantify benefits that an MRO would not have.

**Q. Have you considered an MRO that had a different financial integrity charge?**

A. The prior discussion assumed the MRO contained an annual FIC in the range of [REDACTED]. If the PUCO approved an MRO that contained an FIC lower than the \$79 million average annual RSC, the MRO likely would be more attractive than the ESP under the Aggregate Price Test, but would not necessarily be better under the MFA Test. The ESP may remain more favorable despite the higher cost because such an MRO would have impaired financial integrity, giving rise to non-quantifiable costs such as declines in reliability. Specifically, if the MRO had an FIC that was lower than the RSC, DP&L would be forced to make cuts to its O&M and capital expenditures, which would negatively impact DP&L's ability to provide safe and reliable service.

In addition, all three credit rating agencies have a negative outlook on their ratings of DP&L and DPL, and have stated that failure to approve the RSC of \$75 million or more annually likely would result in downgrades. The consequences of downgrades, some of which are difficult to quantify, are both real and significant. These include reducing DP&L's access to credit on reasonable terms to facilitate borrowing to support grid modernization and other necessary business operations, including expanding the services offered to its customers. Compounding these financial challenges, I understand that AES would likely not make the \$150 million equity investment under an MRO without an adequate FIC.

**E. Summary and Conclusions**

**Q. Please summarize your conclusions regarding the MFA Test in this case.**

A. ESP I is more favorable for customers than the hypothetical MRO because its aggregate costs to customers are lower based on the Aggregate Price Test and has favorable non-quantifiable factors that the hypothetical MRO does not.

**VII. SIGNIFICANTLY EXCESS EARNINGS TEST**

**Q. Please describe the SEET.**

A. As specified by Ohio Revised Code,

The commission shall also determine the prospective effect of the electric security plan to determine if that effect is substantially likely to provide the electric distribution utility with a return on common equity that is significantly in excess of **the return on common equity that is likely to be earned by publicly traded companies**, including utilities, that face comparable business and financial risk, with such adjustments for capital structure as may be appropriate.<sup>127</sup>

With this direction in mind, I evaluate SEET for the period 2020 through 2023 by comparing the ROE that DP&L projects under ESP I to the threshold ROE based on relevant publicly traded companies.

**A. DP&L's SEET ROE**

**Q. What are DP&L's projected ROEs under ESP I?**

A. Exhibit RJM-29 shows that the ROEs range from [REDACTED], with an average of [REDACTED].

<sup>127</sup> R.C. 4928.143(E) (emphasis added).

**B. SEET Threshold**

**Q. What is the threshold above which DP&L's ROE would be significantly excessive?**

A. In past annual SEET proceedings, I understand that the Commission has relied on a sample of companies from the XLU exchange traded fund ("XLU"), which consists of utilities and other energy firms that have been deemed to have business and financial risk comparable to a T&D utility such as DP&L. Thus, an appropriate SEET threshold in this case that fits with Commission precedent can be calculated based on this sample. My approach in this case is to calculate the average historical ROEs for the XLU companies over the last four years to match the four year projection period in this case. This average ROE is 10.4 percent. I then multiply this average ROE by 1.5, again based on a methodology that I understand has been favored by the Commission in past proceedings, resulting in a SEET threshold of 15.6 percent. In addition, Witness Garavaglia testifies that an additional 100 basis points (one percent) should be added to these percentages to reflect DP&L's "higher-than-usual operational risks" and increased risk from its planned investments in infrastructure going forward. Adding one percent to the threshold above results in a 16.6 percent SEET threshold.<sup>128</sup>

**Q. Did you consider alternatives in performing your analysis of the SEET threshold?**

A. In addition to examining the SEET threshold based on the XLU sample, I also analyzed other samples of potentially appropriate SEET thresholds. The results of this analysis produced potentially appropriate SEET thresholds ranging from 13.6 to 15.0 percent.

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<sup>128</sup> Garavaglia Testimony, at 3-8.

**Q. How did you determine your overall range of SEET thresholds?**

A. I calculated this range of thresholds by first determining the appropriate SEET benchmark ROE for DP&L and second determining the appropriate amount by which the ROE could exceed this benchmark before being significantly excessive. I calculate the benchmark ROE as the arithmetic average of ROEs in a sample of peer firms, and I calculate the spread between the threshold and the benchmark using two alternative approaches. The first of these approaches multiplies the standard deviation of peer ROEs by 1.64. This criteria is consistent with a statistically-based approach in which the cutoff for significantly excessive is the top ten percent of a normally distributed sample. I also consider a second approach that calculates the threshold by multiplying the SEET benchmark by 1.5.

To determine the average and standard deviation, I examine several samples of peer firms. My first sample is comprised of the firms in the XLU exchange traded fund (26 firms), which I understand has been relied upon in the past by the Commission. My second sample is composed of 23 firms that are in Value Line's Electric Utility Index (East, Central, or West) that also have credit ratings of BBB+, BBB, or BBB-. I selected these utilities at the low end of investment grade to be more comparable in risk to DP&L, which also has a low-end investment grade rating. I refer to this set of firms as the "Value Line All Comparable"

sample.<sup>129</sup> My third sample is the full set of firms obtained by combining these samples (40 firms).<sup>130</sup>

I collect annual ROEs from Value Line's current company reports for each of these firms for the historical period of 2016 through 2019, as well as forecasts for 2021, 2022, and either 2023-2024 or 2024-2025 (as available).<sup>131</sup>

**Q. Are any special steps required for this prospective SEET analysis?**

A. Yes. Given the prospective nature of this SEET analysis, I examine annual ROEs for the most recently available four year period, 2016 through 2019. For each firm, I take the average of the four annual ROEs to smooth out year-to-year variation.<sup>132</sup> I also consider the average of the ROE forecasts provided by Value Line.

### **C. SEET Results**

**Q. What are the results of your prospective SEET analysis?**

A. Exhibit RJM-30 shows the SEET threshold from the Value Line All Comparable sample is 13.9 percent. This threshold is calculated as a benchmark ROE of 10.0 percent plus 1.64

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<sup>129</sup> I also examined a sample of firms in the Value Line Electric Utility (Central) index (without applying an additional restriction on the credit rating). The results for this sample, which are consistent with my other results, appear in my Exhibits.

<sup>130</sup> In recognition that the statutory language regarding the SEET allows for publicly traded companies that are not utilities, I also considered a broader sample of firms that are comparable in terms of business risk (unlevered beta) and financial risk (book equity to book assets). This analysis results in a peer sample that spans many industries and has significantly higher variability in average ROEs. Because of the much higher ROE standard deviation, the resulting SEET threshold from this approach is also much larger than the Value Line utility index sample or the XLU sample.

<sup>131</sup> Value Line normalizes ROEs to exclude extraordinary or non-recurring items.

<sup>132</sup> A retrospective SEET analysis would not use this time-averaging because ROEs for the subject firm and the peer firms are measured contemporaneously. If the peer firms are suitably comparable, the events unique to a specific year that could lead to unusually high or low ROEs would affect both the subject firm and the peer firms used as a benchmark.



times the standard deviation of 2.4 percent. Using the other samples gives a SEET thresholds of 14.3 percent (XLU), and 13.6 percent (full sample).

Calculating the SEET threshold as 1.5 times the SEET benchmark results in higher thresholds: 15.0 percent using the Value Line All Comparable sample, 15.6 percent with the XLU sample, and 14.7 percent for the full sample.<sup>133</sup>

As noted above, the average ROE for DP&L during the forecast period is [REDACTED], and the highest ROE is [REDACTED] in [REDACTED]. These values are all below the SEET threshold of 13.1 to 15.6 percent. Moreover, these values are also all at or below the “safe harbor” of 11.8 to 12.4 percent (two percentage points above the benchmark ROE).

**Q. What are your conclusions as to the prospective SEET?**

A. My analysis shows that the forecast ROEs for DP&L for the period 2020 through 2023 are not significantly in excess of the return on comparable publicly traded companies.

**Q. Do you have any other observations based on your financial projections for ESP I with RSC?**

A. Yes. As noted, the projected ROEs under this scenario range from [REDACTED] in [REDACTED] to [REDACTED] in [REDACTED] for an average of [REDACTED] over the entire period. This projected average rate of return is below the SEET safe harbor threshold. However, it also is (a) [REDACTED], and (b) [REDACTED]. Furthermore, as noted, the average ROEs that Value Line projects for the companies in each of my samples

<sup>133</sup> Consistent with the multiplier that gives an adder of 0.5 times the mean, the difference between the 10.0 percent threshold and DP&L’s 4.8 cost of debt in its distribution rate case suggest an adjustment factor of 0.52.

1 range from 10.0 percent for the merged sample to 10.8 percent for the XLU sample. All of  
2 this evidence indicates that ESP I, as structured, results in a fair or even slightly low  
3 projected rate of return on equity for the projected equity investment in DP&L.<sup>134</sup> Any  
4 reduction to the RSC (or other revenues) would reduce this projected ROE below (or even  
5 further below) the [REDACTED], likely making the intended equity infusion uneconomic.

## 6 **VIII. CONCLUSION**

7 **Q. Please summarize the primary conclusions you have reached regarding the MFA**  
8 **Test.**

9 A. I conclude that ESP I, with the RSC of approximately \$79 million annually, is more  
10 favorable in the aggregate than a hypothetical MRO, which would have an FIC in the range  
11 of [REDACTED]. The difference between the RSC and the FICs result in  
12 total lower customer charges under ESP I of between [REDACTED] over  
13 the projection period. The MRO also allows DP&L to recover from ratepayers  
14 approximately [REDACTED] of environmental costs related to generation. Based on these  
15 differences, ESP I is more favorable than an MRP under the Aggregate Price Test.

16 ESP I is also more favorable than an MRO in terms of several non-quantifiable differences.  
17 First, under the proposed ESP I, AES plans to infuse an additional \$300 million in equity  
18 versus just \$150 million under the MRO. This additional equity capital will better enable

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134 [REDACTED]

1 DP&L to finance its grid investment at reasonable rates and manage its debt. Second, ESP I  
 2 affords customers protection against excessive rates through application of the annual  
 3 SEET, whereas an MRO does not. Third, ESP I provides flexibility because it is not  
 4 irreversible decision, as an MRO is. Fourth, ESP I avoids the “death spiral” that can arise  
 5 under an MRO as customers switch to CRES providers to avoid the bypassable FIC. Fifth,  
 6 ESP I would reduce rate shock that can arise under an MRO because ESP I allows gradual  
 7 recovery of grid modernization investments through the IIR, rather than the infrequent and  
 8 lumpy but significant increases when costs are recovered only through periodic base  
 9 distribution rate cases as in an MRO. Finally, although my projections under ESP I show  
 10 that, while DP&L’s financial condition would be stabilized and it would be able to make  
 11 its needed capital expenditures, its operating metrics would be somewhat less robust than  
 12 under a hypothetical MRO with an FIC. All else equal, these less robust metrics are a non-  
 13 quantifiable difference that favors the MRO, with its higher FIC, over the ESP. However,  
 14 the value of this difference is offset by the positive effect of the additional \$150 million in  
 15 equity that AES plans to make under ESP I. This additional investment would improve  
 16 DP&L’s and DPL’s financial integrity and help them [REDACTED], while  
 17 also [REDACTED]

18 [REDACTED].

19 Thus, in light of the significant quantifiable cost savings provided by ESP I, as well as  
 20 other non-quantifiable benefits, I conclude that ESP I is more favorable in the aggregate to  
 21 DP&L’s customers than an MRO.

1    **Q.    Please summarize your conclusions about the SEET for DP&L under ESP I.**

2    A.    I find that DP&L's projected ROE of [REDACTED] ([REDACTED] average), is  
3       well below a reasonable SEET threshold of 15.6 percent. In fact, the projected ROEs for  
4       DP&L are also below the safe harbor of 12.4 percent.

5       I calculated the SEET threshold using a standard approach and corroborated the results  
6       with alternative peer samples and methodologies. My conclusion that DP&L's projected  
7       ROEs are below the SEET threshold are robust to using peers from the XLU index, the  
8       firms Value Line's utility index that have BBB credit ratings, or the combined sample. My  
9       conclusion that the forecast ROEs for DP&L are below the SEET threshold is also robust  
10      to calculating the threshold as the peer average plus 1.64 times the peer standard deviation  
11      rather than 1.5 times the peer average.

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

13   A.    Yes.

## 1 TECHNICAL APPENDIX

2 **Q. Please explain what you mean by regression analysis.**

3 A. Regression analysis is a widely accepted statistical technique that uses data to estimate the  
4 relationship between a dependent (or left-hand-side) variable and one or more explanatory  
5 (or right-hand-side) variables. Regression analysis, or more generally econometrics, is  
6 widely used in legal proceedings and courtrooms.<sup>135</sup>

7 **Q. What firms did you use in your regression analysis?**

8 A. I began by examining the list of members of the Edison Electric Institute (EEI), which  
9 represents all investor-owned utilities in the United States. I selected this set of firms to  
10 allow the largest possible sample for which capital expenditure data would be publicly  
11 available via financial filings, such as SEC forms. I then matched these data to Energy  
12 Information Administration (EIA) Form 861 data, which contain SAIDI and SAIFI  
13 measures for the period 2013 through 2018. The resulting sample is known as a panel  
14 dataset because it includes many firms, each observed over time.

15 **Q. Please explain what you mean by panel dataset.**

16 A. A panel dataset tracks a cross section of observations over time. The panel data for the  
17 regressions described above includes 64 firms, with up to six annual observations each, for  
18 a total of about 345 observations. By using this panel dataset, my regression analysis made  
19 use of two types of changes in SAIFI/SAIDI in response to changes in capital expenditures:  
20 over time for a given utility firm and across firms in a given year. Including more firms

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<sup>135</sup> See, e.g., Fisher, F., "Multiple Regression in Legal Proceedings," *Columbia Law Review*, 80:4, 1980, at 702-736; Rubinfeld, D., "Econometrics in the Courtroom," *Columbia Law Review*, 85:5, 1985, at 1048-1097.

and more observations of each firm means that, all else equal, one can have a higher degree of confidence in the results of the analysis.

**Q. What data did you use for this sample?**

A. To obtain a measure of capital expenditure intensity that is not distorted by variation in firm size, I divided each firm's capital expenditure in a year by the total megawatt hours of retail electricity the firm supplied that year. Then, to account for variability in investment from year to year, I averaged the annual capital expenditure per megawatt hour over the prior three years, smoothing out lumpiness that can arise from discrete investments. The three year window provides the largest window of data possible without skewing the results by the including the effects of the 2008 financial crisis.

**Q. What regression model did you use?**

A. I used multiple regression analysis that allowed me to estimate the effect of capital expenditures on reliability (SAIDI and SAIFI) while controlling for the states and years of the observation. In particular, in addition to transmission and distribution, some utilities are involved in electric generation and natural gas distribution. Because DP&L lacks electric generation and does not distribute natural gas, I identified utilities that also lack generation and gas distribution and constructed a 1/0 indicator or "dummy" variable "TD without Gas" equal to one when a utility does not have gas and generation operations and zero otherwise. Next, I created an interaction variable by multiplying capital expenditure per retail megawatt hour by the "TD without Gas" dummy variable. The dummy and the interaction variables capture the possibility that utilities with gas and generation operations might have different determinants of reliability than those without.

To account for the asymmetric distribution of the data (the mean in Exhibit RJM-21 is larger than the median), I used the natural logarithm of the average of the last three year's capital expenditure per retail megawatt hour. I performed one set of regressions using the level of SAIDI and SAIFI, and a second set using the natural logarithm of those variables.

**Q. Please explain what you mean by controlling for states and years.**

A. Controlling for these characteristics means that the regression includes variables that explicitly account for the year of the SAIDI or SAIFI observation and the state in which the utility operates. These variables are also used as dummy variables that take on the value of either zero or one. Including such dummy variables controls for variations in time and geography. For example, if service one year was disrupted more than normal due to weather (such as a polar vortex), that abnormal effect is picked up by the dummy variable rather than contaminating the estimate of the main variable of interest, the sensitivity of service quality to capital expenditures. Accounting for the impact of these factors allows one to measure the impact of capital expenditures on reliability with greater precision.

**Q. Is DP&L part of your regression analysis?**

A. Yes, DP&L is part of my regression analysis and is considered a utility without gas and generation operations.

**Q. Please describe the results of your regression analysis.**

A. Exhibit RJM-26 presents regression estimates of four regressions. The model fits the data very well, as demonstrated by the high R-squared, which measures the proportion of variation in the dependent variable that is explained by the regressions. The estimates of the year dummies provide a valuable insight into the overall safety trends. In particular,

1       they show that, all else equal, reliability deteriorates over time as demonstrated by the  
2       increasing year dummy estimates. The state dummy estimates allow a comparison of  
3       average safety across states. In particular, on average, Ohio's utilities are more reliable  
4       than those in the neighboring Michigan.

5       The main results for the model using the level of SAIDI show that, all else equal, a one  
6       percent decrease in capital expenditures per megawatt hour leads to approximately a 0.29  
7       minute increase in the average duration of supply interaction for a utility that has gas and  
8       generation operations. For a utility without gas and generation operations, the increase in  
9       the average duration of supply interruption may be up to 0.18 minutes higher—  
10      approximately 0.46 minutes. In comparison, the median peer firm has SAIDI of 108  
11      minutes. Note the parameter estimates of the interactions between the capital expenditure  
12      per retail megawatt and the "TD without Gas" dummy are economically large but  
13      statistically insignificant due to the small sample of Transmission and Distribution utilities  
14      without gas operations. For such firms, SAIFI and SAIDI might be more sensitive to the  
15      capital expenditure intensity, but such an estimate would be imprecise. As a result, I focus  
16      on the more conservative estimate that excludes the interaction effect (i.e., 0.29 minutes in  
17      response to a one percent decrease in capital expenditures per megawatt hour).  
18      Alternatively, in the model using the log of SAIDI, a one percent decrease in capital  
19      expenditures per megawatt hour lead to approximately 0.32 percent increase in the average  
20      duration of supply interruption for a utility with gas and generation operations. For a utility  
21      that does not have gas and generation operations this increase could be as high as 0.47  
22      percent.



Similarly, the results for the model using the level of SAIFI show that, all else equal, a one percent decrease in capital expenditures per megawatt hour leads to an increase in the chances of an outage (more precisely, the average number of times a system customer experiences an outage during the time period under study) of about 0.002. The estimate of the interaction term is economically small and statistically insignificant, which means that the results for the utilities without gas and generation operations have an increase in chances of an outage statistically indistinguishable from that of utilities with gas and generation operations. Similarly, when using the log of SAIFI the results demonstrate that a one percent decrease in capital expenditures per megawatt hour leads to approximately 0.20 percent increase in the chances of an outage.

**Q. What effect do your regression results predict if DP&L were to reduce its capital expenditures?**

A. To illustrate the magnitude of the predicted effects, I consider a 50 percent reduction in capital expenditures. Exhibit RJM-27 shows the predicted effect of DP&L reducing its capital expenditures by 50 percent. The most conservative results indicate that a 50 percent reduction in DP&L's capital expenditures would lead to a 15 to 16 percent (20 to 24 minutes) increase in the average duration of an outage (SAIDI). Similarly, a 50 percent reduction in DP&L capital expenditures would lead to an 11 percent increase in the chances of an outage, which translates into an increase of about 0.13 to 0.14 in the average number of times a system customer experiences an outage (SAIFI).

**Q. How robust are the results of your regression analyses?**

A. They are very robust. The log and level versions of my baseline regressions show nearly identical results. The coefficient estimates are very precise. In addition, sensitivity analyses

1       changing regression samples and alternative controls for generation and gas operations  
2       provide even stronger evidence of the negative effect of reducing capital expenditures.  
3       Finally, as an additional sensitivity analysis, I estimated the effect of Net PP&E per  
4       megawatt hour on SAIDI and SAIFI and obtain nearly identical results.

## APPENDIX A

### R. JEFFREY MALINAK Managing Principal

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Fax: (202) 530-0436  
jeffrey.malinak@analysisgroup.com

800 17<sup>th</sup> Street, NW  
Suite 400  
Washington, DC 20006

Mr. Malinak specializes in financial economics, with particular expertise in damages estimation, applied finance theory, and business and asset valuation. He has provided deposition and arbitration testimony on economic damages issues, and has testified on financial integrity, cost of capital and economic issues in utility rate hearings. Mr. Malinak has directed litigation projects in many industries on issues related to securities (including derivative securities), antitrust, breach of contract, taxation, regulatory economics, and intellectual property claims. Mr. Malinak has frequently addressed class certification and damages issues in securities fraud cases, as well as the myriad economic, financial, and accounting issues common to most damages calculations, such as cost of capital and prejudgment interest.

He has considerable experience in tax-related work, including leading Analysis Group teams in *Black & Decker, Inc. v. United States* and *Chemtech Royalty Associates L.P. v. United States*, as well as in financial institutions and risk management, having been heavily involved in the *Winstar* savings and loan litigations, and having also completed a major project on the risk of Fannie Mae. Mr. Malinak has acted as a management consultant to clients in the energy, environmental, and health care industries, and as an economic valuation and business strategy consultant to clients with new technology, intellectual property, and intangible assets.

He is the treasurer, head of the audit and finance committee, and a member of the executive committee and board of directors of the Meridian International Center, an international leadership organization that works with partners in the government, private, NGO, and educational sectors to create lasting international partnerships through leadership programs and cultural exchanges. Prior to joining Analysis Group, Mr. Malinak was a principal at Putnam, Hayes & Bartlett, Inc.

## EDUCATION

M.B.A. (Finance and Accounting), University of Texas Graduate School of Business (Austin, Texas)

B.A., Social Sciences, *with Distinction*, Stanford University (Palo Alto, California)

## PROFESSIONAL EXPERIENCE

- |           |  |
|-----------|--|
| 2000-     | <i>Managing Principal</i> , Analysis Group, Inc. (Washington, D.C.).<br>Financial and economic analysis and testimony related to complex securities, finance, accounting, antitrust and general business litigation. Financial and economic consulting related to public policy issues and business and other asset valuation. |
| 1997-1999 | <i>Vice President</i> , Analysis Group, Inc. (Washington, D.C.).   |
| 1996-1997 | <i>Vice-President and Secretary/Treasurer</i> , Malinak Medical Products, Inc., (Phoenix, Arizona), a wholesale medical supplies and service company.  |
| 1994-1996 | <i>Principal</i> , Putnam, Hayes & Bartlett, Inc. (Washington, D.C.).  |

1988-1993      *Associate*, Putnam, Hayes & Bartlett, Inc. (Washington, D.C.).  
1986-1987      *Staff Consultant*, Peterson & Co. (Houston, Texas).

## **CURRENT BOARD POSITIONS**

### **Meridian International Center, Washington, D.C.**

2014-Present    Member, Board of Directors and Executive Committee  
                      Treasurer and Chairman of the Audit and Finance Committee

## **PREVIOUS PROFESSIONAL POSITIONS**

### **Meridian International Center, Washington, D.C.**

2013-2014      Member, Audit Committee

### **American Society of International Law, Washington, D.C.**

2009-2011      Member, Audit Committee

## **SELECTED REPRESENTATIVE CONSULTING ENGAGEMENTS**

### **General Business Litigation**

#### **COURT OF CHANCERY OF THE STATE OF DELAWARE**

*Blue Mountain, et al. v. Bob Evans Farms, Inc.*

Overall project management and analysis of the long-term growth rate in cash flows for a consumer packaged goods food business. Key issues included the nature of the competitive forces affecting the relevant segment of the food industry, as well as the economics of long-term cash flow growth rates.

#### **AMERICAN ARBITRATION ASSOCIATION, WASHINGTON, D.C.**

*Major Commercial Bank v. Federal Deposit Insurance Corporation ("FDIC")*

Overall project management and analysis of the value of distressed commercial real estate and related loans in Puerto Rico. Also, in-depth analysis of proper accounting for impaired loans and Other Real Estate Owned under U.S. Generally Accepted Accounting Principles.

#### **CIRCUIT COURT FOR THE CITY OF ALEXANDRIA, VIRGINIA**

*General Motors Acceptance Corporation (GMAC) v. Field Auto City, Inc.*

Expert report (co-authored) regarding the damages sustained by a car dealership due to the alleged improper withdrawal of floor plan financing by GMAC.

#### **U.S. BANKRUPTCY COURT, SOUTHERN DISTRICT OF NEW YORK**

*In re: Genuity, et al., Debtors.*

Analysis of asset purchase agreement and damages in this bankruptcy proceeding. Key issues included the cause of bankruptcy, the value of the enterprise and the economic and financial impact of the proposed restructuring agreement.

#### **U.S. DISTRICT COURT, DISTRICT OF COLUMBIA**

*Philip L. Chabot, Jr. v. Brickfield, Burchette & Ritts, P.C. et al.*

Expert report regarding the value of an equity interest in a "greenfield" steel company at various stages in the firm lifecycle, including the seed capital and start-up financing stages.

UNITED STATES COURT OF FEDERAL CLAIMS, WASHINGTON, D.C.

*FDIC as Receiver for various Savings & Loan Institutions v. The United States*

Overall project management and analysis of damages. Key issues included the appropriateness of various damages theories and the value of leverage in the regulated thrift industry.

DISTRICT OF COLUMBIA AND DELAWARE CHANCERY COURTS

*Robert Haft v. Herbert Haft and Dart Group*

Analysis of the value of large holdings of common stock and options on the common stock of a number of public and private companies with a combined \$1 billion plus in revenues. Key issues included assumptions to use in a discounted cash flow analysis (DCF), the valuation of employee stock options and the applicability of minority and marketability discounts to securities prices.

**Securities and Commodity Market Litigation**

U.S. DISTRICT COURT FOR THE SOUTHERN DISTRICT OF TEXAS, HOUSTON DIVISION

*United States of America v. Mark David Radley, et al.*

Overall case management and analysis of natural gas liquids markets, propane price movements, market microstructure issues and allegations regarding market power and price manipulation. Key issues included the size and definition of the relevant market, the appropriate measurement of market power in the context of futures/forward contract markets, and appropriate methods for analyzing trading behavior and specific claims of price manipulation.

U.S. DISTRICT COURT FOR THE DISTRICT OF MARYLAND, BALTIMORE DIVISION

*United States Securities and Exchange Commission v. Agora, Inc., Pirate Investor, LLC and Frank Porter Stansberry*

Overall case management and analysis of the materiality to investors of certain information regarding a nuclear fuel processing firm contained in an investor newsletter. Key issues included the effect of public information releases on the firm's stock price.

U.S. DISTRICT COURT, DISTRICT OF MASSACHUSETTS

*Class v. Life Sciences Company 1*

Expert report on damages and participation in a mediation hearing. The analysis addressed the value of the common stock and other securities of a Life Sciences company at different times and under different assumptions.

U.S. DISTRICT COURT, DISTRICT OF MASSACHUSETTS

*Class v. Life Sciences Company 2*

Expert report on the alleged damages of the lead plaintiff, which was a hedge fund, and analysis of alleged class-wide damages. The expert report, which was filed in support of a motion in opposition to class certification, addressed the economic impact on the lead plaintiff of the simultaneous increase in value of a short position in the Life Sciences' firm's common stock and the decrease in value of the plaintiff's convertible bond position.

U.S. DISTRICT COURT FOR THE DISTRICT OF MASSACHUSETTS

*In Re: Xcelera.com Securities Litigation*

Overall case management and analysis of the efficiency of the market for the equity securities of an internet-related firm for class certification purposes in a 10b-5 matter. Key issues included the existence of limits to arbitrage (e.g., short sales constraints) and the extent of participation by traders who were trading based on non-fundamental economic criteria during the class period.

U.S. DISTRICT COURT FOR THE DISTRICT OF IDAHO

*Muzinich & Co., Inc. et al. v. Raytheon Company, et al.*

Overall case management and analysis of the efficiency of the market for the unregistered 144A bonds of a construction firm. Key issues included the existence of appropriate analyst coverage, the amount of trading volume, the nature of the reaction of the bond prices to new information and the size of the bid-ask spread.

COURT OF COMMON PLEAS, PHILADELPHIA COUNTY

*Plaintiff Class v. Sun Company, Inc.*

Overall case management and analysis of trading in Sun common stock related to allegations that a preferred stock redemption rate calculation was affected by stock price manipulation.

U.S. DISTRICT COURT, EASTERN DISTRICT OF PENNSYLVANIA

*Plaintiff Class v. Centocor, Inc.*

Analysis of alleged securities fraud damages and other economic issues in a 10b-5 matter involving allegations surrounding the announcement of the outcome of joint venture negotiations. Key issues included the measurement of abnormal stock returns in the presence of extreme volatility and the analysis of damages, if any, to various investor sub-classes, including day traders and short-sellers.

U.S. DISTRICT COURT, NORTHERN DISTRICT OF ILLINOIS

*Plaintiff Class v. Kemper Mutual Funds*

Analysis regarding distribution of returns on over 130,000 S&P500 futures transactions in investigation of improper trading and self-dealing by the fund manager in class-action involving investors in two public equity mutual funds. Key issues included definition of hedging strategies, trade matching methods and appropriate statistical methods.

TEXAS STATE COURT, BEAUMONT

*Plaintiff Class v. Paine Webber*

Analysis of the sale prices for limited partnership units. Key issues included the amount of damages sustained by two different investor classes, the average settlement amounts in securities fraud matters, and the value of a company after a roll-up reorganization into an equity financed company.

**Tax-Related Litigation**

UNITED STATES TAX COURT, WASHINGTON D.C.

*Major Media Company v. Commissioner of Internal Revenue*

Overall case management and analysis of a complex transaction and financial and industry data. Work included analysis of the economics and value of a major sports franchise, and valuation of a debt guarantee.

UNITED STATES TAX COURT, WASHINGTON D.C.

*Major Multinational Manufacturing Company v. Commissioner of Internal Revenue*

Overall case management and analysis of financial data and complex transactions. Work included assessing the economic substance and business purpose of a series of complex transactions in a repatriation matter.

UNITED STATES DISTRICT COURT, MIDDLE DISTRICT OF LOUISIANA

*Chemtech Royalty Associates, L.P., by Dow Europe, S.A. as Tax Matters Partner v. United States of America*

Overall case management and analysis of financial data and complex transactions. Work included assessing whether certain instruments were more akin to debt or equity from an economic point of view.

GOVERNMENT TAX-RELATED INVESTIGATION

*Major Non-U.S. Multinational Company v. United States*

Overall case management and analysis of computerized accounting data. Work involved obtaining and analyzing all of the computerized accounting data for a large division of a major multinational to determine the way the firm accounted for certain intercompany transactions and managed its cash flow.

UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF CALIFORNIA, SAN FRANCISCO DIVISION

*SCVHG Valley Housing Group, Inc. v. United States*

Overall case management and analysis of finance and valuation issues. Work included assessing the economic substance and business purpose of a transaction involving issuance of warrants, the valuation of the warrants, and the market valuation of an S-Corp's securities.

UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF CALIFORNIA, SAN FRANCISCO DIVISION

*SCVHG Valley Housing Group, Inc. v. United States*

Overall case management and analysis of finance and valuation issues. Work included assessing the economic substance and business purpose of a transaction involving issuance of warrants, the valuation of the warrants, and the market valuation of an S-Corp's securities.

AMERICAN ARBITRATION ASSOCIATION, CHICAGO, ILLINOIS

*Tax Payer v. Tax Transaction Participant*

Overall case management and analysis of finance and valuation issues. Work included assessing the economic substance of a transaction involving the purchase of emerging market distressed consumer and trade debt, determining the value of this distressed debt and performing "forensic accounting" analysis.

U.S. COURT OF FEDERAL CLAIMS

*National Westminster Bank, PLC. v. United States*

Overall case management and analysis of accounting issues. Work included the reconstruction of the financial statements of the U.S. branches of a foreign bank, based on accounting and other information that was incomplete and, in many cases, over 20 years old.

U.S. DISTRICT COURT, DISTRICT OF MARYLAND, BALTIMORE DIVISION

*WFC Holdings Corp. v. United States*

Overall case management and analysis of economic issues. Key issues included the economic substance and business purpose of a transaction involving the formation of a special purpose entity.

U.S. DISTRICT COURT, DISTRICT OF MARYLAND, BALTIMORE DIVISION

*Black and Decker, Inc. v. United States*

Overall case management and analysis of economic issues. Key issues included the economic substance and business purpose of a transaction involving the formation of a special purpose entity and the payoff structures of different financial instruments.

U.S. DISTRICT COURT, SOUTHERN DISTRICT OF W. VIRGINIA

*Flat Top Insurance Agency v. United States*

Expert report regarding the economic life and value of insurance renewal intangible assets to be used for tax depreciation purposes.



U.S. DISTRICT COURT, EASTERN DISTRICT OF VA, RICHMOND DIV.

*Trigon Insurance Company vs. United States of America*

Overall case management and analysis of economic issues in a tax refund case involving a customer base as an intangible asset.

### **Non-Securities Class Action Litigation**

U.S. DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY

*Beverly Clark, et al., v. Prudential Insurance Company of America*

Analysis of damages and other issues related to class certification. Key issues included the appropriate damages methodology and the extent to which individual inquiry was required to accurately determine damages.

### **Antitrust**

U.S. DISTRICT COURT, NORTHERN DISTRICT OF CALIFORNIA

*Central Garden & Pet Company v. The Scotts Company and Pharmacia*

Overall case management and analysis of antitrust damages. Key issues included the appropriate herbicide product market definition, the measurement of market power, and the effect of the trend towards “big box” retailers on herbicide manufacturers and distributors.

U.S. DISTRICT COURT, NORTHERN DISTRICT OF IOWA

*Act, Inc. v. Sylvan Learning Systems*

Overall case management and analysis of market power issues and antitrust damages.

TEXAS STATE COURT, CORPUS CHRISTI

*Independent Service Provider v. IBM*

Damages and antitrust analyses prepared on behalf of IBM. Key issues included definition of relevant markets, calculation of the defendant’s market share, calculation of antitrust and business disparagement damages and valuation of settlement options.

U.S. DISTRICT COURT, FLORIDA

*Thermo Electron & Rolls Royce, Inc. v. Florida Power & Light*

Analysis of damages due to alleged anticompetitive acts by an electric utility. Key issues included forecasting of fuel prices, business decision-making procedures, profitability of cogeneration facilities and the appropriate cost of capital to use in evaluating investments in electricity generation facilities.

TEXAS COURT

*ETSI Pipeline Project, et al. v. Burlington Northern, et al.*

Assistance to counsel in rebutting opposing expert’s lost profits damages claim. Key issues included the appropriate measure of lost profits and the appropriate discount and interest rates to apply in valuing the lost profits stream.

### **Environmental Insurance and Other Insurance Litigation**

CONFIDENTIAL MATTER

*Financial Institutions v. Group of Insurers/Reinsurers*

Analysis of potential trading and other losses due to business interruption resulting from a major hurricane.



SUPERIOR COURT OF THE STATE OF WASHINGTON, KING COUNTY

*Alcoa Inc., and Northwest Alloys, Inc., v. Accident and Casualty Insurance Company, et al.*

Analysis of the history of environmental regulation of various pollutants to determine the extent of government and industry knowledge regarding those pollutants at various policy dates. Analysis of economic damages due to environmental contamination.

ENVIRONMENTAL INSURANCE SETTLEMENT MATTER

*General Electric v. Environmental Insurance Firms*

Analysis of the value of future environmental remediation cost liabilities for settlement purposes, including the determination of the appropriate discount and inflation rates to use in valuing projected environmental remediation costs.

**Intellectual Property Litigation**

U.S. DISTRICT COURT, DISTRICT OF CONNECTICUT

*Joint Medical Products Corporation v. Depuy, Inc., et al.*

Analysis of patent damages. Key issues: the factors driving the buying decision in the hip implant market, fixed versus variable costs and relevant licensing rates for comparable products.

U.S. DISTRICT COURT, EASTERN DISTRICT OF VIRGINIA

*Wang Laboratories, Inc. v. America Online, Inc. and Netscape Communications Corp.*

Valuation of patented on-line services software interface features. Key issue: the economic value of customer retention.

U.S. DISTRICT COURT, EASTERN DISTRICT OF PENNSYLVANIA

*BTG USA, Inc. v. Magellan Corp. / BTG v. Trimble Navigation*

Patent damages: analysis of prejudgment interest, reasonable royalty, value of inventory on hand, preparation and investments made and business commenced (as of patent reissuance) involving a patent directed to secret or secure communications technology employed in global positioning systems products.

U.S. DISTRICT COURT, DISTRICT OF MASSACHUSETTS

*Polaroid v. Kodak*

Patent damages: analysis and preparation of trial exhibits in support of academic witness's discount and interest rate testimony. Analysis of fixed and variable costs for use in lost profits study involving an instant photography technology patent.

**Management Consulting and Valuation Projects**

CLIENT: FANNIE MAE

Overall responsibility for assisting in the preparation of a white paper appearing on Fannie Mae's website, including analysis of the financial risk of Fannie Mae. Key issues included the appropriate model to use in evaluating the risk of a large regulated mortgage banking and guarantee business with a sophisticated hedging operation using derivatives.

CLIENT: ENVIRONMENTAL INSURANCE FIRM

Expert report regarding the appropriate discount and inflation rates to use in calculating the present value of projected environmental remediation costs. Participation in settlement meetings.

CLIENT: HOSPITAL MANAGEMENT

Analysis of the value of a hospital in connection with a proposed hospital merger transaction. Key issues included the appropriate measure of hospital profits, the cost of capital to use in valuing those profits and the impact of market forces (e.g., managed care) on the hospital's future revenues.

CLIENT: MAJOR FEDERAL GOVERNMENT AGENCY

Review of the decision making methods and data regarding a large government energy project. Key issues included the best quantitative methods to use to support the government's decision, the appropriate discount rates to use in valuing different projects and the option value of flexibility when projecting the cost of private and government mega-projects.

CLIENT: WOOD FLOORING MANUFACTURER

Preparation of an economic feasibility study for the installation of a cogeneration facility by a basketball court flooring manufacturer. Effort included extensive research into the cost of constructing a facility and the projected cost of power in the Upper Peninsula of Michigan.

**Regulatory Consulting**

PUBLIC UTILITIES COMMISSION OF OHIO, Case No. 19-0162-EL-RDR

Pre-filed direct testimony focused on (a) the amount of a two-year extension of Dayton Power and Light's (DP&L's) Distribution Modernization Rider (DMR-E) that would be required to put DP&L in a financial position to invest in grid modernization at a reasonable cost, and to return it to a level of financial health consistent with its peers, and (b) whether such DMR-E would be favorable to DP&L's customers.

SOUTH CAROLINA PUBLIC SERVICE COMMISSION, DOCKETS NO. 2017-207-E; 2017-305-E; and 2017-370-E (Rate Proceeding Involving Nuclear Power Plant Costs)

Overall project management and analysis of economic and financial issues in a rate proceeding to determine the portion of over \$5 billion in capital and financing costs for an abandoned nuclear construction project that should be allowed in electricity rates. Issues addressed included the impact of regulatory disallowances on cost of capital, measurement of shareholder losses due to regulatory and political actions, and the appropriate calculation of utility revenue requirements.

PUBLIC UTILITIES COMMISSION OF OHIO, DAYTON POWER & LIGHT (DP&L) RATE PROCEEDINGS

Expert witness for DP&L on financial and economic issues in several rate proceedings. See Deposition and Trial Testimony section below.

SOUTH CAROLINA PUBLIC SERVICE COMMISSION, DOCKET NO. 2005-113-G (Application for Increase in Gas Rates and Charges)

Overall project management and analysis of the appropriate cost of capital for a natural gas distribution system.

U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.

*Energy Industry*

Expert affidavit and declaration on behalf of a number of energy firms in a Freedom of Information Act matter regarding the value of information contained in confidential business documents.

U.S. EPA AND/OR PUBLIC INTEREST GROUPS V. VARIOUS DEFENDANT FIRMS

*Various Industries*

Analysis of the present value of pollution control costs allegedly avoided due to non-compliance with Clean Water Act regulations. Work included review and critique of the EPA's "BEN" financial model for calculating the economic benefit of noncompliance with Clean Water Act regulations.

**DEPOSITION AND TRIAL TESTIMONY**

CIRCUIT COURT FOR THE COUNTY OF ORANGE, VIRGINIA

*McConnell v. McConnell*

Expert and rebuttal reports and hearing testimony regarding the meaning of "personal efforts" as applied to investing, and the increase (decrease) in value of marital assets due to such personal efforts.

PUBLIC UTILITIES COMMISSION OF OHIO, Case No.'s 16-0395-EL-SSO, 16-0396-EL-ATA and 16-0397-EL-AAM.

Pre-filed direct, deposition and hearing testimony (in both 2017 and 2019) focused on the issues of (a) whether the Amended Stipulation and Recommendation signed by Dayton Power and Light (DP&L) and various parties in interest is more favorable in the aggregate for ratepayers than a hypothetical Market Rate Offer, and (b) the impact of different rate plans and other assumptions on the financial integrity of DP&L.

PUBLIC UTILITIES COMMISSION OF OHIO, Case No.'s 12-426-EL-SSO, 12-427-EL-ATA, 12-428-EL-AAM, 12-429-EL-WVR and 12-672-EL-RDR

Pre-filed direct, rebuttal, deposition and hearing testimony on the issues of (a) whether the proposed Electricity Stabilization Plan filed by DP&L is more favorable in the aggregate for ratepayers than a hypothetical Market Rate Offer, (b) the impact of different rate plans on the financial integrity of DP&L, and (c) the current cost of capital for DP&L.

U.S. DISTRICT COURT, MIDDLE DISTRICT OF NORTH CAROLINA, DURHAM DIV.

*Humana Military Healthcare Services, Inc., v. Blue Cross and Blue Shield of North Carolina, et al.*

Expert report and deposition testimony regarding the amount of trade secret damages in the context of a large government managed care contract procurement.

AMERICAN ARBITRATION ASSOCIATION (BOSTON OFFICE)

*Pragmatech Software v. Silknet Software, Inc.*

Expert report and testimony at an arbitration hearing regarding the proper measure of damages in a breach of contract case involving alleged improper use of intellectual property / confidential information.

**PUBLICATIONS**

"Estimating the Cost of Capital," Litigation Services Handbook, The Role of the Financial Expert, Chapter 10 (pp. 10.1-10.25), Sixth Edition (2017) (co-authored with J. McLean).

"Estimating the Cost of Capital," Litigation Services Handbook, The Role of the Financial Expert, Chapter 7 (pp. 7.1-7.22), Fourth Edition (2007) (co-authored with G. Jetley and L. Stamm).

## **SPEECHES/COURSES**

“The Impact of Regulatory Uncertainty on Electric Utilities, Rate Payers, and Investors,” presentation to the Rutgers University CRRI (Center for Research in Regulated Industries) Western Energy Conference, June 2019 (with Megan Accordino, Ryan Hughes, Hunter Holland and Maria Schweitzer).

“First Mover Advantages and e-Competition: Sustaining Superior Profitability in e-Commerce,” presented as part of a panel titled, “Effective Use of Expert Witnesses in e-Commerce Antitrust Litigation,” at a regional meeting of the antitrust litigation section of the American Bar Association, February 2001.

“Savings & Loan Financial Modeling Issues,” presentation to the Receivership Goodwill Section of the Federal Deposit Insurance Corporation, October 2000 (confidential).

“Internet Patents -- Monetary Remedies” (with John C. Jarosz), American Intellectual Property Law Association (22nd Mid-Winter Institute titled, "IP Law in Cyberspace"), February 1999.

## **NEWSLETTER ARTICLES**

“Damage Awards – Royalty Rates versus Profit Rates,” IP Litigator, November/December 2000 (Volume 6, Number 6).

“Presenting Economic Expert Testimony to a Jury: Five Golden Rules,” antitrust litigation newsletter.

**EXHIBIT RJM-1**

**DPL INC AND DP&L  
OUTSTANDING LONG-TERM DEBT AS OF DECEMBER 31, 2019**

	Interest Rate	Maturity	Amount Outstanding
DPL Inc.			
Senior Unsecured Bonds	7.250%	2021	\$380.0
Senior Unsecured Bonds	4.350%	2029	\$400.0
Note to DPL Capital Trust II <sup>1</sup>	8.125%	2031	\$15.6
Unamortized Deferred Financing Costs			(\$5.9)
Unamortized Debt Discounts and Premiums, Net			(\$1.0)
DPL Inc. Total Long-Term Debt			\$788.7
DP&L			
First Mortgage Bonds	3.950%	2049	\$425.0
Term Loan	3.57-4.82% <sup>2</sup>	2022	-
Tax-Exempt First Mortgage Bonds	2.49-2.93% <sup>3</sup>	2020	\$140.0
U.S. Government Note	4.20%	2061	\$17.5
Unamortized Deferred Financing Costs			(\$5.4)
Unamortized Debt Discounts and Premiums, Net			(\$2.7)
DP&L Total Long-Term Debt			\$574.4
Total Consolidated Long-Term Debt			\$1,363.1
Less: Current Portion of Debt			(\$139.8)
Total Consolidated Long-Term Debt, Net of Current Portion			\$1,223.3

Notes & Sources:

In millions.

From DPL Inc. and The Dayton Power and Light Company Form 10-K for the Fiscal Year ended December 31, 2019, at 75, 119.

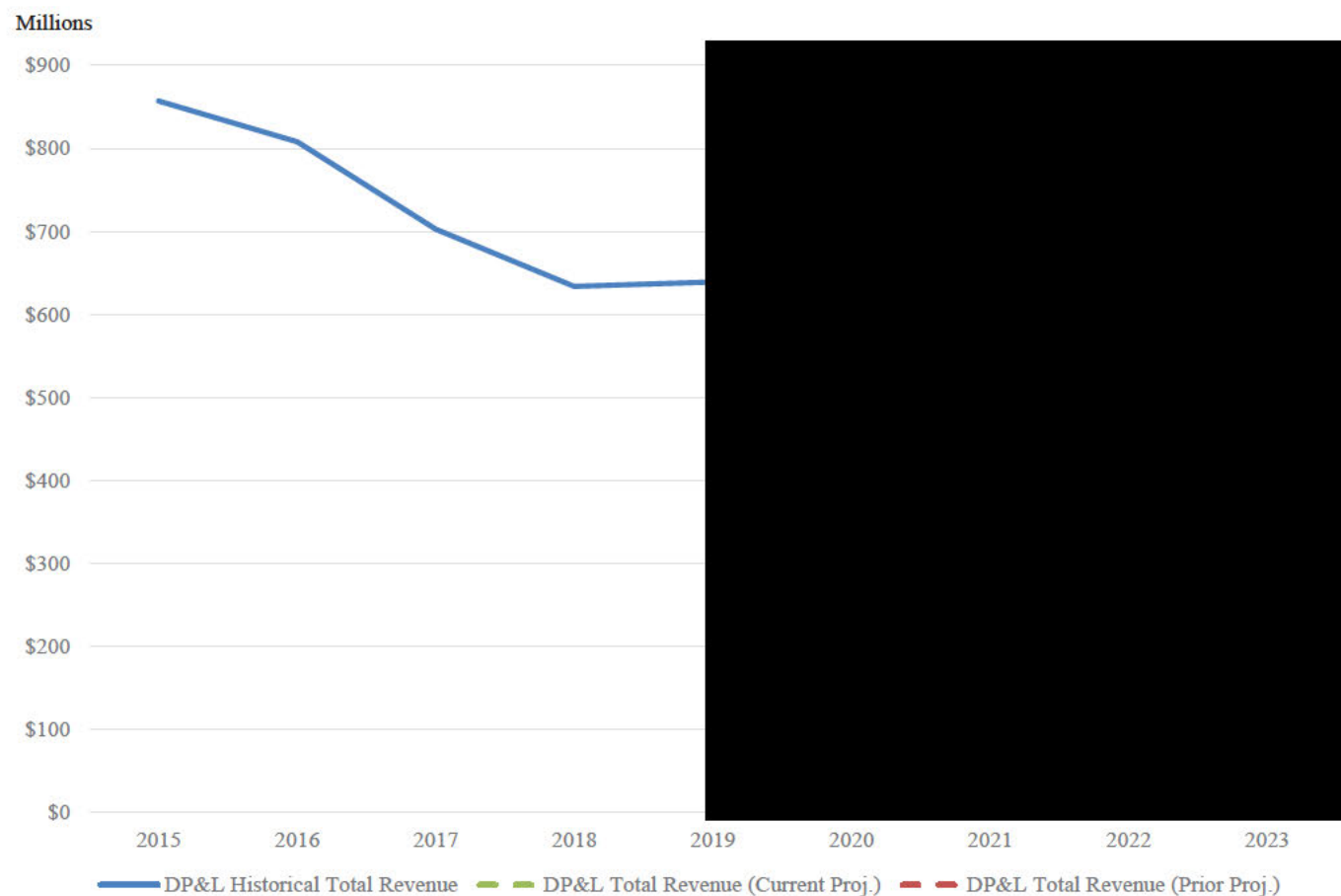
<sup>1</sup> Note payable to related party.

<sup>2</sup> Range of interest rates for the year ended December 31, 2019.

<sup>3</sup> Range of interest rates for the year ended December 31, 2019.

**EXHIBIT RJM-2A**

**DP&L HISTORICAL AND PROJECTED TOTAL REVENUE, 2015 – 2023  
EXCLUDING DMR/RSC AND GENERATION**



Notes & Sources:

DP&L Historical Total Revenue from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2019, at 26. In 2017, two months of DMR-E at \$105 million, calculated as  $2/12 \times \$105,000,000$ , are removed from total revenues.

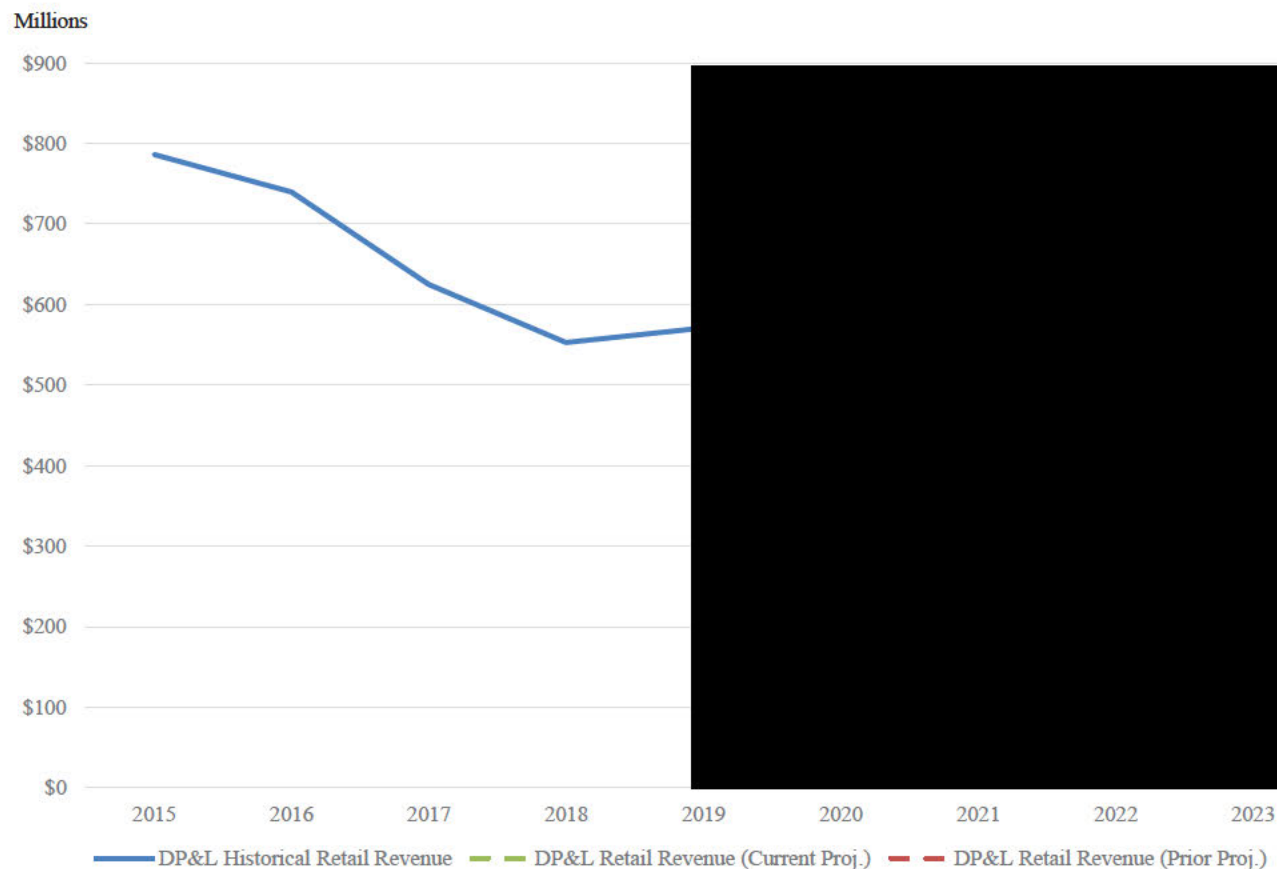
In 2018, twelve months are removed. In 2019, eleven months are removed.

DP&L Total Revenue (Current Proj.) from February 2020 internal Company projections. Assumes no or RSC, and static credit ratings.

DP&L Total Revenue (Prior Proj.) from December 2018 internal Company projections. Assumes no DMR or DMR-E, and static credit ratings.

**EXHIBIT RJM-2B**

**DP&L HISTORICAL AND PROJECTED RETAIL REVENUE, 2015 – 2023  
EXCLUDING DMR/RSC AND GENERATION**



Notes & Sources:

DP&L Historical Retail Revenue from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2019, at 34; DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2018, at 34; DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2017, at 49.

In 2017, two months of DMR-E at \$105 million, calculated as  $2/12 \times \$105,000,000$ , are removed from total revenues.

In 2018, twelve month are removed. In 2019, eleven months are removed.

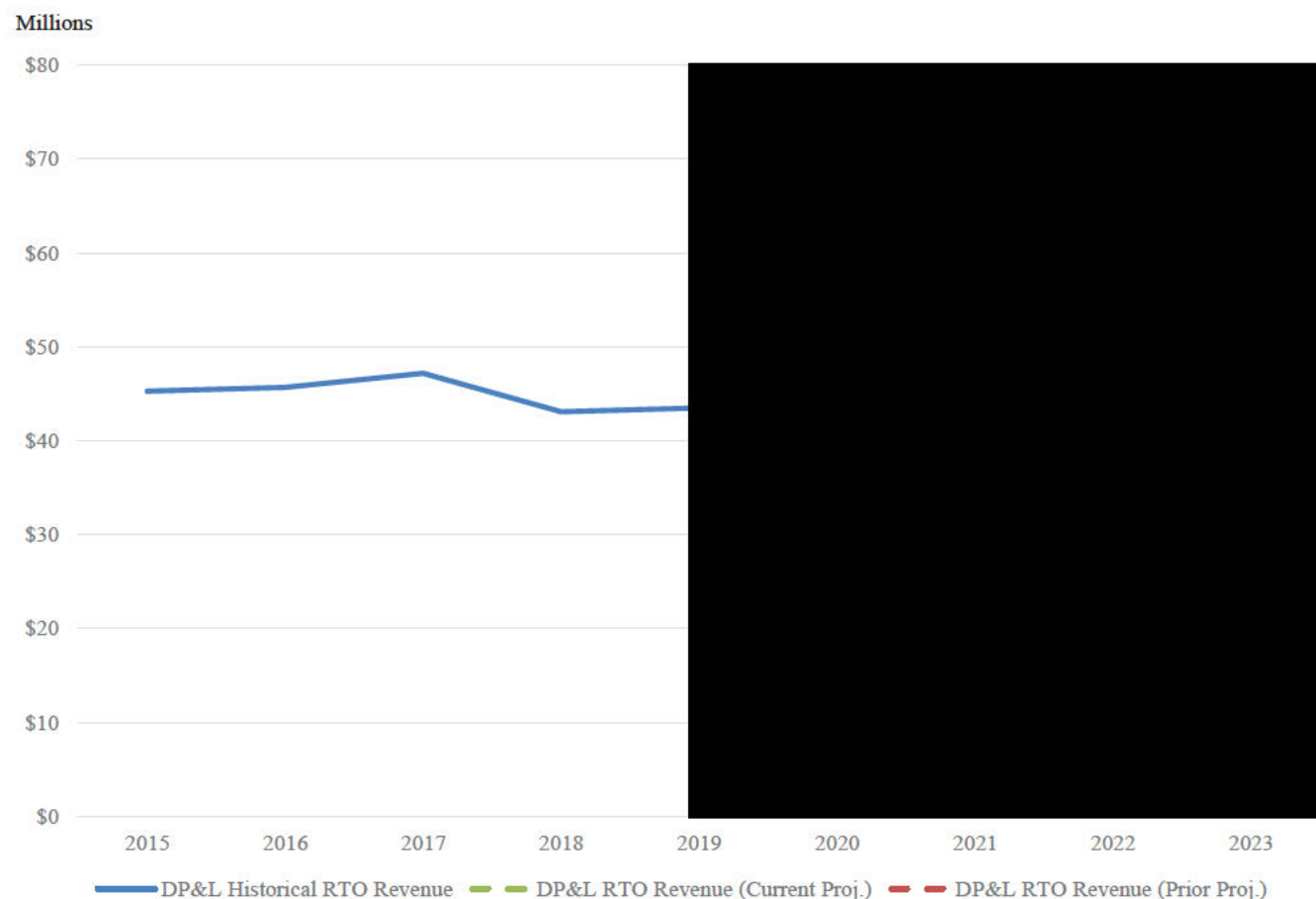
DP&L Retail Revenue (Current Proj.) from February 2020 internal Company projections. Assumes no RSC, and static credit ratings.

DP&L Retail Revenue (Prior Proj.) from December 2018 internal Company projections. Assumes no DMR or DMR-E, and static credit ratings.



**EXHIBIT RJM-2C**

**DP&L HISTORICAL AND PROJECTED RTO REVENUE, 2015 – 2023  
EXCLUDING DMR/RSC AND GENERATION**



Notes & Sources:

DP&L Historical RTO Revenue from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December

31, 2019, at 34; DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2018, at 34;

DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2017, at 49.

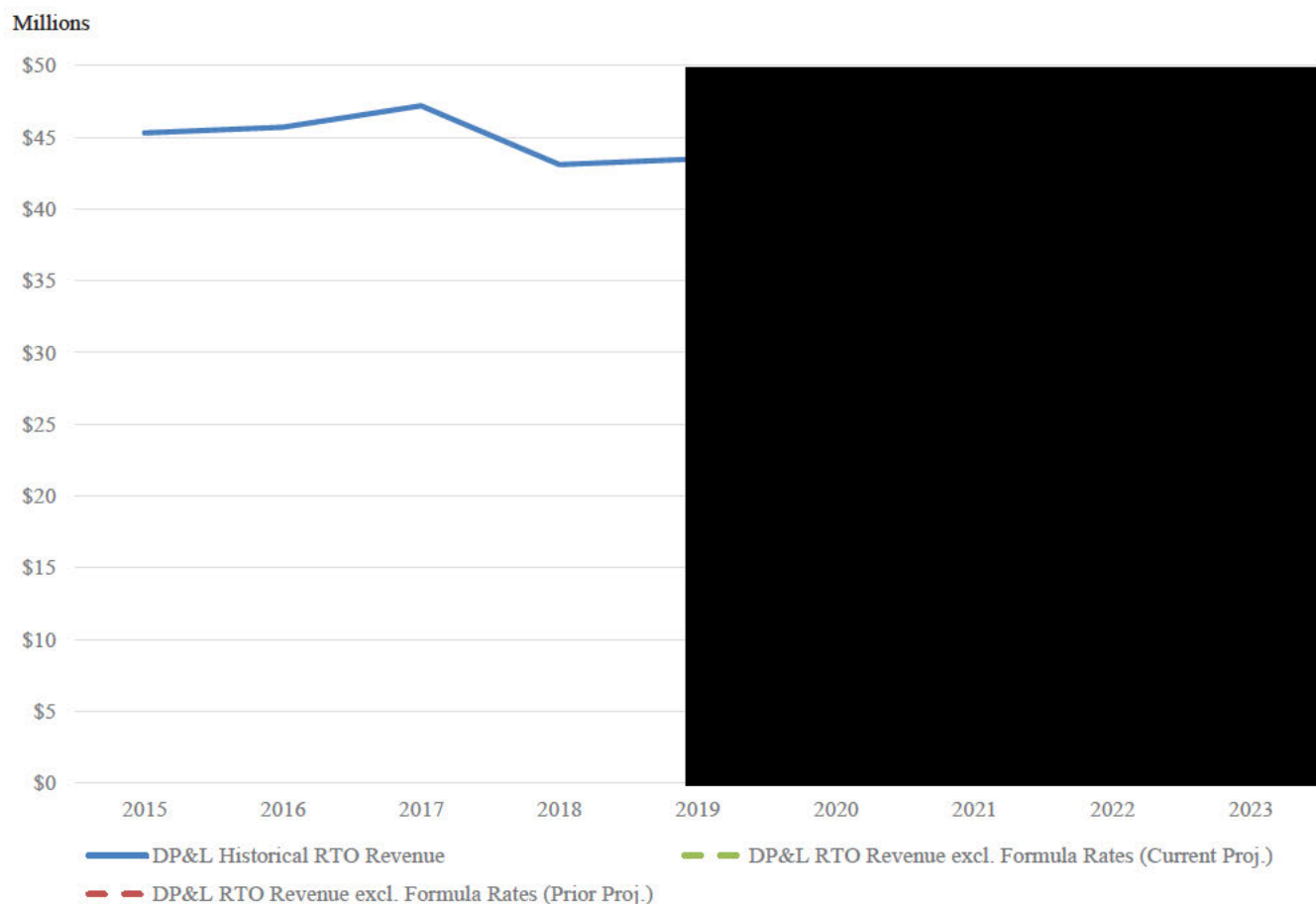
DP&L RTO Revenue (Current Proj.) from February 2020 internal Company projections. Assumes no RSC, and static credit ratings.

DP&L RTO Revenue (Prior Proj.) from December 2018 internal Company projections. Assumes no DMR or DMR-E, and static credit ratings.



**EXHIBIT RJM-2D**

**DP&L HISTORICAL AND PROJECTED RTO REVENUE EXCL. FORMULA RATES, 2015 – 2023  
EXCLUDING DMR/RSC AND GENERATION**



**Notes & Sources:**

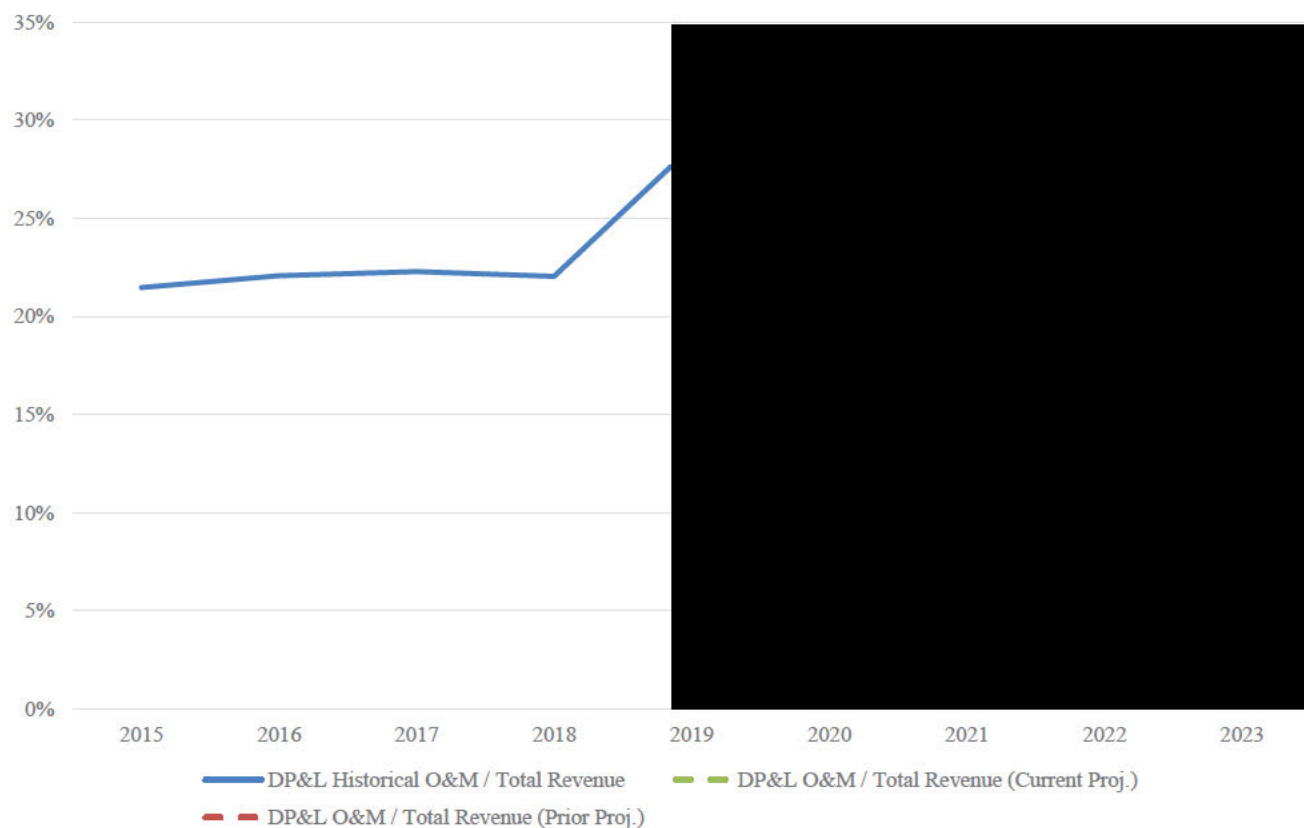
DP&L Historical RTO Revenue from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2019, at 34; DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2018, at 34; DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2017, at 49.

DP&L RTO Revenue excl. Formula Rates (Current Proj.) from February 2020 internal Company projections. Assumes no RSC, and static credit ratings.

DP&L RTO Revenue excl. Formula Rates (Prior Proj.) from December 2018 internal Company projections. Assumes no DMR or DMR-E, and static credit ratings.

**EXHIBIT RJM-2E**

**DP&L HISTORICAL AND PROJECTED O&M / TOTAL REVENUE, 2015 – 2023  
EXCLUDING DMR/RSC AND GENERATION**



**Notes & Sources:**

DP&L Historical O&M and Total Revenue from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2019, at 34; DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2018, at 34;

DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2017, at 49.

In 2017, two months of DMR-E at \$105 million, calculated as  $2/12 \times \$105,000,000$ , are removed from total revenues.

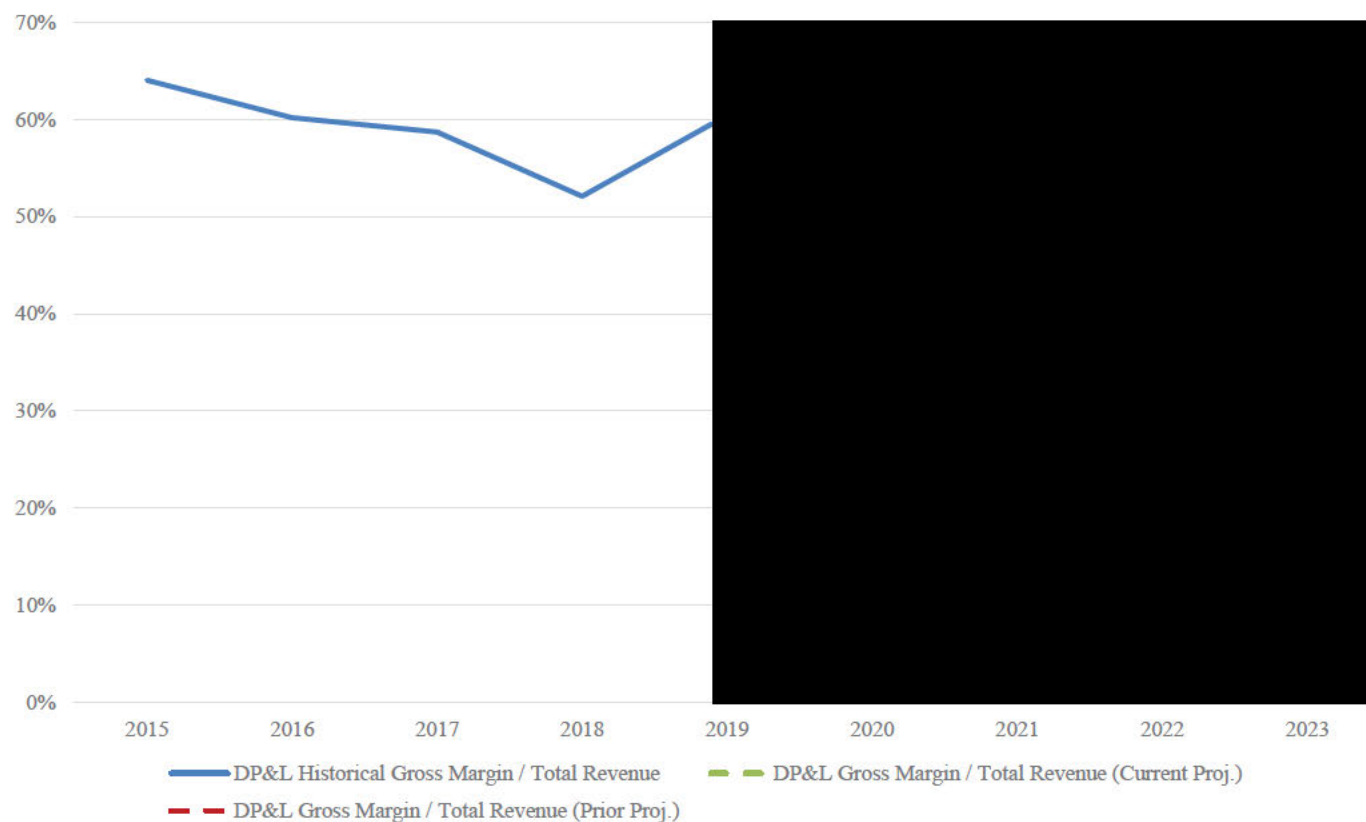
In 2018, twelve month are removed. In 2019, eleven months are removed.

DP&L O&M / Total Revenue (Current Proj.) from February 2020 internal Company projections. Assumes no RSC, and static credit ratings.

DP&L O&M / Total Revenue (Prior Proj.) from December 2018 internal Company projections. Assumes no DMR or DMR-E, and static credit ratings.

**EXHIBIT RJM-2F**

**DP&L HISTORICAL AND PROJECTED GROSS MARGIN / TOTAL REVENUE, 2015 – 2023  
EXCLUDING DMR/RSC AND GENERATION**



**Notes & Sources:**

DP&L Historical Gross Margin from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2019, at 34;

DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2018, at 34;

DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2017, at 49.

In 2017, two months of DMR-E at \$105 million, calculated as  $2/12 \times \$105,000,000$ , are removed from total revenues.

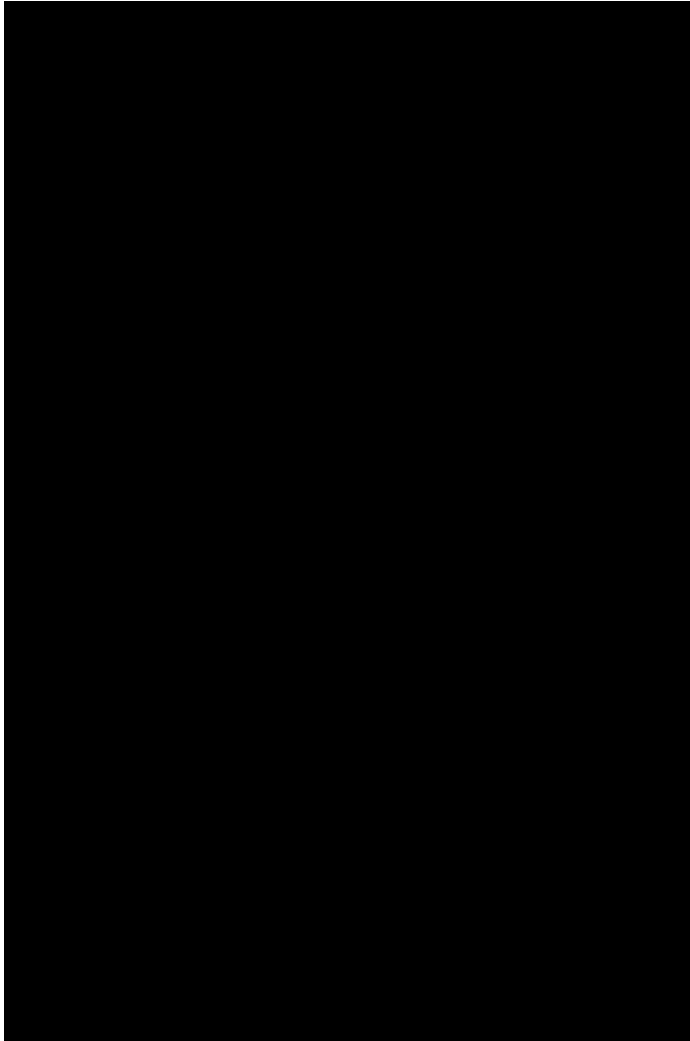
In 2018, twelve month are removed. In 2019, eleven months are removed.

DP&L Gross Margin / Total Revenue (Current Proj.) from February 2020 internal Company projections. Assumes no RSC, and static credit ratings.

DP&L Gross Margin / Total Revenue (Prior Proj.) from December 2018 internal Company projections. Assumes no DMR or DMR-E, and static credit ratings.

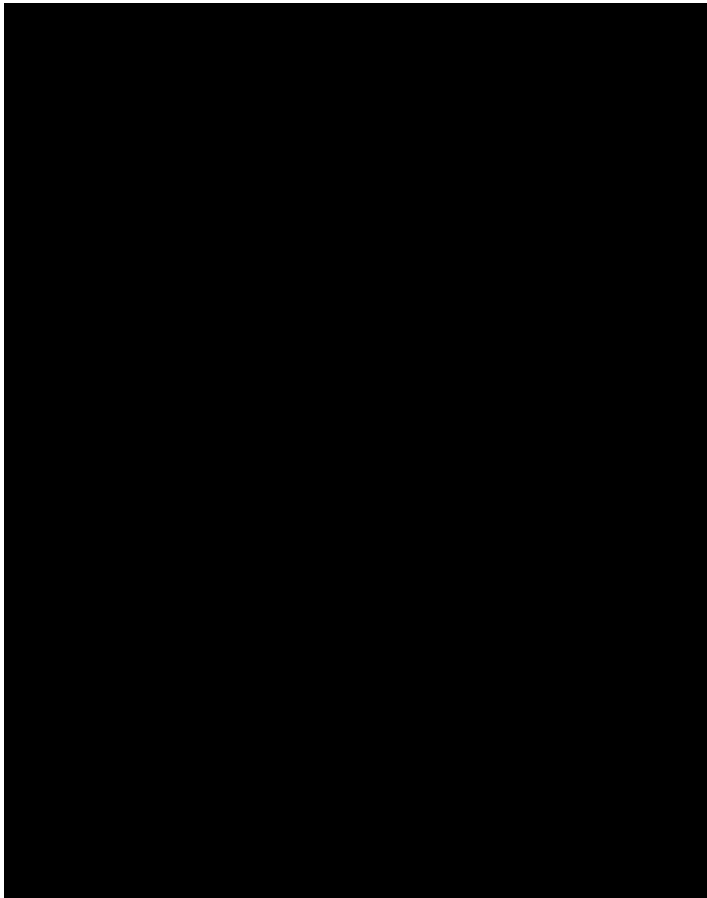
**EXHIBIT RJM-3**

**COMPARISON OF CURRENT AND PRIOR PROJECTIONS  
DP&L INTERNAL COMPANY FINANCIAL MODEL  
2020 – 2023**

	2020	2021	2022	2023
Residential Distribution Load (MWH)				
Current Projections				
Prior Projections				
% Difference				
Retail Distribution Load (MWH)				
Current Projections				
Prior Projections				
% Difference				
Residential Retained Load % (Retained SSO / Distribution Load)				
Current Projections				
Prior Projections				
% Difference				
Retail Retained Load % (Retained SSO / Distribution Load)				
Current Projections				
Prior Projections				
% Difference				
Residential Distribution Charge (\$/MWH)				
Current Projections				
Prior Projections				
% Difference				
Retail Distribution Charge (\$/MWH)				
Current Projections				
Prior Projections				
% Difference				
NITS Rate (\$/MWH)				
Current Projections				
Prior Projections				
% Difference				

**EXHIBIT RJM-3**

**COMPARISON OF CURRENT AND PRIOR PROJECTIONS  
DP&L INTERNAL COMPANY FINANCIAL MODEL  
2020 – 2023**

	2020	2021	2022	2023
Transmission Revenue (\$000s)				
Current Projections				
Prior Projections				
% Difference				
Distribution Revenues (\$000s)				
Current Projections				
Prior Projections				
% Difference				
Transmission O&M (\$000s)				
Current Projections				
Prior Projections				
% Difference				
Distribution O&M (\$000s)				
Current Projections				
Prior Projections				
% Difference				
O&M / Revenue (Transmission + Distribution)				
Current Projections				
Prior Projections				
% Difference				
Total CapEx				
Current Projections				
Prior Projections				
% Difference				

Current Projections from 2020–2023 DP&L Financial Model - FINAL REDACTED VALUES - HIGHLY CONFIDENTIAL.xlsx.

Assumes no RSC, and static credit ratings.

Prior Projections from 2019 Financial Model - FINAL REDACTED VALUES.xlsx.

Assumes no DMR or DMR-E, and static credit ratings.

EXHIBIT RJM-4

MOODY'S RATINGS TABLES

**Regulated Electric and Gas Utilities - Low Business Risk Grid**

Rating	Interest Coverage		CF/Debt		RCF/Debt		Debt/Capital	
	Min	Max	Min	Max	Min	Max	Min	Max
Aaa	8.0x	≥8.0x	38.0%	≥38.0%	34.0%	≥34.0%	<29.0%	29.0%
Aa	6.0x	8.0x	27.0%	38.0%	23.0%	34.0%	29.0%	40.0%
A	4.5x	6.0x	19.0%	27.0%	15.0%	23.0%	40.0%	50.0%
Baa	3.0x	4.5x	11.0%	19.0%	7.0%	15.0%	50.0%	59.0%
Ba	2.0x	3.0x	5.0%	11.0%	0.0%	7.0%	59.0%	67.0%
B	1.0x	2.0x	1.0%	5.0%	-5.0%	0.0%	67.0%	75.0%
Caa	<1.0x	1.0x	<1.0%	1.0%	<-5.0%	-5.0%	75.0%	≥75.0%

Notes & Sources:

Interest Coverage = (CFO Pre-WC + Interest Expense) / Interest Expense.

CF/Debt = CFO Pre-WC / Total Debt.

RCF/Debt = (CFO Pre-WC - Dividends) / Total Debt.

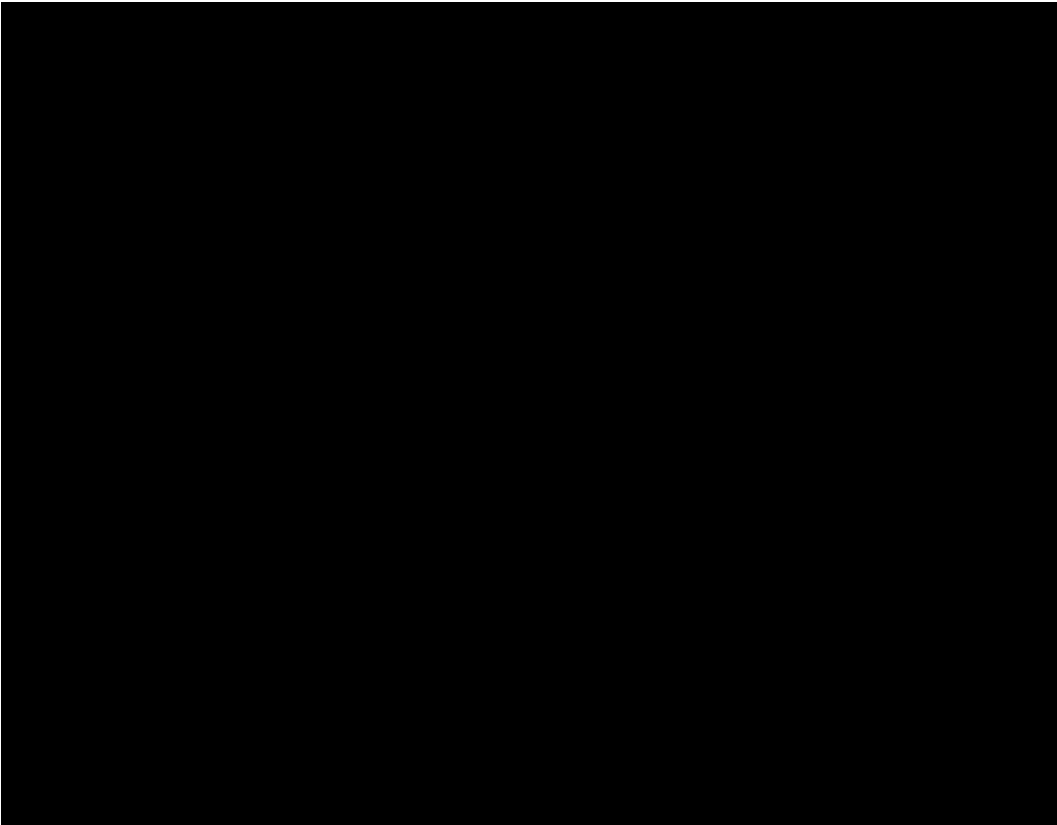
Debt/Capital = Total Debt / Total Capitalization.

Debt = Short-Term Debt + Long-Term Debt (including Current Portion) + Unamortized Debt Issuance Costs + Pension Liability.

From Moody's Rating Methodology, "Regulated Electric and Gas Utilities," June 23, 2017, at 22 (Low Business Risk Grid).

**EXHIBIT RJM-5A**

**DP&L PRO FORMA FINANCIAL RATIOS, 2020–2023  
MRO WITHOUT FIC**

Description	2020	2021	2022	2023	Average
[1] Financial Integrity Charge	-	-	-	-	-
[2] Total Revenue					
[3] Operating EBITDA					
[4] Interest Expense					
[5] Capital expenditures					
[6] Net Cash Provided by Operating Activities					
[7] CFO Pre-WC					
[8] Dividend Paid to Parent					
[9] Total Financial Debt					
[10] Total Debt (Moody's Definition)					
[11] Shareholder's Equity					
[12] Total Capitalization (Moody's Definition)					
[13] Revolver Capacity (Overdraw)					
[14] Debt/Operating EBITDA					
[15] Operating EBITDA/Interest					
[16] FFO-Adjusted Leverage (Fitch)					
[17] Leverage					
[18] Interest Coverage					
[19] CFO/Debt					
[20] Retained Cash Flow/Debt					
[21] Debt/Capital (Moody's Definition)					

**EXHIBIT RJM-5A**

**DP&L PRO FORMA FINANCIAL RATIOS, 2020–2023  
MRO WITHOUT FIC**

Notes & Sources:

In thousands.

[7] = [6] + Increase (Decrease) in Working Capital, calculated from Exhibit RJM-36B.

[9] = Long-Term Debt + Current Portion of Long-Term Debt + Short Term Debt. From Exhibit RJM-36B.

[10] = [9] + Pension & Benefit, from Exhibit RJM-36B.

[11] Calculated as Total Common Shareholder's Equity plus Preferred Stock, from Exhibit RJM-36B.

[12] = [10] + [11] + Accumulated Deferred Income Taxes, from Exhibit RJM-36B.

[13] From Exhibit RJM-7.

[14] = [9] / [3].

[15] = [3] / [4].

[17] = [9] / ([9] + [11]).

[18] = ([7] + [4]) / [4].

[19] = [7] / [10].

[20] = ([7] - [8]) / [10].

[21] = [10] / [12].

[16] = [9] / ([4] + [7]).

[REDACTED]

From internal Company projections.



**EXHIBIT RJM-5B**

**DPL INC. PRO FORMA FINANCIAL RATIOS, 2020–2023  
MRO WITHOUT FIC**

Description	2020	2021	2022	2023	Average
[1] Financial Integrity Charge	-	-	-	-	-
[2] Total Revenue					
[3] Operating EBITDA					
[4] Interest Expense					
[5] Capital expenditures					
[6] Net Cash Provided by Operating Activities					
[7] CFO Pre-WC					
[8] Dividends Paid to AES Corp					
[9] Total Financial Debt					
[10] Total Debt (Moody's Definition)					
[11] Shareholder's Equity					
[12] Total Capitalization					
[13] Revolver Capacity (Overdraw)					
[14] Debt/Operating EBITDA					
[15] Operating EBITDA/Interest					
[16] FFO-adjusted Leverage (Fitch)					
[17] Leverage					
[18] Interest Coverage					
[19] CFO/Debt					
[20] Retained Cash Flow/Debt					
[21] Debt/Capital					

**EXHIBIT RJM-5B**

**DPL INC. PRO FORMA FINANCIAL RATIOS, 2020–2023  
MRO WITHOUT FIC**

Notes & Sources:

In thousands.

[7] = [6] + Increase (Decrease) in Working Capital, calculated from Exhibit RJM-37B.

[9] = Long-Term Debt + Current Portion of Long-Term Debt + Short Term Debt. From Exhibit RJM-37B.

[10] = [9] + Pension & Benefit, from Exhibit RJM-37B.

[11] From Exhibit RJM-37B.

[12] = [10] + [11] + Accumulated Deferred Income Taxes, from Exhibit RJM-37B.

[13] From Exhibit RJM-7.

[14] = [9] / [3].

[15] = [3] / [4].

[17] = ([9] / ([9] + [11])).

[18] = ([7] + [4]) / [4].

[19] = [7] / [10].

[20] = ([7] - [8]) / [10].

[21] = [10] / [12].

[16] = ([7] / ([4] + [9])).

[REDACTED]

From internal Company projections.

EXHIBIT RJM-6A

DP&L PRO FORMA CREDIT RATINGS, 2020–2023  
MRO WITHOUT FIC

Metric	2020	2021	2022	2023
[1] Total “Current Assets”				
[2] Total “Current Liabilities”				
[3] Working Capital				
[4] Increase (Decrease) in Working Capital				
[5] Long-Term Debt				
[6] Current Portion of Long-Term Debt				
[7] Short-Term Debt				
[8] Pension & Benefit				
<b>Implied Moody’s Rating – Regulated</b>				
<i>Factor 1: Regulatory Framework (25%)</i>				
A) Legislative and Judicial Underpinnings of the Regulatory Framework				
B) Consistency and Predictability of Regulation				
<i>Factor 2: Ability to Recover Costs and Earn Returns (25%)</i>				
A) Timeliness of Recovery of Operating and Capital Costs				
B) Sufficiency of Rates and Returns				
<i>Factor 3: Diversification (10%)</i>				
A) Market Position				
B) Generation and Fuel Diversity				
<i>Factor 4: Financial Strength (40%)</i>				
A) Interest Coverage				
B) Cash Flow/Debt				
C) Retained Cash Flow/Debt				
D) Debt/Capital				
Weighted Average of Financial Strength Factors With 1 Notch Reduction				
Weighted Average of All Factors				
Indicated Rating (1 Notch Reduction)				
Current Rating				

**EXHIBIT RJM-6A**

**DP&L PRO FORMA CREDIT RATINGS, 2020–2023  
MRO WITHOUT FIC**

Notes & Sources:

In thousands.

[1] = Accounts Receivable + Inventory + General Taxes Applicable to Future Years + Regulatory Assets + Other Current Assets - Fixed.

From Exhibit RJM-36B.

[2] = Accounts Payable + Accrued Interest + Current Income Taxes Payable + General Taxes Payable + General Taxes Payable - Non-Current +  
Accumulated Deferred Income Taxes - Non-Current + Regulatory Liabilities. From Exhibit RJM-36B.

[3] = [1] - [2].

[5]-[8] From Exhibit RJM-36B.

[REDACTED]

From internal Company projections.

EXHIBIT RJM-6B

DPL INC. PRO FORMA CREDIT RATINGS, 2020–2023  
MRO WITHOUT FIC

Metric	12/31/2019	2020	2021	2022	2023
[1] Total “Current Assets”					
[2] Total “Current Liabilities”					
[3] Working Capital					
[4] Increase (Decrease) in Working Capital					
[5] Long-Term Debt					
[6] Current Portion of Long-Term Debt					
[7] Short-Term Debt					
[8] Pension & Benefit					
<b><u>Implied Moody’s Rating – Regulated</u></b>					
<i>Factor 1: Regulatory Framework (25%)</i>					
A) Legislative and Judicial Underpinnings of the Regulatory Framework					
B) Consistency and Predictability of Regulation					
<i>Factor 2: Ability to Recover Costs and Earn Returns (25%)</i>					
A) Timeliness of Recovery of Operating and Capital Costs					
B) Sufficiency of Rates and Returns					
<i>Factor 3: Diversification (10%)</i>					
A) Market Position					
B) Generation and Fuel Diversity					
<i>Factor 4: Financial Strength (40%)</i>					
A) Interest Coverage					
B) Cash Flow/Debt					
C) Retained Cash Flow/Debt					
D) Debt/Capital					
Weighted Average of Financial Strength Factors With 1 Notch Reduction					
Weighted Average of All Factors					
Indicated Rating (1 Notch Reduction)					
Current Rating					

**EXHIBIT RJM-6B**

**DPL INC. PRO FORMA CREDIT RATINGS, 2020–2023  
MRO WITHOUT FIC**

Notes & Sources:

In thousands.

[1] = Accounts Receivable + Inventory + General Taxes Applicable to Future Years + Regulatory Assets - Fixed + Other Current Assets - Fixed.  
From Exhibit RJM-37B.

[2] = Accounts Payable + Accrued Interest + Current Income Taxes Payable + General Taxes Payable + General Taxes Payable - Non-Current +  
Accumulated Deferred Income Taxes - Non-Current + Regulatory Liabilities. From Exhibit RJM-37B.

[3] = [1] - [2].

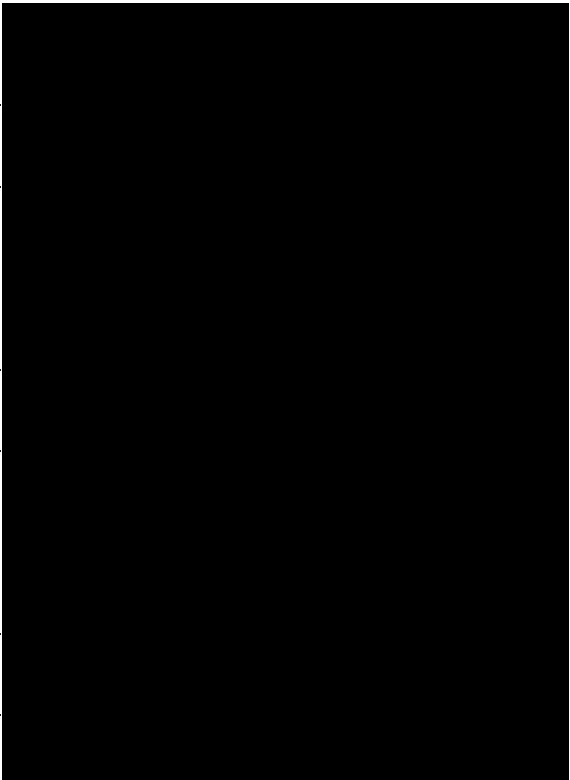
[5]-[8] From Exhibit RJM-37B.

[REDACTED]

From internal Company projections.

**EXHIBIT RJM-7**

**SUMMARY OF PRO FORMA DEBT ACTIVITY, 2019 – 2023  
MRO WITHOUT FIC**

	2020	2021	2022	2023
Debt Issued by DPL Inc.				
[1] New Issuance				
[2] Less: Paydown				
[3] Net Change in LT Debt				
[4] Net Revolver Draw (Paydown)				
[5] Net Change in Debt				
Debt Issued by DP&L				
[6] New Issuance				
[7] Less: Paydown				
[8] Net Change in LT Debt				
[9] Revolver Draw (Paydown)				
[10] Net Change in Debt				
DPL Inc. Consolidated Debt				
[11] New Issuance				
[12] Less: Paydown				
[13] Net Change in LT Debt				
[14] Revolver Draw (Paydown)				
[15] Net Change in Debt				

**EXHIBIT RJM-7**

**SUMMARY OF PRO FORMA DEBT ACTIVITY, 2019 – 2023  
MRO WITHOUT FIC**

	2020	2021	2022	2023
Revolvers				
[16] DPL Inc. Drawn Revolver				
[17] DPL Inc. Undrawn Revolver				
[18] Total DPL Inc. Revolver				
[19] DP&L Drawn Revolver				
[20] DP&L Undrawn Revolver				
[21] Total DP&L Revolver				
Cash				
[22] DPL Parent and Other Sub. Cash				
[23] DP&L Cash				
[24] DPL Inc. Consolidated Cash				
[25] Equity to DP&L				
[26] Dividend from DP&L				
[27] DPL Inc. Debt/Capital				

Notes & Sources:

In thousands.

- [18] [REDACTED]
- [27] From Exhibit RJM-5B.  
From internal Company projections.



**EXHIBIT RJM-8A**

**CALCULATION OF FINANCIAL INTEGRITY CHARGE**

**MRO** [REDACTED]

	<u>Total</u>	<u>Annual</u>
[1] Foregone Equity	[REDACTED]	
[2] Pre-Tax Equivalent		
[3] RSC		
[4] Financial Integrity Charge		

Notes & Sources:

In thousands.

[2] = [1] × 1.2751 gross revenue conversion factor.

[4] = [2] + [3].

From internal Company projections.

EXHIBIT RJM-8B

CALCULATION OF FINANCIAL INTEGRITY CHARGE  
MRO [REDACTED]

	2020	2021	2022	2023	Average
Direct Capex	[REDACTED]				
[1] Base Transmission and Distribution [REDACTED]					
[2] Transmission Growth [REDACTED]					
[3] Infrastructure Investment [REDACTED]					
[4] Total Direct Capex					
[5] DPL Inc. Interest Expense					
[6] Total					
[7] Operating Cash Flow under ESP					
[8] Less: After-Tax RSC					
[9] Available Cash Flow					
[10] Cash Flow Shortfall (pre-tax)					
[11] Financial Integrity Charge					

Notes & Sources:

In thousands.

[2] [REDACTED] of total transmission growth.

[3] [REDACTED] of total infrastructure investment.

[4] = [1] + [2] + [3].

[7] Excludes IIR and assumes \$150 million equity contribution in 2020.

[10] = [6] - [9].

[11] = [10] × 1.2751 Gross Revenue Conversion Factor.

From internal Company projections.

**EXHIBIT RJM-9A**

**DP&L PRO FORMA FINANCIAL RATIOS, 2020–2023**

**MRO** [REDACTED]

Description	2020	2021	2022	2023	Average
[1] Financial Integrity Charge	[REDACTED]				
[2] Total Revenue					
[3] Operating EBITDA					
[4] Interest Expense					
[5] Capital expenditures					
[6] Net Cash Provided by Operating Activities					
[7] CFO Pre-WC					
[8] Dividend Paid to Parent					
[9] Total Financial Debt					
[10] Total Debt (Moody's Definition)					
[11] Shareholder's Equity					
[12] Total Capitalization (Moody's Definition)					
[13] Revolver Capacity (Overdraw)					
[14] Debt/Operating EBITDA					
[15] Operating EBITDA/Interest					
[16] FFO-Adjusted Leverage (Fitch)					
[17] Leverage					
[18] Interest Coverage					
[19] CFO/Debt					
[20] Retained Cash Flow/Debt					
[21] Debt/Capital (Moody's Definition)					

**EXHIBIT RJM-9A**

**DP&L PRO FORMA FINANCIAL RATIOS, 2020–2023**  
**MRO [REDACTED]**

Notes & Sources:

In thousands.

[7] = [6] + Increase (Decrease) in Working Capital, calculated from Exhibit RJM-38B.

[9] = Long-Term Debt + Current Portion of Long-Term Debt + Short Term Debt. From Exhibit RJM-38B.

[10] = [9] + Pension & Benefit, from Exhibit RJM-38B.

[11] Calculated as Total Common Shareholder's Equity plus Preferred Stock, from Exhibit RJM-38B.

[12] = [10] + [11] + Accumulated Deferred Income Taxes, from Exhibit RJM-38B.

[13] From Exhibit RJM-11.

[14] = [9] / [3].

[15] = [3] / [4].

[17] = [9] / ([9] + [11]).

[18] = ([7] + [4]) / [4].

[19] = [7] / [10].

[20] = ([7] - [8]) / [10].

[21] = [10] / [12].

[16] = [9] / ([4] + [7]).

[REDACTED]

From internal Company projections.

**EXHIBIT RJM-9B**

**DPL INC. PRO FORMA FINANCIAL RATIOS, 2020–2023**

**MRO** [REDACTED]

Description	2020	2021	2022	2023	Average
[1] Financial Integrity Charge	[REDACTED]				
[2] Total Revenue					
[3] Operating EBITDA					
[4] Interest Expense					
[5] Capital expenditures					
[6] Net Cash Provided by Operating Activities					
[7] CFO Pre-WC					
[8] Dividends Paid to AES Corp					
[9] Total Financial Debt					
[10] Total Debt (Moody's Definition)					
[11] Shareholder's Equity					
[12] Total Capitalization					
[13] Revolver Capacity (Overdraw)					
[14] Debt/Operating EBITDA					
[15] Operating EBITDA/Interest					
[16] FFO-adjusted Leverage (Fitch)					
[17] Leverage					
[18] Interest Coverage					
[19] CFO/Debt					
[20] Retained Cash Flow/Debt					
[21] Debt/Capital					

**EXHIBIT RJM-9B**

**DPL INC. PRO FORMA FINANCIAL RATIOS, 2020–2023**  
**MRO [REDACTED]**

Notes & Sources:

In thousands.

[7] = [6] + Increase (Decrease) in Working Capital, calculated from Exhibit RJM-39B.

[9] = Long-Term Debt + Current Portion of Long-Term Debt + Short Term Debt. From Exhibit RJM-39B.

[10] = [9] + Pension & Benefit, from Exhibit RJM-39B.

[11] From Exhibit RJM-39B.

[12] = [10] + [11] + Accumulated Deferred Income Taxes, from Exhibit RJM-39B.

[13] From Exhibit RJM-11.

[14] = [9] / [3].

[15] = [3] / [4].

[17] = ([9] / ([9] + [11])).

[18] = ([7] + [4]) / [4].

[19] = [7] / [10].

[20] = ([7] - [8]) / [10].

[21] = [10] / [12].

[16] = ([7] / ([4] + [9])).

[REDACTED]

From internal Company projections.

EXHIBIT RJM-10A

DP&L PRO FORMA CREDIT RATINGS, 2020–2023

MRO [REDACTED]

Metric	2020	2021	2022	2023
[1] Total “Current Assets”	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[2] Total “Current Liabilities”				
[3] Working Capital				
[4] Increase (Decrease) in Working Capital				
[5] Long-Term Debt				
[6] Current Portion of Long-Term Debt				
[7] Short-Term Debt				
[8] Pension & Benefit				
<b>Implied Moody’s Rating – Regulated</b>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<i>Factor 1: Regulatory Framework (25%)</i>				
A) Legislative and Judicial Underpinnings of the Regulatory Framework				
B) Consistency and Predictability of Regulation				
<i>Factor 2: Ability to Recover Costs and Earn Returns (25%)</i>				
A) Timeliness of Recovery of Operating and Capital Costs				
B) Sufficiency of Rates and Returns				
<i>Factor 3: Diversification (10%)</i>				
A) Market Position				
B) Generation and Fuel Diversity				
<i>Factor 4: Financial Strength (40%)</i>				
A) Interest Coverage				
B) Cash Flow/Debt				
C) Retained Cash Flow/Debt				
D) Debt/Capital				
Weighted Average of Financial Strength Factors With 1 Notch Reduction				
Weighted Average of All Factors				
Indicated Rating (1 Notch Reduction)				
Current Rating				

**EXHIBIT RJM-10A**

**DP&L PRO FORMA CREDIT RATINGS, 2020–2023**

**MRO** [REDACTED]

Notes & Sources:

In thousands.

[1] = Accounts Receivable + Inventory + General Taxes Applicable to Future Years + Regulatory Assets + Other Current Assets - Fixed.

From Exhibit RJM-38B.

[2] = Accounts Payable + Accrued Interest + Current Income Taxes Payable + General Taxes Payable + General Taxes Payable - Non-Current + Accumulated Deferred Income Taxes - Non-Current + Regulatory Liabilities. From Exhibit RJM-38B.

[3] = [1] - [2].

[5]-[8] From Exhibit RJM-38B.

[REDACTED]

From internal Company projections.



EXHIBIT RJM-10B

DPL INC. PRO FORMA CREDIT RATINGS, 2020–2023

MRO [REDACTED]

Metric	12/31/2019	2020	2021	2022	2023
[1] Total “Current Assets”	[REDACTED]				
[2] Total “Current Liabilities”					
[3] Working Capital					
[4] Increase (Decrease) in Working Capital					
[5] Long-Term Debt					
[6] Current Portion of Long-Term Debt					
[7] Short-Term Debt					
[8] Pension & Benefit					
<b><u>Implied Moody’s Rating – Regulated</u></b>	[REDACTED]				
<i>Factor 1: Regulatory Framework (25%)</i>					
A) Legislative and Judicial Underpinnings of the Regulatory Framework					
B) Consistency and Predictability of Regulation					
<i>Factor 2: Ability to Recover Costs and Earn Returns (25%)</i>					
A) Timeliness of Recovery of Operating and Capital Costs					
B) Sufficiency of Rates and Returns					
<i>Factor 3: Diversification (10%)</i>					
A) Market Position					
B) Generation and Fuel Diversity					
<i>Factor 4: Financial Strength (40%)</i>					
A) Interest Coverage					
B) Cash Flow/Debt					
C) Retained Cash Flow/Debt					
D) Debt/Capital					
Weighted Average of Financial Strength Factors With 1 Notch Reduction					
Weighted Average of All Factors					
Indicated Rating (1 Notch Reduction)					
Current Rating					

**EXHIBIT RJM-10B**

**DPL INC. PRO FORMA CREDIT RATINGS, 2020–2023**

**MRO** [REDACTED]

Notes & Sources:

In thousands.

[1] = Accounts Receivable + Inventory + General Taxes Applicable to Future Years + Regulatory Assets - Fixed + Other Current Assets - Fixed.  
From Exhibit RJM-39B.

[2] = Accounts Payable + Accrued Interest + Current Income Taxes Payable + General Taxes Payable + General Taxes Payable - Non-Current +  
Accumulated Deferred Income Taxes - Non-Current + Regulatory Liabilities. From Exhibit RJM-39B.

[3] = [1] - [2].

[5]-[8] From Exhibit RJM-39B.

[REDACTED]

From internal Company projections.

**EXHIBIT RJM-11**

**SUMMARY OF PRO FORMA DEBT ACTIVITY, 2019 – 2023**  
**MRO [REDACTED]**

	2020	2021	2022	2023
Debt Issued by DPL Inc.				
[1] New Issuance				
[2] Less: Paydown				
[3] Net Change in LT Debt				
[4] Net Revolver Draw (Paydown)				
[5] Net Change in Debt				
Debt Issued by DP&L				
[6] New Issuance				
[7] Less: Paydown				
[8] Net Change in LT Debt				
[9] Revolver Draw (Paydown)				
[10] Net Change in Debt				
DPL Inc. Consolidated Debt				
[11] New Issuance				
[12] Less: Paydown				
[13] Net Change in LT Debt				
[14] Revolver Draw (Paydown)				
[15] Net Change in Debt				

**EXHIBIT RJM-11**

**SUMMARY OF PRO FORMA DEBT ACTIVITY, 2019 – 2023**

**MRO** [REDACTED]

	2020	2021	2022	2023
Revolvers	[REDACTED]			
[16] DPL Inc. Drawn Revolver				
[17] DPL Inc. Undrawn Revolver				
[18] Total DPL Inc. Revolver				
[19] DP&L Drawn Revolver				
[20] DP&L Undrawn Revolver				
[21] Total DP&L Revolver				
Cash				
[22] DPL Parent and Other Sub. Cash				
[23] DP&L Cash				
[24] DPL Inc. Consolidated Cash				
[25] Equity to DP&L				
[26] Dividend from DP&L				
[27] DPL Inc. Debt/Capital				

Notes & Sources:

In thousands.

- [18] [REDACTED]
- [27] From Exhibit RJM-9B.  
From internal Company projections.

**EXHIBIT RJM-12A**

**DP&L PRO FORMA FINANCIAL RATIOS, 2020–2023**

**MRO** [REDACTED]

Description	2020	2021	2022	2023	Average
[1] Financial Integrity Charge	[REDACTED]				
[2] Total Revenue					
[3] Operating EBITDA					
[4] Interest Expense					
[5] Capital expenditures					
[6] Net Cash Provided by Operating Activities					
[7] CFO Pre-WC					
[8] Dividend Paid to Parent					
[9] Total Financial Debt					
[10] Total Debt (Moody's Definition)					
[11] Shareholder's Equity					
[12] Total Capitalization (Moody's Definition)					
[13] Revolver Capacity (Overdraw)					
[14] Debt/Operating EBITDA					
[15] Operating EBITDA/Interest					
[16] FFO-Adjusted Leverage (Fitch)					
[17] Leverage					
[18] Interest Coverage					
[19] CFO/Debt					
[20] Retained Cash Flow/Debt					
[21] Debt/Capital (Moody's Definition)					

**EXHIBIT RJM-12A**

**DP&L PRO FORMA FINANCIAL RATIOS, 2020–2023**  
**MRO** [REDACTED]

Notes & Sources:

In thousands.

[7] = [6] + Increase (Decrease) in Working Capital, calculated from Exhibit RJM-40B.

[9] = Long-Term Debt + Current Portion of Long-Term Debt + Short Term Debt. From Exhibit RJM-40B.

[10] = [9] + Pension & Benefit, from Exhibit RJM-40B.

[11] Calculated as Total Common Shareholder's Equity plus Preferred Stock, from Exhibit RJM-40B.

[12] = [10] + [11] + Accumulated Deferred Income Taxes, from Exhibit RJM-40B.

[13] From Exhibit RJM-14.

[14] = [9] / [3].

[15] = [3] / [4].

[17] = [9] / ([9] + [11]).

[18] = ([7] + [4]) / [4].

[19] = [7] / [10].

[20] = ([7] - [8]) / [10].

[21] = [10] / [12].

[16] = [9] / ([4] + [7]).

[REDACTED]

From internal Company projections.

**EXHIBIT RJM-12B**

**DPL INC. PRO FORMA FINANCIAL RATIOS, 2020–2023**

**MRO** [REDACTED]

Description	2020	2021	2022	2023	Average
[1] Financial Integrity Charge	[REDACTED]				
[2] Total Revenue					
[3] Operating EBITDA					
[4] Interest Expense					
[5] Capital expenditures					
[6] Net Cash Provided by Operating Activities					
[7] CFO Pre-WC					
[8] Dividends Paid to AES Corp					
[9] Total Financial Debt					
[10] Total Debt (Moody's Definition)					
[11] Shareholder's Equity					
[12] Total Capitalization					
[13] Revolver Capacity (Overdraw)					
[14] Debt/Operating EBITDA					
[15] Operating EBITDA/Interest					
[16] FFO-adjusted Leverage (Fitch)					
[17] Leverage					
[18] Interest Coverage					
[19] CFO/Debt					
[20] Retained Cash Flow/Debt					
[21] Debt/Capital					

**EXHIBIT RJM-12B**

**DPL INC. PRO FORMA FINANCIAL RATIOS, 2020–2023**  
**MRO** [REDACTED]

Notes & Sources:

In thousands.

[7] = [6] + Increase (Decrease) in Working Capital, calculated from Exhibit RJM-41B.

[9] = Long-Term Debt + Current Portion of Long-Term Debt + Short Term Debt. From Exhibit RJM-41B.

[10] = [9] + Pension & Benefit, from Exhibit RJM-41B.

[11] From Exhibit RJM-41B.

[12] = [10] + [11] + Accumulated Deferred Income Taxes, from Exhibit RJM-41B.

[13] From Exhibit RJM-14.

[14] = [9] / [3].

[15] = [3] / [4].

[17] = ([9] / ([9] + [11])).

[18] = ([7] + [4]) / [4].

[19] = [7] / [10].

[20] = ([7] - [8]) / [10].

[21] = [10] / [12].

[16] = ([7] / ([4] + [9])).

[REDACTED]

From internal Company projections.



EXHIBIT RJM-13A

DP&L PRO FORMA CREDIT RATINGS, 2020–2023

MRO [REDACTED]

Metric	2020	2021	2022	2023
[1] Total “Current Assets”				
[2] Total “Current Liabilities”				
[3] Working Capital				
[4] Increase (Decrease) in Working Capital				
[5] Long-Term Debt				
[6] Current Portion of Long-Term Debt				
[7] Short-Term Debt				
[8] Pension & Benefit				
<b>Implied Moody’s Rating – Regulated</b>				
<i>Factor 1: Regulatory Framework (25%)</i>				
A) Legislative and Judicial Underpinnings of the Regulatory Framework				
B) Consistency and Predictability of Regulation				
<i>Factor 2: Ability to Recover Costs and Earn Returns (25%)</i>				
A) Timeliness of Recovery of Operating and Capital Costs				
B) Sufficiency of Rates and Returns				
<i>Factor 3: Diversification (10%)</i>				
A) Market Position				
B) Generation and Fuel Diversity				
<i>Factor 4: Financial Strength (40%)</i>				
A) Interest Coverage				
B) Cash Flow/Debt				
C) Retained Cash Flow/Debt				
D) Debt/Capital				
<hr/>				
Weighted Average of Financial Strength Factors				
With 1 Notch Reduction				
 Weighted Average of All Factors				
Indicated Rating (1 Notch Reduction)				
Current Rating				

**EXHIBIT RJM-13A**

**DP&L PRO FORMA CREDIT RATINGS, 2020–2023**

**MRO** [REDACTED]

Notes & Sources:

In thousands.

[1] = Accounts Receivable + Inventory + General Taxes Applicable to Future Years + Regulatory Assets + Other Current Assets - Fixed.

From Exhibit RJM-40B.

[2] = Accounts Payable + Accrued Interest + Current Income Taxes Payable + General Taxes Payable + General Taxes Payable - Non-Current + Accumulated Deferred Income Taxes - Non-Current + Regulatory Liabilities. From Exhibit RJM-40B.

[3] = [1] - [2].

[5]-[8] From Exhibit RJM-40B.

[REDACTED]

From internal Company projections.

EXHIBIT RJM-13B

DPL INC. PRO FORMA CREDIT RATINGS, 2020–2023

MRO [REDACTED]

Metric	12/31/2019	2020	2021	2022	2023
[1] Total “Current Assets”					
[2] Total “Current Liabilities”					
[3] Working Capital					
[4] Increase (Decrease) in Working Capital					
[5] Long-Term Debt					
[6] Current Portion of Long-Term Debt					
[7] Short-Term Debt					
[8] Pension & Benefit					
<b>Implied Moody’s Rating – Regulated</b>					
<i>Factor 1: Regulatory Framework (25%)</i>					
A) Legislative and Judicial Underpinnings of the Regulatory Framework					
B) Consistency and Predictability of Regulation					
<i>Factor 2: Ability to Recover Costs and Earn Returns (25%)</i>					
A) Timeliness of Recovery of Operating and Capital Costs					
B) Sufficiency of Rates and Returns					
<i>Factor 3: Diversification (10%)</i>					
A) Market Position					
B) Generation and Fuel Diversity					
<i>Factor 4: Financial Strength (40%)</i>					
A) Interest Coverage					
B) Cash Flow/Debt					
C) Retained Cash Flow/Debt					
D) Debt/Capital					
Weighted Average of Financial Strength Factors					
With 1 Notch Reduction					
Weighted Average of All Factors					
Indicated Rating (1 Notch Reduction)					
Current Rating					

**EXHIBIT RJM-13B**

**DPL INC. PRO FORMA CREDIT RATINGS, 2020–2023**

**MRO** [REDACTED]

Notes & Sources:

In thousands.

[1] = Accounts Receivable + Inventory + General Taxes Applicable to Future Years + Regulatory Assets - Fixed + Other Current Assets - Fixed.  
From Exhibit RJM-41B.

[2] = Accounts Payable + Accrued Interest + Current Income Taxes Payable + General Taxes Payable + General Taxes Payable - Non-Current +  
Accumulated Deferred Income Taxes - Non-Current + Regulatory Liabilities. From Exhibit RJM-41B.

[3] = [1] - [2].

[5]-[8] From Exhibit RJM-41B.

[REDACTED]

From internal Company projections.

**EXHIBIT RJM-14**

**SUMMARY OF PRO FORMA DEBT ACTIVITY, 2019 – 2023**  
**MRO [REDACTED]**

	2020	2021	2022	2023
Debt Issued by DPL Inc.	[REDACTED]			
[1] New Issuance				
[2] Less: Paydown				
[3] Net Change in LT Debt				
[4] Net Revolver Draw (Paydown)				
[5] Net Change in Debt				
Debt Issued by DP&L				
[6] New Issuance				
[7] Less: Paydown				
[8] Net Change in LT Debt				
[9] Revolver Draw (Paydown)				
[10] Net Change in Debt				
DPL Inc. Consolidated Debt	[REDACTED]			
[11] New Issuance				
[12] Less: Paydown				
[13] Net Change in LT Debt				
[14] Revolver Draw (Paydown)				
[15] Net Change in Debt				

**EXHIBIT RJM-14**

**SUMMARY OF PRO FORMA DEBT ACTIVITY, 2019 – 2023**

**MRO** [REDACTED]

	2020	2021	2022	2023
Revolvers	[REDACTED]			
[16] DPL Inc. Drawn Revolver				
[17] DPL Inc. Undrawn Revolver				
[18] Total DPL Inc. Revolver				
[19] DP&L Drawn Revolver				
[20] DP&L Undrawn Revolver				
[21] Total DP&L Revolver				
Cash				
[22] DPL Parent and Other Sub. Cash				
[23] DP&L Cash				
[24] DPL Inc. Consolidated Cash				
[25] Equity to DP&L				
[26] Dividend from DP&L				
[27] DPL Inc. Debt/Capital				

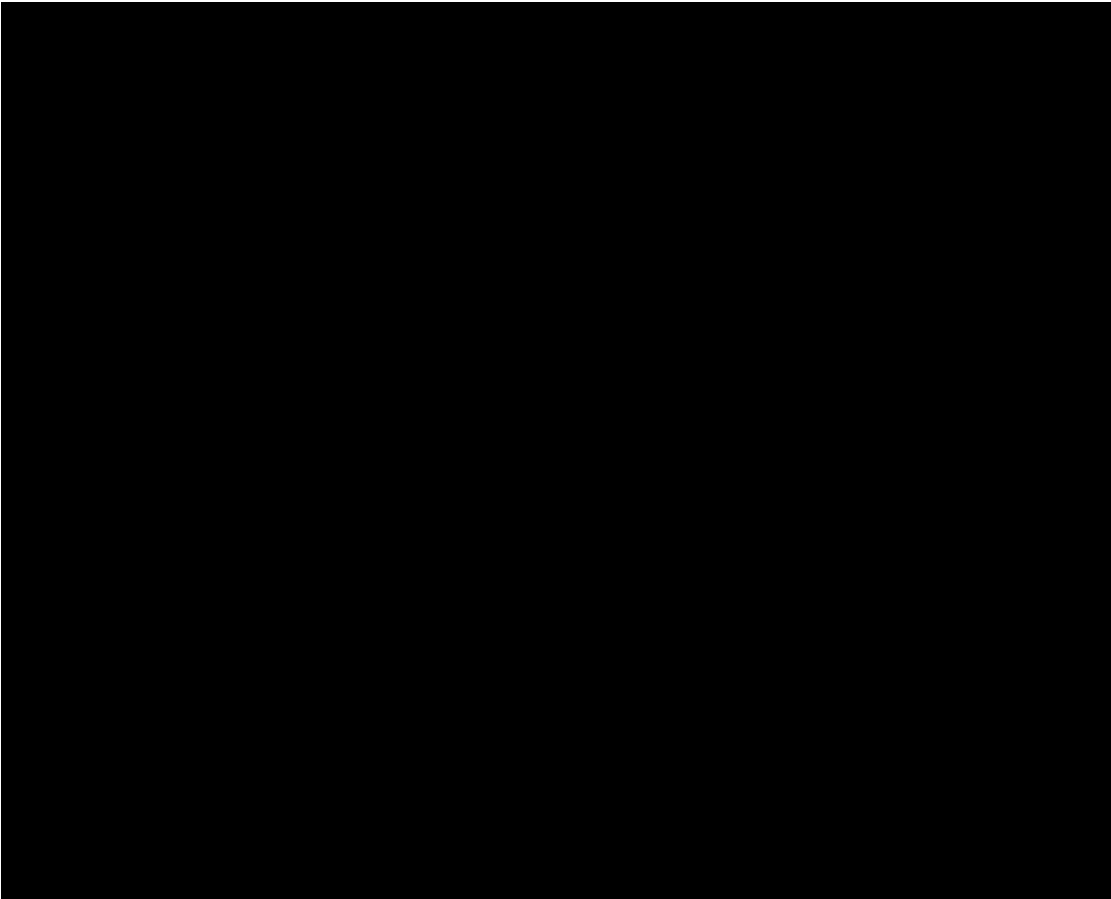
Notes & Sources:

In thousands.

- [18] [REDACTED]
- [27] From Exhibit RJM-12B.  
From internal Company projections.

**EXHIBIT RJM-15A**

**DP&L PRO FORMA FINANCIAL RATIOS, 2020–2023  
ESP WITH RSC**

Description	2020	2021	2022	2023	Average
[1] Rate Stabilization Charge					
[2] Total Revenue					
[3] Operating EBITDA					
[4] Interest Expense					
[5] Capital expenditures					
[6] Net Cash Provided by Operating Activities					
[7] CFO Pre-WC					
[8] Dividend Paid to Parent					
[9] Total Financial Debt					
[10] Total Debt (Moody's Definition)					
[11] Shareholder's Equity					
[12] Total Capitalization (Moody's Definition)					
[13] Revolver Capacity (Overdraw)					
[14] Debt/Operating EBITDA					
[15] Operating EBITDA/Interest					
[16] FFO-Adjusted Leverage (Fitch)					
[17] Leverage					
[18] Interest Coverage					
[19] CFO/Debt					
[20] Retained Cash Flow/Debt					
[21] Debt/Capital (Moody's Definition)					

**EXHIBIT RJM-15A**

**DP&L PRO FORMA FINANCIAL RATIOS, 2020–2023  
ESP WITH RSC**

Notes & Sources:

In thousands.

[7] = [6] + Increase (Decrease) in Working Capital, calculated from Exhibit RJM-42B.

[9] = Long-Term Debt + Current Portion of Long-Term Debt + Short Term Debt. From Exhibit RJM-42B.

[10] = [9] + Pension & Benefit, from Exhibit RJM-42B.

[11] Calculated as Total Common Shareholder's Equity plus Preferred Stock, from Exhibit RJM-42B.

[12] = [10] + [11] + Accumulated Deferred Income Taxes, from Exhibit RJM-42B.

[13] From Exhibit RJM-17.

[14] = [9] / [3].

[15] = [3] / [4].

[17] = [9] / ([9] + [11]).

[18] = ([7] + [4]) / [4].

[19] = [7] / [10].

[20] = ([7] - [8]) / [10].

[21] = [10] / [12].

[16] = [9] / ([4] + [7]).

From internal Company projections.



**EXHIBIT RJM-15B**

**DPL INC. PRO FORMA FINANCIAL RATIOS, 2020–2023  
ESP WITH RSC**

Description	2020	2021	2022	2023	Average
[1] Rate Stabilization Charge					
[2] Total Revenue					
[3] Operating EBITDA					
[4] Interest Expense					
[5] Capital expenditures					
[6] Net Cash Provided by Operating Activities					
[7] CFO Pre-WC					
[8] Dividends Paid to AES Corp					
[9] Total Financial Debt					
[10] Total Debt (Moody's Definition)					
[11] Shareholder's Equity					
[12] Total Capitalization					
[13] Revolver Capacity (Overdraw)					
[14] Debt/Operating EBITDA					
[15] Operating EBITDA/Interest					
[16] FFO-adjusted Leverage (Fitch)					
[17] Leverage					
[18] Interest Coverage					
[19] CFO/Debt					
[20] Retained Cash Flow/Debt					
[21] Debt/Capital					

**EXHIBIT RJM-15B**

**DPL INC. PRO FORMA FINANCIAL RATIOS, 2020–2023  
ESP WITH RSC**

Notes & Sources:

In thousands.

[7] = [6] + Increase (Decrease) in Working Capital, calculated from Exhibit RJM-43B.

[9] = Long-Term Debt + Current Portion of Long-Term Debt + Short Term Debt. From Exhibit RJM-43B.

[10] = [9] + Pension & Benefit, from Exhibit RJM-43B.

[11] From Exhibit RJM-43B.

[12] = [10] + [11] + Accumulated Deferred Income Taxes, from Exhibit RJM-43B.

[13] From Exhibit RJM-17.

[14] = [9] / [3].

[15] = [3] / [4].

[17] = ([9] / ([9] + [11])).

[18] = ([7] + [4]) / [4].

[19] = [7] / [10].

[20] = ([7] - [8]) / [10].

[21] = [10] / [12].

[16] = ([7] / ([4] + [9])).

[REDACTED]

From internal Company projections.

EXHIBIT RJM-16A

DP&L PRO FORMA CREDIT RATINGS, 2020–2023  
ESP WITH RSC

Metric	2020	2021	2022	2023
[1] Total “Current Assets”				
[2] Total “Current Liabilities”				
[3] Working Capital				
[4] Increase (Decrease) in Working Capital				
[5] Long-Term Debt				
[6] Current Portion of Long-Term Debt				
[7] Short-Term Debt				
[8] Pension & Benefit				
<b>Implied Moody’s Rating – Regulated</b>				
<i>Factor 1: Regulatory Framework (25%)</i>				
A) Legislative and Judicial Underpinnings of the Regulatory Framework				
B) Consistency and Predictability of Regulation				
<i>Factor 2: Ability to Recover Costs and Earn Returns (25%)</i>				
A) Timeliness of Recovery of Operating and Capital Costs				
B) Sufficiency of Rates and Returns				
<i>Factor 3: Diversification (10%)</i>				
A) Market Position				
B) Generation and Fuel Diversity				
<i>Factor 4: Financial Strength (40%)</i>				
A) Interest Coverage				
B) Cash Flow/Debt				
C) Retained Cash Flow/Debt				
D) Debt/Capital				
Weighted Average of Financial Strength Factors With 1 Notch Reduction				
Weighted Average of All Factors				
Indicated Rating (1 Notch Reduction)				
Current Rating				

**EXHIBIT RJM-16A**

**DP&L PRO FORMA CREDIT RATINGS, 2020–2023  
ESP WITH RSC**

Notes & Sources:

In thousands.

[1] = Accounts Receivable + Inventory + General Taxes Applicable to Future Years + Regulatory Assets + Other Current Assets - Fixed.

From Exhibit RJM-42B.

[2] = Accounts Payable + Accrued Interest + Current Income Taxes Payable + General Taxes Payable + General Taxes Payable - Non-Current +  
Accumulated Deferred Income Taxes - Non-Current + Regulatory Liabilities. From Exhibit RJM-42B.

[3] = [1] - [2].

[5]-[8] From Exhibit RJM-42B.

[REDACTED]

From internal Company projections.

EXHIBIT RJM-16B

DPL INC. PRO FORMA CREDIT RATINGS, 2020–2023  
ESP WITH RSC

Metric	12/31/2019	2020	2021	2022	2023
[1] Total “Current Assets”					
[2] Total “Current Liabilities”					
[3] Working Capital					
[4] Increase (Decrease) in Working Capital					
[5] Long-Term Debt					
[6] Current Portion of Long-Term Debt					
[7] Short-Term Debt					
[8] Pension & Benefit					
<b><u>Implied Moody’s Rating – Regulated</u></b>					
<i>Factor 1: Regulatory Framework (25%)</i>					
A) Legislative and Judicial Underpinnings of the Regulatory Framework					
B) Consistency and Predictability of Regulation					
<i>Factor 2: Ability to Recover Costs and Earn Returns (25%)</i>					
A) Timeliness of Recovery of Operating and Capital Costs					
B) Sufficiency of Rates and Returns					
<i>Factor 3: Diversification (10%)</i>					
A) Market Position					
B) Generation and Fuel Diversity					
<i>Factor 4: Financial Strength (40%)</i>					
A) Interest Coverage					
B) Cash Flow/Debt					
C) Retained Cash Flow/Debt					
D) Debt/Capital					
Weighted Average of Financial Strength Factors With 1 Notch Reduction					
Weighted Average of All Factors					
Indicated Rating (1 Notch Reduction)					
Current Rating					

**EXHIBIT RJM-16B**

**DPL INC. PRO FORMA CREDIT RATINGS, 2020–2023  
ESP WITH RSC**

Notes & Sources:

In thousands.

[1] = Accounts Receivable + Inventory + General Taxes Applicable to Future Years + Regulatory Assets - Fixed + Other Current Assets - Fixed.  
From Exhibit RJM-43B.

[2] = Accounts Payable + Accrued Interest + Current Income Taxes Payable + General Taxes Payable + General Taxes Payable - Non-Current +  
Accumulated Deferred Income Taxes - Non-Current + Regulatory Liabilities. From Exhibit RJM-43B.

[3] = [1] - [2].

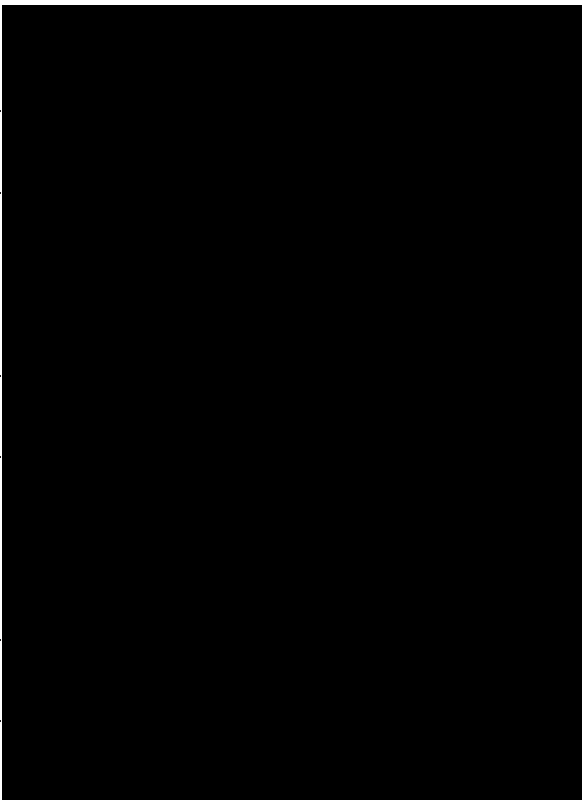
[5]-[8] From Exhibit RJM-43B.

[REDACTED]

From internal Company projections.

**EXHIBIT RJM-17**

**SUMMARY OF PRO FORMA DEBT ACTIVITY, 2019 – 2023  
ESP WITH RSC**

	2020	2021	2022	2023
Debt Issued by DPL Inc.				
[1] New Issuance				
[2] Less: Paydown				
[3] Net Change in LT Debt				
[4] Net Revolver Draw (Paydown)				
[5] Net Change in Debt				
Debt Issued by DP&L				
[6] New Issuance				
[7] Less: Paydown				
[8] Net Change in LT Debt				
[9] Revolver Draw (Paydown)				
[10] Net Change in Debt				
DPL Inc. Consolidated Debt				
[11] New Issuance				
[12] Less: Paydown				
[13] Net Change in LT Debt				
[14] Revolver Draw (Paydown)				
[15] Net Change in Debt				

**EXHIBIT RJM-17**

**SUMMARY OF PRO FORMA DEBT ACTIVITY, 2019 – 2023  
ESP WITH RSC**

	2020	2021	2022	2023
Revolvers				
[16] DPL Inc. Drawn Revolver				
[17] DPL Inc. Undrawn Revolver				
[18] Total DPL Inc. Revolver				
[19] DP&L Drawn Revolver				
[20] DP&L Undrawn Revolver				
[21] Total DP&L Revolver				
Cash				
[22] DPL Parent and Other Sub. Cash				
[23] DP&L Cash				
[24] DPL Inc. Consolidated Cash				
[25] Equity to DP&L				
[26] Dividend from DP&L				
[27] DPL Inc. Debt/Capital				

Notes & Sources:

In thousands.

- [18] [REDACTED]
- [27] From Exhibit RJM-15B.  
From internal Company projections.



**EXHIBIT RJM-18A**

**DP&L PRO FORMA FINANCIAL RATIOS, 2020–2023  
ESP WITHOUT RSC**

Description	2020	2021	2022	2023	Average
[1] Rate Stabilization Charge (\$0)	-	-	-	-	-
[2] Total Revenue					
[3] Operating EBITDA					
[4] Interest Expense					
[5] Capital expenditures					
[6] Net Cash Provided by Operating Activities					
[7] CFO Pre-WC					
[8] Dividend Paid to Parent					
[9] Total Financial Debt					
[10] Total Debt (Moody's Definition)					
[11] Shareholder's Equity					
[12] Total Capitalization (Moody's Definition)					
[13] Revolver Capacity (Overdraw)					
[14] Debt/Operating EBITDA					
[15] Operating EBITDA/Interest					
[16] FFO-Adjusted Leverage (Fitch)					
[17] Leverage					
[18] Interest Coverage					
[19] CFO/Debt					
[20] Retained Cash Flow/Debt					
[21] Debt/Capital (Moody's Definition)					

**EXHIBIT RJM-18A**

**DP&L PRO FORMA FINANCIAL RATIOS, 2020–2023  
ESP WITHOUT RSC**

Notes & Sources:

In thousands.

[7] = [6] + Increase (Decrease) in Working Capital, calculated from Exhibit RJM-44B.

[9] = Long-Term Debt + Current Portion of Long-Term Debt + Short Term Debt. From Exhibit RJM-44B.

[10] = [9] + Pension & Benefit, from Exhibit RJM-44B.

[11] Calculated as Total Common Shareholder's Equity plus Preferred Stock, from Exhibit RJM-44B.

[12] = [10] + [11] + Accumulated Deferred Income Taxes, from Exhibit RJM-44B.

[13] From Exhibit RJM-20.

[14] = [9] / [3].

[15] = [3] / [4].

[17] = [9] / ([9] + [11]).

[18] = ([7] + [4]) / [4].

[19] = [7] / [10].

[20] = ([7] - [8]) / [10].

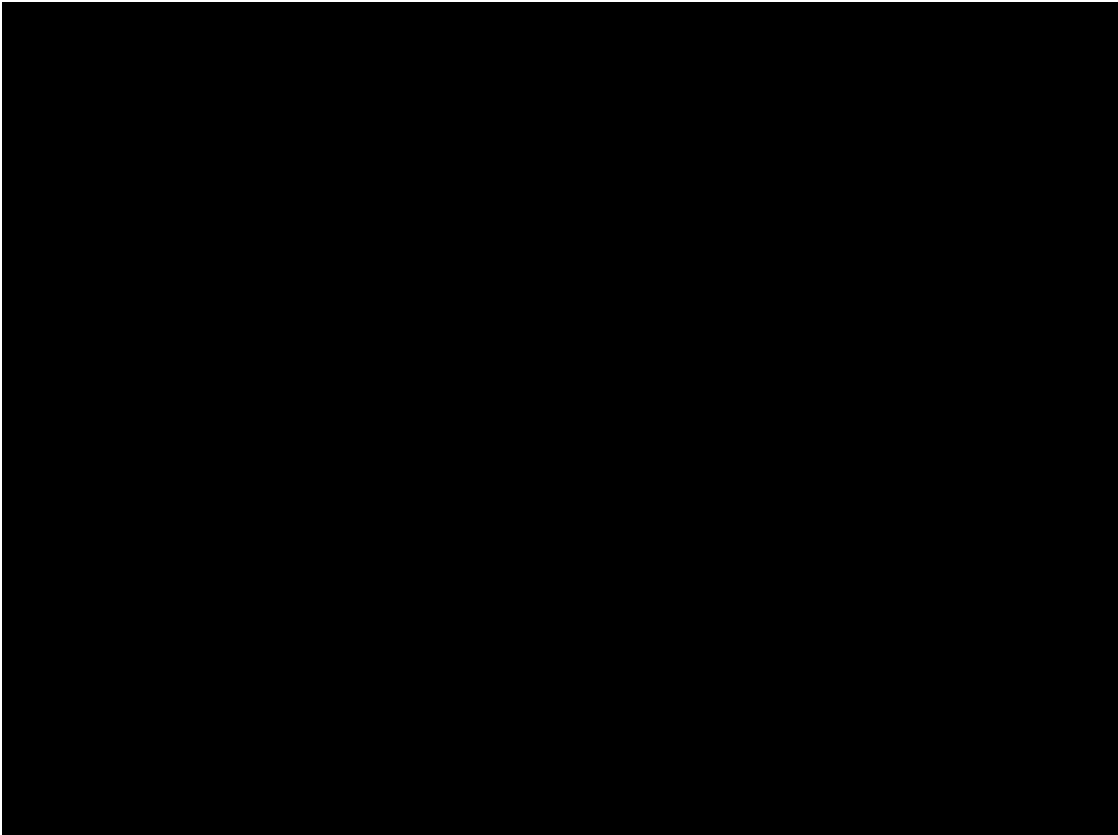
[21] = [10] / [12].

[16] = [9] / ([4] + [7]).

From internal Company projections.

**EXHIBIT RJM-18B**

**DPL INC. PRO FORMA FINANCIAL RATIOS, 2020–2023  
ESP WITHOUT RSC**

Description	2020	2021	2022	2023	Average
[1] Rate Stabilization Charge (\$0)	-	-	-	-	-
[2] Total Revenue					
[3] Operating EBITDA					
[4] Interest Expense					
[5] Capital expenditures					
[6] Net Cash Provided by Operating Activities					
[7] CFO Pre-WC					
[8] Dividends Paid to AES Corp					
[9] Total Financial Debt					
[10] Total Debt (Moody's Definition)					
[11] Shareholder's Equity					
[12] Total Capitalization					
[13] Revolver Capacity (Overdraw)					
[14] Debt/Operating EBITDA					
[15] Operating EBITDA/Interest					
[16] FFO-adjusted Leverage (Fitch)					
[17] Leverage					
[18] Interest Coverage					
[19] CFO/Debt					
[20] Retained Cash Flow/Debt					
[21] Debt/Capital					

**EXHIBIT RJM-18B**

**DPL INC. PRO FORMA FINANCIAL RATIOS, 2020–2023  
ESP WITHOUT RSC**

Notes & Sources:

In thousands.

[7] = [6] + Increase (Decrease) in Working Capital, calculated from Exhibit RJM-45B.

[9] = Long-Term Debt + Current Portion of Long-Term Debt + Short Term Debt. From Exhibit RJM-45B.

[10] = [9] + Pension & Benefit, from Exhibit RJM-45B.

[11] From Exhibit RJM-45B.

[12] = [10] + [11] + Accumulated Deferred Income Taxes, from Exhibit RJM-45B.

[13] From Exhibit RJM-20.

[14] = [9] / [3].

[15] = [3] / [4].

[17] = ([9] / ([9] + [11])).

[18] = ([7] + [4]) / [4].

[19] = [7] / [10].

[20] = ([7] - [8]) / [10].

[21] = [10] / [12].

[16] = ([7] / ([4] + [9])).

[REDACTED]

From internal Company projections.

EXHIBIT RJM-19A

DP&L PRO FORMA CREDIT RATINGS, 2020–2023  
ESP WITHOUT RSC

Metric	2020	2021	2022	2023
[1] Total “Current Assets”				
[2] Total “Current Liabilities”				
[3] Working Capital				
[4] Increase (Decrease) in Working Capital				
[5] Long-Term Debt				
[6] Current Portion of Long-Term Debt				
[7] Short-Term Debt				
[8] Pension & Benefit				
<b>Implied Moody’s Rating – Regulated</b>				
<i>Factor 1: Regulatory Framework (25%)</i>				
A) Legislative and Judicial Underpinnings of the Regulatory Framework				
B) Consistency and Predictability of Regulation				
<i>Factor 2: Ability to Recover Costs and Earn Returns (25%)</i>				
A) Timeliness of Recovery of Operating and Capital Costs				
B) Sufficiency of Rates and Returns				
<i>Factor 3: Diversification (10%)</i>				
A) Market Position				
B) Generation and Fuel Diversity				
<i>Factor 4: Financial Strength (40%)</i>				
A) Interest Coverage				
B) Cash Flow/Debt				
C) Retained Cash Flow/Debt				
D) Debt/Capital				
Weighted Average of Financial Strength Factors With 2 Notch Reduction				
Weighted Average of All Factors				
Indicated Rating (2 Notch Reduction)				
Current Rating				

**EXHIBIT RJM-19A**

**DP&L PRO FORMA CREDIT RATINGS, 2020–2023  
ESP WITHOUT RSC**

Notes & Sources:

In thousands.

[1] = Accounts Receivable + Inventory + General Taxes Applicable to Future Years + Regulatory Assets + Other Current Assets - Fixed.

From Exhibit RJM-44B.

[2] = Accounts Payable + Accrued Interest + Current Income Taxes Payable + General Taxes Payable + General Taxes Payable - Non-Current +  
Accumulated Deferred Income Taxes - Non-Current + Regulatory Liabilities. From Exhibit RJM-44B.

[3] = [1] - [2].

[5]-[8] From Exhibit RJM-44B.

[REDACTED]

From internal Company projections.

EXHIBIT RJM-19B

DPL INC. PRO FORMA CREDIT RATINGS, 2020–2023  
ESP WITHOUT RSC

Metric	12/31/2019	2020	2021	2022	2023
[1] Total “Current Assets”					
[2] Total “Current Liabilities”					
[3] Working Capital					
[4] Increase (Decrease) in Working Capital					
[5] Long-Term Debt					
[6] Current Portion of Long-Term Debt					
[7] Short-Term Debt					
[8] Pension & Benefit					
<b><u>Implied Moody’s Rating – Regulated</u></b>					
<i>Factor 1: Regulatory Framework (25%)</i>					
A) Legislative and Judicial Underpinnings of the Regulatory Framework					
B) Consistency and Predictability of Regulation					
<i>Factor 2: Ability to Recover Costs and Earn Returns (25%)</i>					
A) Timeliness of Recovery of Operating and Capital Costs					
B) Sufficiency of Rates and Returns					
<i>Factor 3: Diversification (10%)</i>					
A) Market Position					
B) Generation and Fuel Diversity					
<i>Factor 4: Financial Strength (40%)</i>					
A) Interest Coverage					
B) Cash Flow/Debt					
C) Retained Cash Flow/Debt					
D) Debt/Capital					
Weighted Average of Financial Strength Factors With 2 Notch Reduction					
Weighted Average of All Factors					
Indicated Rating (2 Notch Reduction)					
Current Rating					

**EXHIBIT RJM-19B**

**DPL INC. PRO FORMA CREDIT RATINGS, 2020–2023  
ESP WITHOUT RSC**

Notes & Sources:

In thousands.

[1] = Accounts Receivable + Inventory + General Taxes Applicable to Future Years + Regulatory Assets - Fixed + Other Current Assets - Fixed.  
From Exhibit RJM-45B.

[2] = Accounts Payable + Accrued Interest + Current Income Taxes Payable + General Taxes Payable + General Taxes Payable - Non-Current +  
Accumulated Deferred Income Taxes - Non-Current + Regulatory Liabilities. From Exhibit RJM-45B.

[3] = [1] - [2].

[5]-[8] From Exhibit RJM-45B.

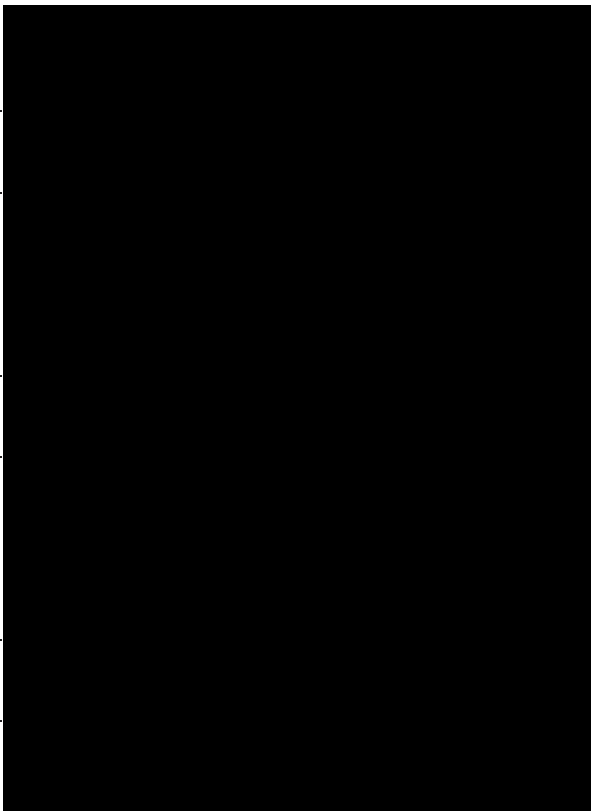
[REDACTED]

From internal Company projections.



**EXHIBIT RJM-20**

**SUMMARY OF PRO FORMA DEBT ACTIVITY, 2019 – 2023  
ESP WITHOUT RSC**

	2020	2021	2022	2023
Debt Issued by DPL Inc.				
[1] New Issuance				
[2] Less: Paydown				
[3] Net Change in LT Debt				
[4] Net Revolver Draw (Paydown)				
[5] Net Change in Debt				
Debt Issued by DP&L				
[6] New Issuance				
[7] Less: Paydown				
[8] Net Change in LT Debt				
[9] Revolver Draw (Paydown)				
[10] Net Change in Debt				
DPL Inc. Consolidated Debt				
[11] New Issuance				
[12] Less: Paydown				
[13] Net Change in LT Debt				
[14] Revolver Draw (Paydown)				
[15] Net Change in Debt				

**EXHIBIT RJM-20**

**SUMMARY OF PRO FORMA DEBT ACTIVITY, 2019 – 2023  
ESP WITHOUT RSC**

	2020	2021	2022	2023
Revolvers				
[16] DPL Inc. Drawn Revolver				
[17] DPL Inc. Undrawn Revolver				
[18] Total DPL Inc. Revolver				
[19] DP&L Drawn Revolver				
[20] DP&L Undrawn Revolver				
[21] Total DP&L Revolver				
Cash				
[22] DPL Parent and Other Sub. Cash				
[23] DP&L Cash				
[24] DPL Inc. Consolidated Cash				
[25] Equity to DP&L				
[26] Dividend from DP&L				
[27] DPL Inc. Debt/Capital				

Notes & Sources:

In thousands.

- [18] [REDACTED]
- [27] From Exhibit RJM-18B.  
From internal Company projections.

**EXHIBIT RJM-21**

**SUMMARY OF CAPEX, SAIDI, AND SAIFI  
DP&L AND PEER ELECTRIC UTILITIES**

	DP&L	Peer Sample							Companies	Observations	TD Without Gas
	Mean	Mean	SD	Min	P25	Median	P75	Max			Companies
Average Lagged CapEx per MWh	\$10.29	\$28.17	\$25.50	\$3.48	\$15.23	\$23.16	\$33.30	\$260.31	64	345	15
SAIDI	98.34	131.17	89.32	-	76.00	108.29	159.93	544.90	64	345	15
SAIFI	0.85	1.08	0.44	-	0.79	1.01	1.26	2.47	64	345	15

Notes & Sources:

CapEx per MWh calculated as the average of the prior three years' annual capital expenditures, where each year's capital expenditures are first divided by that year's total sales of electricity volume (MWh).

Peer Sample includes companies in the EEI Members List.

Companies denotes the unique count of companies.

Observations denotes the count of data points from 2012–2018.

TD without Gas Companies denotes the count of DP&L and peer sample companies with Electric Transmission and Electric Distribution, but without Electric Generation and/or Gas Distribution. From Standard and Poor's Global Market Intelligence.

Includes companies for which CapEx, Total Sales of Electricity Volume (MWh), SAIDI, and SAIFI were available for a given year's calculation.

Companies chosen based on Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

CapEx and Total Sales of Electricity Volume (MWh) from Standard and Poor's Global Market Intelligence.

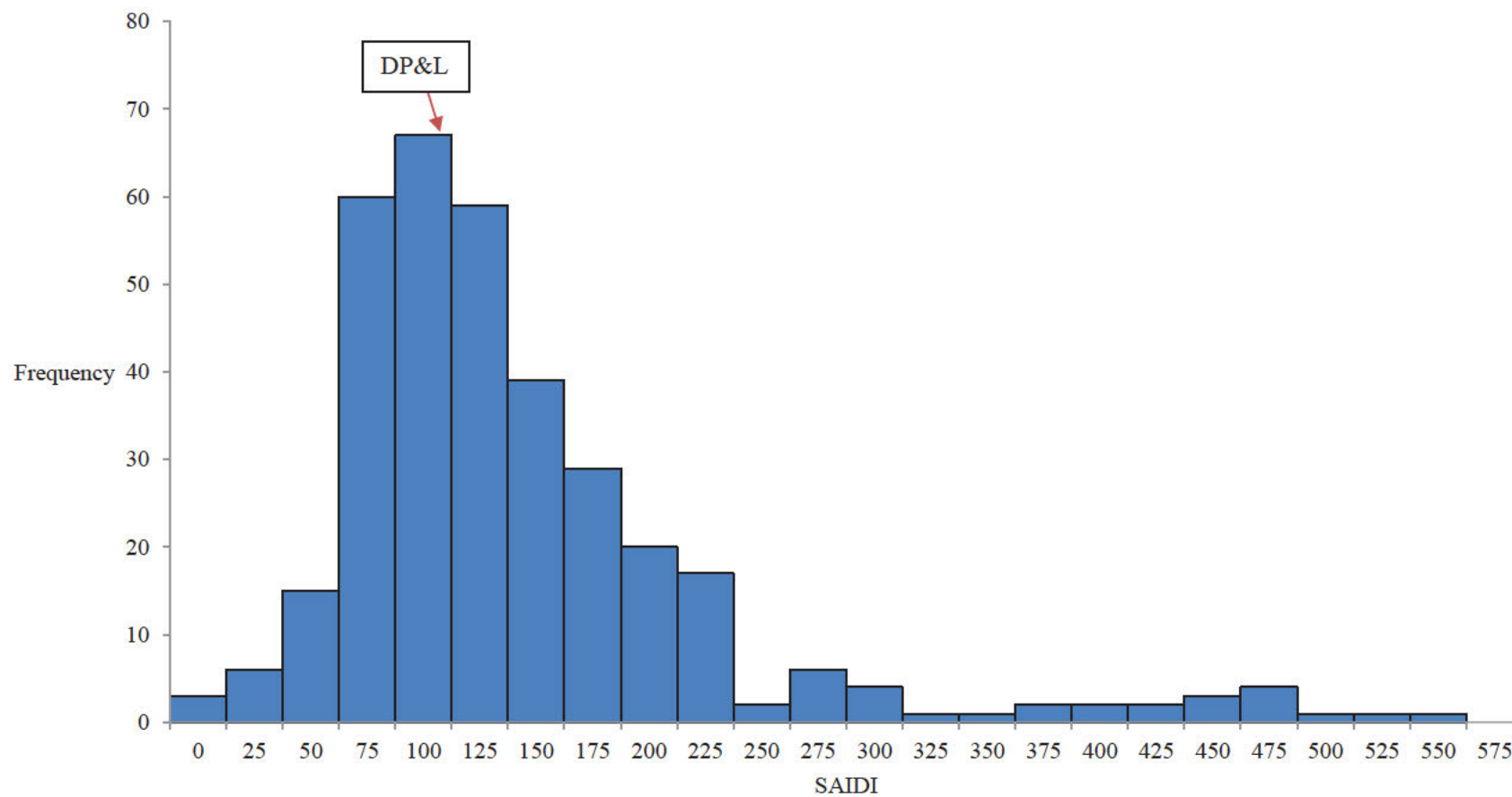
SAIDI and SAIFI data from Energy Information Administration (EIA) form 861 data. Values are without major event days.

**EXHIBIT RJM-22A**

**SAIDI HISTOGRAMS**

**DP&L AND PEER ELECTRIC UTILITIES**

**2013–2018**

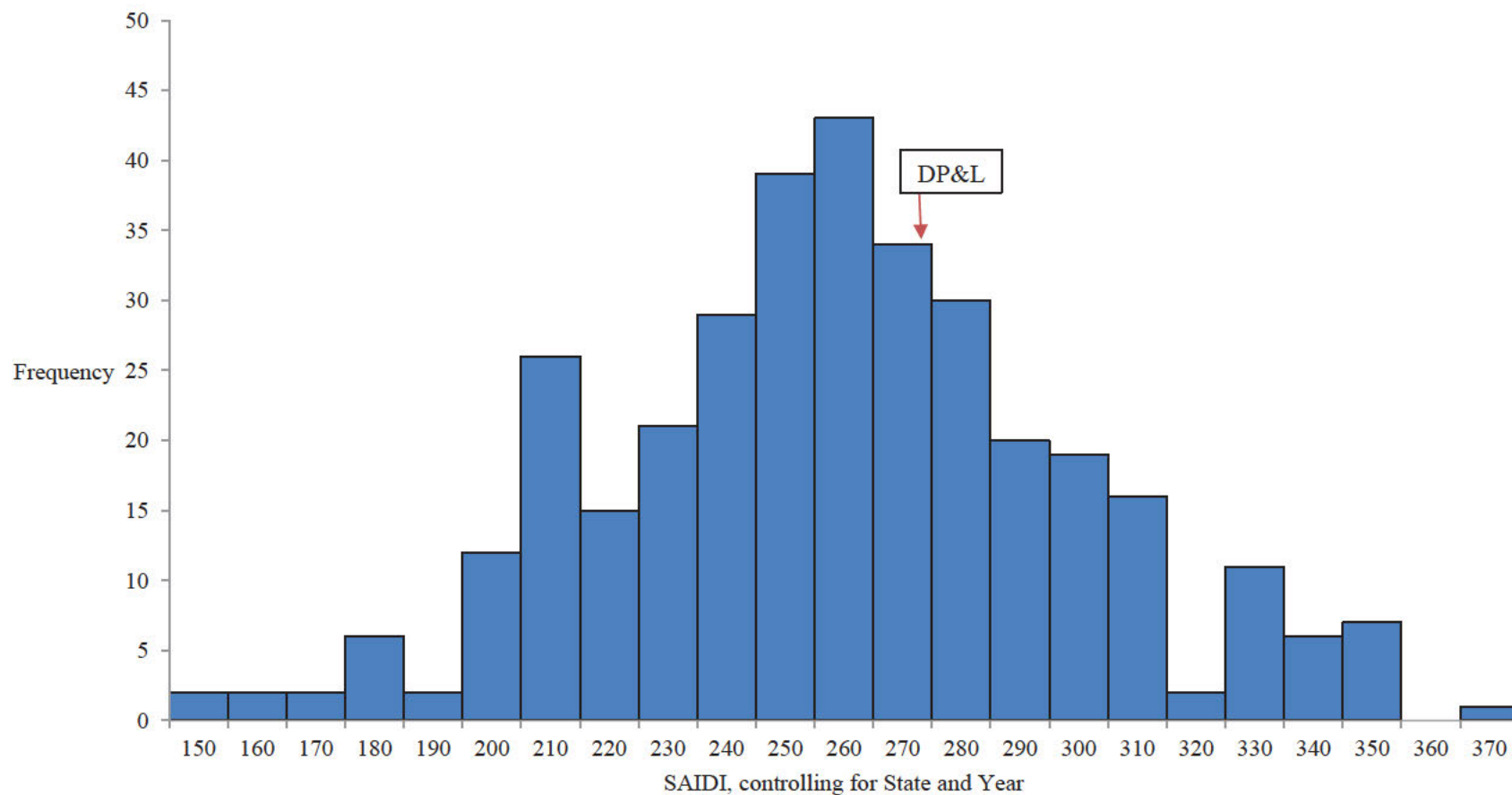


**EXHIBIT RJM-22A**

**SAIDI HISTOGRAMS**

**DP&L AND PEER ELECTRIC UTILITIES**

**2013–2018**



**EXHIBIT RJM-22A**  
**SAIDI HISTOGRAMS**  
**DP&L AND PEER ELECTRIC UTILITIES**  
**2013–2018**

Notes & Sources:

Includes yearly observations of SAIDI for the companies in the Edison Electric Institute.

SAIDI controlling for State and Year calculated as the residuals of a regression of SAIDI on state and year dummies plus the intercept of a regression of SAIDI on state and year dummies.

Includes companies for which CapEx, Total Sales of Electricity Volume (MwH), and SAIDI were available for a given year's calculation.

Companies chosen based on Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

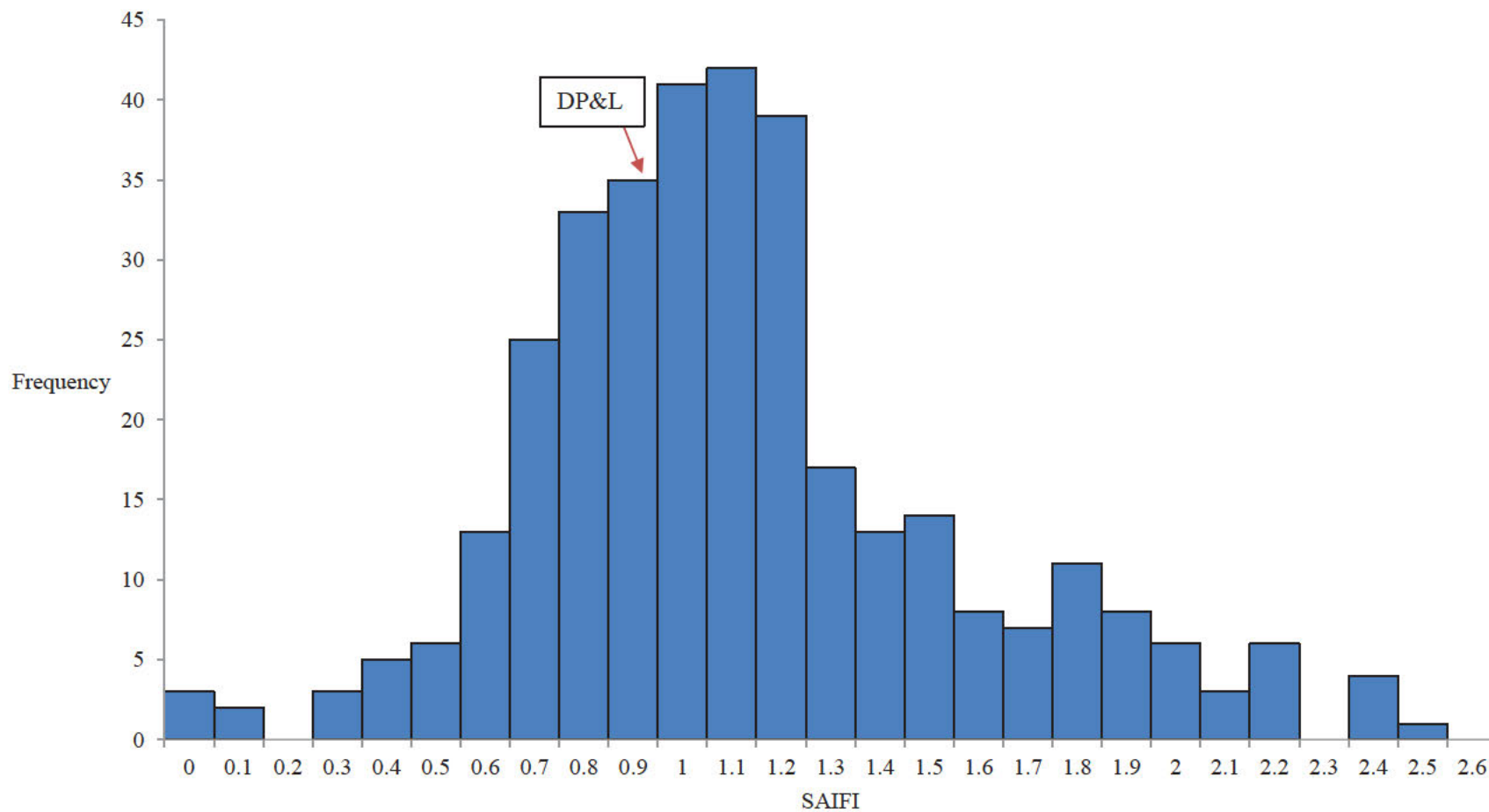
SAIDI data from Energy Information Administration (EIA) form 861 data. Values are in minutes and without major event days.

**EXHIBIT RJM-22B**

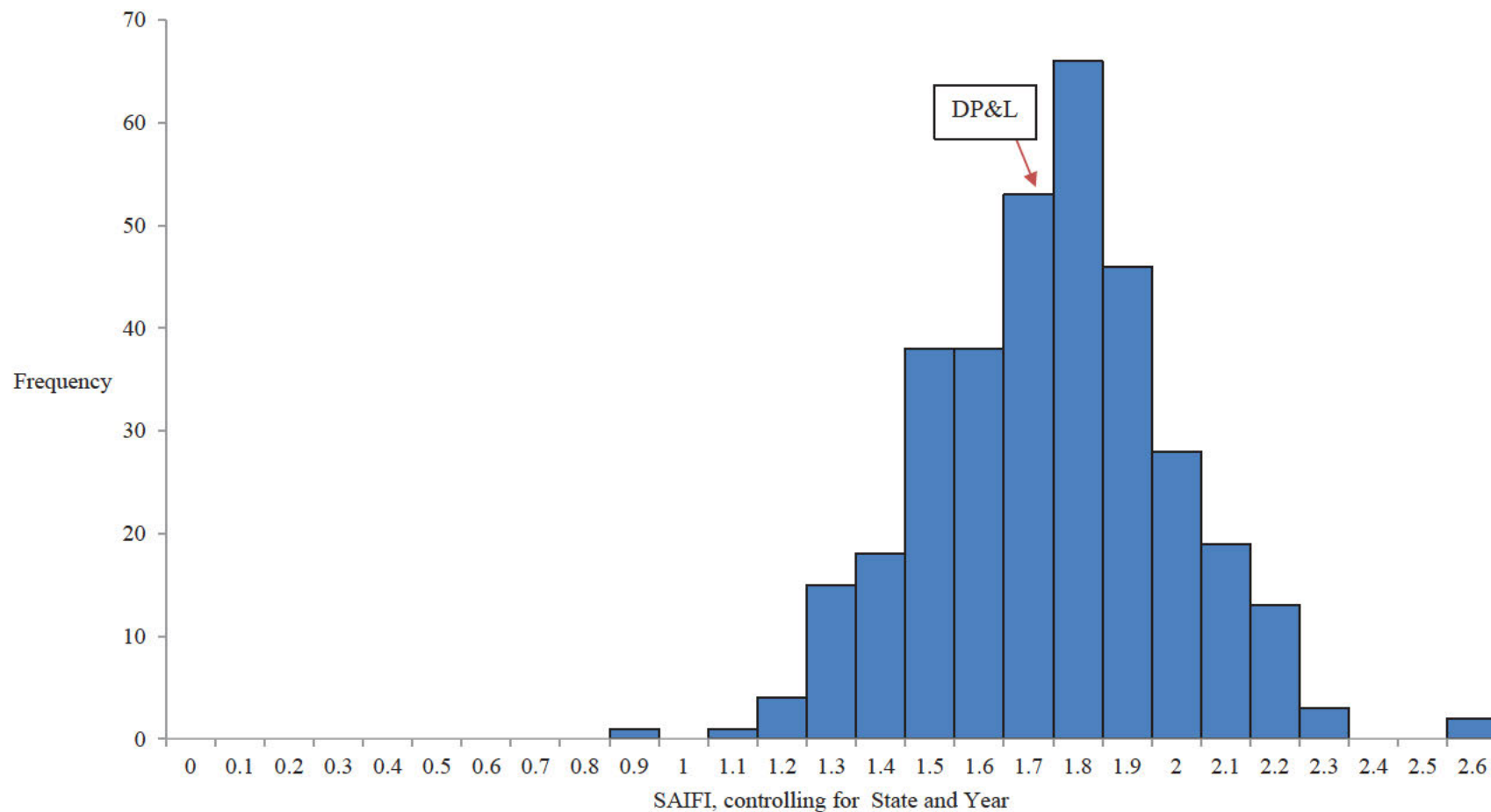
**SAIFI HISTOGRAMS**

**DP&L AND PEER ELECTRIC UTILITIES**

**2013–2018**



**EXHIBIT RJM-22B**  
**SAIFI HISTOGRAMS**  
**DP&L AND PEER ELECTRIC UTILITIES**  
**2013–2018**





**EXHIBIT RJM-22B**

**SAIFI HISTOGRAMS**

**DP&L AND PEER ELECTRIC UTILITIES**

**2013–2018**

Notes & Sources:

Includes yearly observations of SAIFI for the companies in the Edison Electric Institute.

SAIFI controlling for State and Year calculated as the residuals of a regression of SAIFI on state and year dummies plus the intercept of a regression of SAIFI on state and year dummies.

Includes companies for which CapEx, Total Sales of Electricity Volume (MwH), and SAIFI were available for a given year's calculation.

Companies chosen based on Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

SAIFI data from Energy Information Administration (EIA) form 861 data. Values are without major event days.

EXHIBIT RJM-23A

SAIDI VS CAPEX PER MWH  
DP&L AND PEER ELECTRIC UTILITIES  
2013–2018



Notes & Sources:

CapEx per MWh calculated as the average of the prior three years' annual capital expenditures, where each year's capital expenditures are first divided by that year's total sales of electricity volume (MWh).

SAIDI controlling for State and Year calculated as the residuals of a regression of SAIDI on state and year dummies plus the intercept of a regression of SAIDI on state and year dummies.

Includes companies for which CapEx, Total Sales of Electricity Volume (MWh), and SAIDI were available for a given year's calculation.

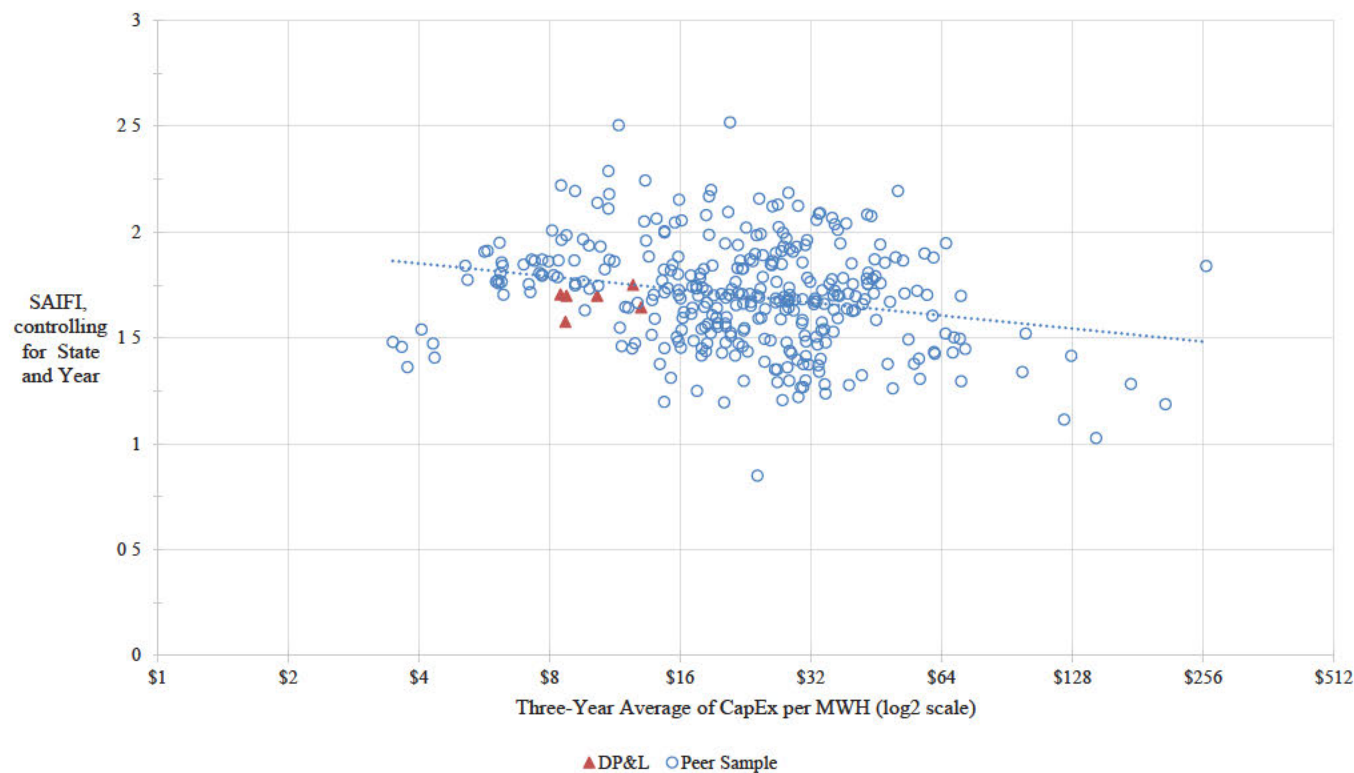
Companies chosen based on Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

CapEx and Total Sales of Electricity Volume (MWh) from Standard and Poor's Global Market Intelligence.

SAIDI data from Energy Information Administration (EIA) form 861 data. Values are in minutes and without major event days.

**EXHIBIT RJM-23B**

**SAIFI VS CAPEX PER MWH  
DP&L AND PEER ELECTRIC UTILITIES  
2013–2018**



Notes & Sources:

CapEx per Mwh calculated as the average of the prior three years' annual capital expenditures, where each year's capital expenditures are first divided by that year's total sales of electricity volume (Mwh).

SAIFI controlling for State and Year calculated as the residuals of a regression of SAIFI on state and year dummies plus the intercept of a regression of SAIFI on state and year dummies.

Includes companies for which CapEx, Total Sales of Electricity Volume (Mwh), and SAIFI were available for a given year's calculation.

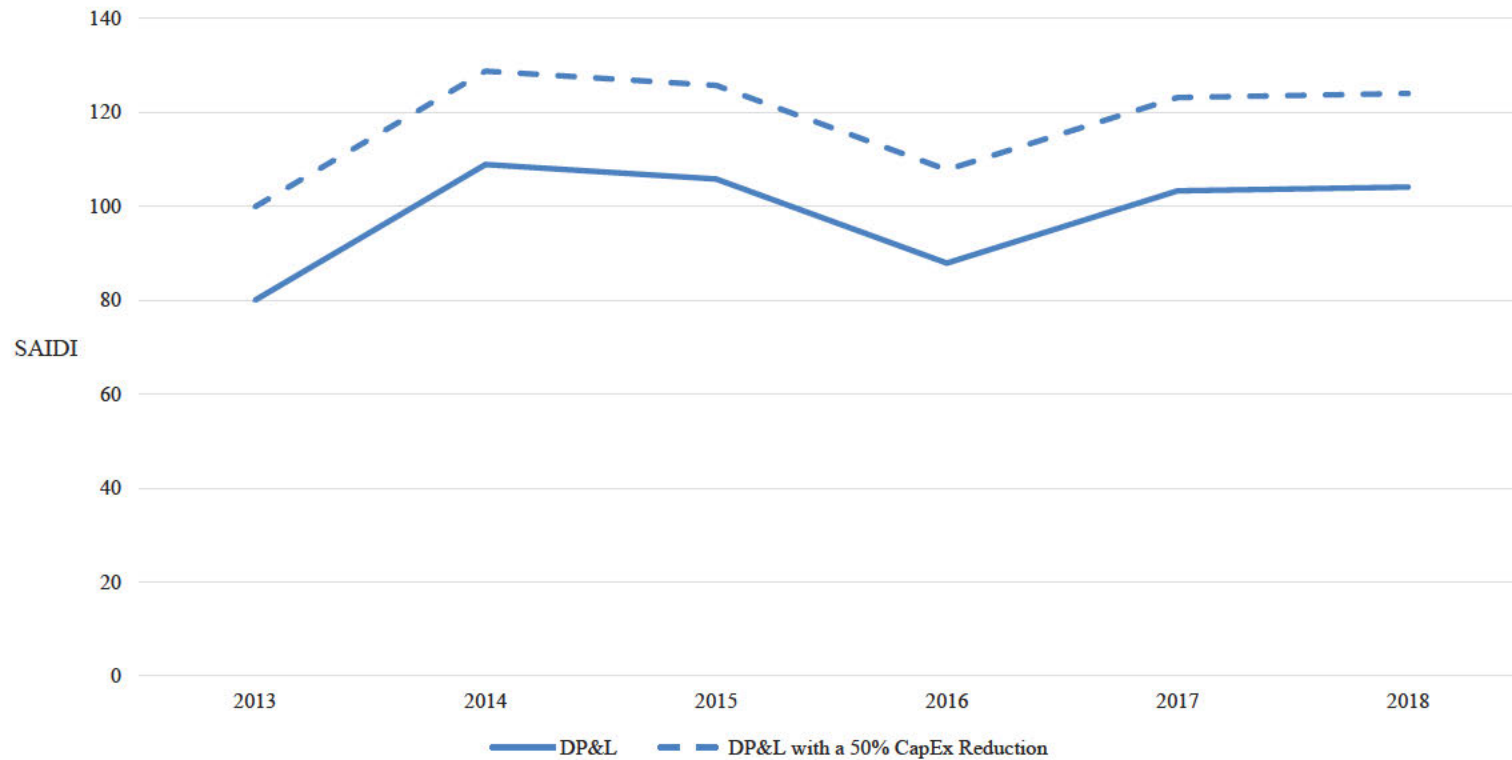
Companies chosen based on Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

CapEx and Total Sales of Electricity Volume (Mwh) from Standard and Poor's Global Market Intelligence.

SAIFI data from Energy Information Administration (EIA) form 861 data. Values are without major event days.

**EXHIBIT RJM-24A**

**SAIDI TREND LINES  
2013-2018**



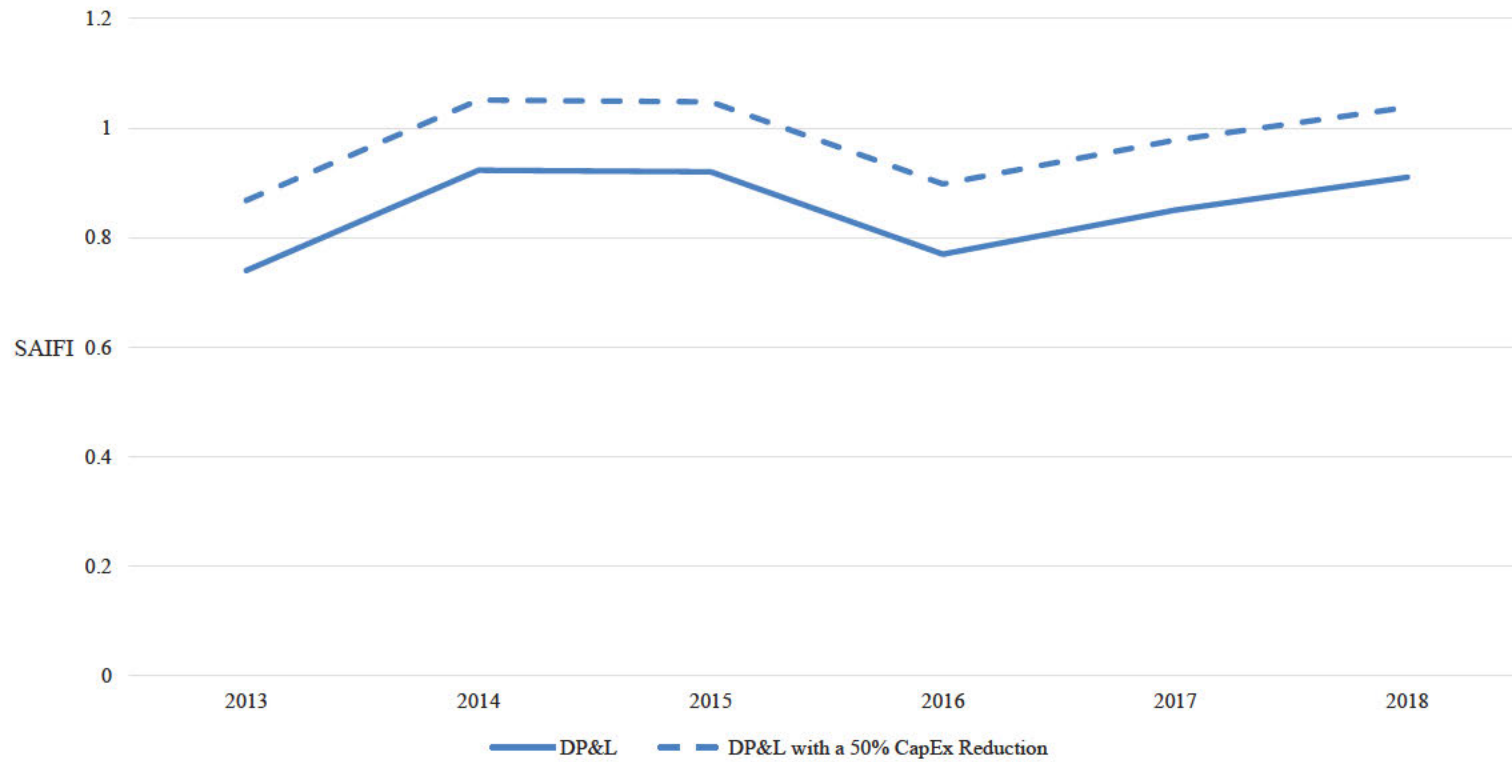
Notes & Sources:

DP&L with a 50% CapEx reduction calculated as DP&L SAIDI plus change in units in response to a CapEx reduction by 50 percent, using the Level-Log regression results based on the CapEx per MWh (log) coefficient. Change in units from Exhibit RJM-27.

SAIDI data from Energy Information Administration (EIA) form 861 data. Values are in minutes and without major event days.

**EXHIBIT RJM-24B**

**SAIFI TREND LINES  
2013-2018**



Notes & Sources:

DP&L with a 50% CapEx reduction calculated as DP&L SAIFI plus change in units in response to a CapEx reduction by 50 percent, using the Level-Log regression results based on the CapEx per MWh (log) coefficient. Change in units from Exhibit RJM-27.

SAIFI data from Energy Information Administration (EIA) form 861 data. Values are without major event days.

**EXHIBIT RJM-25**

**NET PP&E PER MWH  
DP&L AND PEER TRANSMISSION AND DISTRIBUTION COMPANIES  
2019**

	DP&L	Peer Sample				Cleveland Electric	Ohio Edison	Toledo Edison
		Mean	Min	Median	Max			
Net PP&E per Mwh	\$97.90	\$186.97	\$63.52	\$157.35	\$350.47	\$111.21	\$122.60	\$63.52

Notes & Sources:

Net PP&E per Mwh calculated as Net PP&E divided by that year's total sales of electricity volume (Mwh). Total sales of electricity volume unavailable for 2019. 2019 volume is projected by applying the 2013–2018 average annual growth rate to the volume of 2018.

Peer Sample includes companies with Electric Transmission and Electric Distribution, but without Electric Generation and/or Gas Distribution. From Standard and Poor's Global Market Intelligence.

Includes companies for which Net PP&E was available for 2019.

Companies chosen based on Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

Net PP&E and Total Sales of Electricity Volume (Mwh) from Standard and Poor's Global Market Intelligence.

EXHIBIT RJM-26

RELIABILITY REGRESSION RESULTS

	SAIDI		SAIFI	
	Level	Log	Level	Log
	[A]	[B]	[C]	[D]
Observations	345	342	345	342
R <sup>2</sup>	0.946	0.988	0.961	0.581
F Test	33.713***	6.386***	18.279***	9.407***
CapEx per MWH (log)	-28.693***	-0.318***	-0.184***	-0.215***
TD without Gas	29.159	0.228	0.012	-0.045
CapEx per MWH (log) x TD without Gas	-17.506	-0.151	-0.005	0.013
<b>Year</b>				
2014	11.412	0.198*	0.094**	0.134**
2015	19.752**	0.349**	0.158***	0.194**
2016	24.874**	0.393***	0.148**	0.183**
2017	23.712**	0.333**	0.118**	0.130**
2018	36.968***	0.442***	0.179***	0.220***
<b>State</b>				
AR	339.218***	6.312***	2.247***	1.113***
AZ	125.890***	4.669***	0.962***	-0.344*
CA	183.898***	5.444***	1.420***	0.461**
CT	161.564***	5.207***	1.296***	0.314
DE	184.391***	5.427***	1.514***	0.571**
FL	156.528***	5.125***	1.554***	0.581**
IA	180.006***	5.421***	1.513***	0.593**
ID	223.685***	5.706***	1.679***	0.711***
IL	170.081***	5.240***	1.309***	0.352*
IN	204.188***	5.459***	1.359***	0.397**
KY	510.044***	6.710***	2.678***	1.282***
LA	252.678***	5.870***	2.068***	0.981***
MD	179.043***	5.344***	1.340***	0.390**
ME	233.639***	4.866***	2.413***	1.250***
MI	271.111***	6.092***	1.481***	0.557**
MO	177.168***	5.365***	1.441***	0.473**
MS	235.960***	5.725***	1.808***	0.817***

EXHIBIT RJM-26

RELIABILITY REGRESSION RESULTS

	SAIDI		SAIFI	
	Level	Log	Level	Log
	[A]	[B]	[C]	[D]
NH	216.759***	5.735***	1.961***	0.977***
NJ	178.064***	5.285***	1.509***	0.547**
NM	163.858***	5.234***	1.366***	0.426**
NY	188.90***	4.364***	1.537***	0.554**
OH	130.290***	4.858***	1.096***	0.120
OK	158.635***	5.181***	1.481***	0.531**
OR	165.102***	5.243***	1.061***	-0.015
PA	186.495***	5.378***	1.412***	0.426**
TX	195.222***	5.363***	1.597***	0.538**
VA	529.123***	6.768***	2.485***	1.201***
WA	230.299***	5.816***	1.509***	0.583**
WI	140.839***	4.795***	1.127***	0.003
WV	426.211***	6.523***	2.312***	1.111***

\*\*\* p < 0.001, \*\* p < 0.05, \* p < 0.10

Notes & Sources:

"TD without Gas" dummy denotes companies with Electric Transmission and Electric Distribution, but without Electric Generation and/or Gas Distribution. From Standard and Poor's Global Market Intelligence.

CapEx per Mwh calculated as the average of the prior three years' annual capital expenditures, where each year's capital expenditures are first divided by that year's total sales of electricity volume (Mwh).

Regressions cover time period from 2013 through 2018.

F-Test reports the F-Statistic from a hypothesis test of the joint restriction that the regression coefficients on the state dummy and year dummy variables are equal to zero.

Includes companies for which CapEx, Total Sales of Electricity Volume (Mwh), SAIDI, and SAIFI were available for a given year's calculation. Companies chosen based on Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

CapEx and Total Sales of Electricity Volume (Mwh) from Standard and Poor's Global Market Intelligence.

SAIDI and SAIFI data from Energy Information Administration (EIA) form 861 data. SAIDI in minutes. Values are without major event days.



EXHIBIT RJM-27

IMPLIED ELASTICITY AND CHANGE IN RESPONSE TO CAPEX REDUCTION

	SAIDI		SAIFI	
	Level	Log	Level	Log
	[A]	[B]	[C]	[D]*
[1] Estimate of CapEx per MWh (log)	- [29 – 46]	- [0.32 – 0.47]	- [0.18 – 0.19]	- [0.20 – 0.22]
[2] Implied Elasticity	- [0.29 – 0.47]	- [0.32 – 0.47]	- [0.22 – 0.22]	- [0.20 – 0.22]
[3] Change in Response to CapEx Reduction by 50%				
[4] <i>Approximate Percent</i>	15% – 23%	16% – 23%	11% – 11%	10% – 11%
[5] <i>Units</i>	20 – 32	24 – 38	0.13 – 0.13	0.13 – 0.14

Notes & Sources:

Implied Elasticity and Change in Response to CapEx Reduction shown as ranges with the first value based on the Coefficient of CapEx per MWh (log) and the second value based on Coefficient of CapEx per MWh (log) plus the interaction term, of CapEx per MWh (log) x TD without Gas.

"TD without Gas" represents companies with Electric Transmission and Electric Distribution, but without Electric Generation and/or Gas Distribution.

From Standard and Poor's Global Market Intelligence.

CapEx per MWh calculated as the average of the prior three years' annual capital expenditures, where each year's capital expenditures are first divided by that year's total sales of electricity volume (MWh).

Includes companies for which CapEx, Total Sales of Electricity Volume (MWh), SAIDI, and SAIFI were available for a given year's calculation.

Companies chosen based on Edison Electric Institute, "U.S. Investor-Owned Electric Companies, International Members, Associate Members," Members List, February 2020.

CapEx and Total Sales of Electricity Volume (MWh) from Standard and Poor's Global Market Intelligence.

SAIDI and SAIFI data from Energy Information Administration (EIA) form 861 data. SAIDI in minutes. Values are without major event days.

\* Range order flipped with the first value based on the Coefficient of CapEx per MWh (log) plus the interaction term, of CapEx per MWh (log) x TD without Gas and the second value based on the Coefficient of CapEx per MWh (log).

[1] From Exhibit RJM-26.

[2][A] = [1] / Average DP&L SAIDI. DP&L SAIDI from Exhibit RJM-21.

[2][C] = [1] / Average DP&L SAIFI. DP&L SAIFI from Exhibit RJM-21.

[2][B], [D]\* = [1].

[4] = -[2] \* 0.5.

[5][A],[C] = [1] \* the natural log of 0.5.

[5][B] = Average DP&L SAIDI \* (the natural exponential of ([2] \* the natural log of 0.5) - 1). DP&L SAIDI from Exhibit RJM-21.

[5][D]\* = Average DP&L SAIFI \* (the natural exponential of ([2] \* the natural log of 0.5) - 1). DP&L SAIFI from Exhibit RJM-21.

**EXHIBIT RJM-28A**

**MFA TEST**

**MRO**

	2020	2021	2022	2023	Total
Rate Stabilization Charge					
Less: Financial Integrity Charge					
Less: Generation Remediation Costs					
Net Cost (Benefit) of ESP					
Discount Rate					
4%					
6%					
8%					
10%					
12%					

Notes & Sources:

In thousands.

Assumes mid-year cash flow timing, discounted to April 1, 2020.

From internal Company projections.

**EXHIBIT RJM-28B**

**MFA TEST**

**MRO**

	2020	2021	2022	2023	Total
Rate Stabilization Charge					
Less: Financial Integrity Charge					
Less: Generation Remediation Costs					
Net Cost (Benefit) of ESP					
Discount Rate					
4%					
6%					
8%					
10%					
12%					

Notes & Sources:

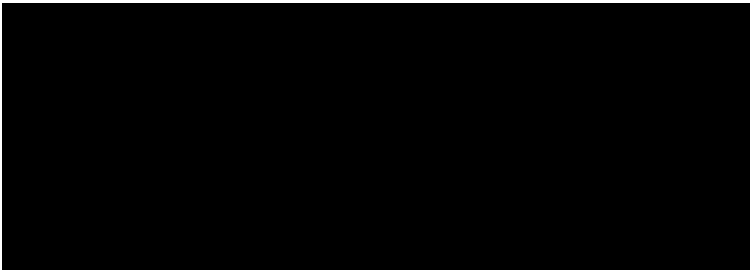
In thousands.

Assumes mid-year cash flow timing, discounted to April 1, 2020.

From internal Company projections.


**EXHIBIT RJM-29**

**DP&L RETURN ON EQUITY PROJECTIONS, 2020–2023  
ESP WITH RSC**

	2019	2020	2021	2022	2023	Average
[1] Net Income						
[2] Equity	473,303					
[3] Average Equity						
[4] ROE						
[5] Average Adjusted Equity						
[6] Adjusted ROE						

Notes & Sources:

In thousands.

- [1]  From Exhibit RJM-42A.
- [2] Total Common Shareholder's Equity, as of December. From Exhibit RJM-42B.
- [3] Average of previous and current year-end equity.
- [4] = [1] / [3].
- [5] = [3] + \$910,700 net loss from discontinued operations in 2016 and 2017, from DPL Inc. and  
The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2019, at 101.
- [6] = [1] / [5].  
From internal Company projections.

**EXHIBIT RJM-30**

**SEET BENCHMARKING – ETF AND VALUE LINE PEER SAMPLES  
SUMMARY**

	Value Line Electric Utilities			
	XLU	All Comparable	Central Only	All
2016 –2019 Average ROE				
Number of Firms	27	24	14	40
Arithmetic Average	10.4%	10.0%	10.0%	9.8%
Standard Deviation	2.4%	2.4%	1.9%	2.3%
SEET Thresholds				
Safe Harbor (200 bps)	12.4%	12.0%	12.0%	11.8%
Arithmetic Average × 1.5	15.6%	15.0%	15.1%	14.7%
Arithmetic Average + 1.64 Std. Dev.	14.3%	13.9%	13.1%	13.6%
Forecasted ROE				
Arithmetic Average	10.8%	10.0%	10.2%	10.0%
Standard Deviation	1.7%	2.0%	1.6%	1.9%
SEET Thresholds				
Safe Harbor (200 bps)	12.8%	12.0%	12.2%	12.0%
Arithmetic Average × 1.5	16.1%	15.0%	15.3%	15.1%
Arithmetic Average + 1.64 Std. Dev.	13.6%	13.3%	12.8%	13.2%

Notes & Sources:

Calculated from Exhibit RJM-32, columns [J] and [K].

All Comparable sample composed of firms in the Value Line East, Central, or West Electric Utility industry list and with a

Standard & Poor's Corporate Long-Term Rating of BBB-, BBB, or BBB+.

From Value Line.

**EXHIBIT RJM-31**

**SEET BENCHMARKING – ANNUAL ROE FOR PEER FIRMS  
2016 – 2025 SUMMARY**

	ValueLine Electric Utilities			
	XLU	All Comparable	Central Only	All
Number of Firms	27	24	14	40
Arithmetic Average				
2019	10.2%	9.9%	10.3%	9.8%
2016 – 2019 Average	10.4	10.0	10.0	9.8
2020	10.4	9.7	10.0	9.8
2021	10.8	10.8	10.1	10.3
Long-Run Forecast	11.1	10.2	10.4	10.3
Forecast Average	10.8	10.0	10.2	10.0
Median				
2019	10.3	9.8	10.5	10.0
2016 – 2019 Average	10.3	9.8	10.3	9.6
2020	10.5	9.8	10.5	10.0
2021	10.5	10.5	10.5	10.5
Long-Run Forecast	10.8	9.8	10.5	10.5
Forecast Average	10.5	9.8	10.4	10.1
Standard Deviation				
2019	2.7	2.8	1.7	1.9
2016 – 2019 Average	2.4	2.4	1.9	2.3
2020	2.5	2.7	1.6	1.8
2021	2.2	3.9	1.6	2.4
Long-Run Forecast	1.8	2.8	1.6	1.9
Forecast Average	1.7	2.0	1.6	1.9

Notes & Sources:

Calculated from Exhibit RJM-32.

EXHIBIT RJM-32

SEET BENCHMARKING – ANNUAL ROE FOR PEER FIRMS  
2016 – 2025

Ticker	Company	ROE							Average ROE		Index Inclusion		
		2016	2017	2018	2019	2020	2021	LR Forecast	2016 – 2019	Forecast	XLU	ValueLine Electric Utilities	
												All Comparable	Central Only
[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
[1] LNT	Alliant Energy	9.7%	6.4%	11.2%	10.7%	10.5%	10.0%	10.5%	9.5%	10.3%	X		X
[2] AEP	Amer. Elec. Power	11.9	9.8	10.1	10.3	10.5	10.5	10.5	10.5	10.5	X		X
[3] AWK	Amer. Water Works	9.0	7.9	9.7	10.5*	10.5	n/a	11.5	9.3	11.0	X		
[4] AEE	Ameren Corp.	9.2	9.4	10.7	10.3	9.5	10.0	10.0	9.9	9.8	X	X	X
[5] ATO	Atmos Energy	10.1	9.8	9.3	8.9	9.0	9.0	9.0	9.5	9.0	X		
[6] CNP	CenterPoint Energy	12.5	14.5	5.3	11.5	10.5	10.5	10.5	11.0	10.5	X	X	X
[7] CMS	CMS Energy Corp.	13.0	13.7	13.8	13.6	13.5	13.5	13.5	13.5	13.5	X	X	X
[8] ED	Consol. Edison	8.3	8.2	8.5	7.0*	8.0	8.0	8.5	8.0	8.2	X		
[9] D	Dominion Energy	14.5	13.1	10.6	6.5*	12.5	13.0	13.5	11.2	13.0	X	X	
[10] DTE	DTE Energy	9.6	10.8	10.9	10.0	10.0	10.5	10.5	10.3	10.3	X	X	X
[11] DUK	Duke Energy	6.2	7.1	6.7	8.0*	8.0	8.0	8.5	7.0	8.2	X		
[12] EIX	Edison Int'l	10.8	12.7	n/a	11.5*	11.0	n/a	11.0	11.7	11.0	X	X	
[13] ETR	Entergy Corp.	15.2	11.7	12.2	12.1	10.5	10.5	11.0	12.8	10.7	X	X	X
[14] EVRG	Eversource Energy	n/a	n/a	5.3	7.8	8.0	8.5	8.5	6.6	8.3	X		X
[15] ES	Eversource Energy	8.8	8.9	9.0	9.0*	9.0	9.0	9.5	8.9	9.2	X		
[16] EXC	Exelon Corp.	6.5	8.8	6.5	9.0*	9.0	9.0	9.0	7.7	9.0	X	X	
[17] FE	FirstEnergy Corp.	14.3	30.9	9.7	13.0*	13.0	17.5	15.0	17.0	15.2	X	X	
[18] NEE	NextEra Energy	11.1	10.9	9.4	10.0*	11.5	12.0	13.0	10.4	12.2	X		
[19] NI	NiSource Inc.	8.1	3.0	9.3	8.0*	8.5	9.0	12.5	7.1	10.0	X		
[20] NRG	NRG Energy	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	X		
[21] PNW	Pinnacle West Capital	9.2	9.9	9.8	9.5*	10.0	n/a	10.0	9.6	10.0	X		
[22] PPL	PPL Corp.	19.2	13.5	15.7	13.5*	14.0	13.5	13.5	15.5	13.7	X		
[23] PEG	Public Serv. Enterpr.	10.9	10.3	9.7	12.5*	11.0	11.0	11.0	10.9	11.0	X	X	
[24] SRE	Sempra Energy	8.2	9.2	10.0	9.5*	10.0	n/a	11.5	9.2	10.8	X	X	
[25] SO	Southern Co.	11.0	13.4	12.5	12.0*	12.0	12.0	13.0	12.2	12.3	X		
[26] WEC	WEC Energy Group	10.5	10.5	10.8	11.2	11.5	11.5	12.5	10.8	11.8	X		X
[27] XEL	Xcel Energy Inc.	10.2	10.2	10.3	10.5*	10.0	n/a	10.5	10.3	10.3	X		
[28] ALE	ALLETE	8.2	7.7	8.1	7.7	7.5	8.0	8.5	7.9	8.0		X	X
[29] AGR	AVANGRID, Inc.	4.0	3.4	3.9	5.0*	5.0	5.0	6.0	4.1	5.3		X	
[30] AVA	Avista Corp.	8.3	7.3	7.7	10.0*	7.0	n/a	8.0	8.3	7.5		X	
[31] BKH	Black Hills	8.7	10.9	8.8	9.0*	9.0	n/a	9.5	9.4	9.3		X	
[32] EE	El Paso Electric	9.0	8.6	7.2	9.0*	7.5	n/a	8.0	8.5	7.8		X	
[33] FTS.TO	Fortis Inc.	4.5	8.3	7.2	6.9	7.0	6.5	7.0	6.7	6.8			X

EXHIBIT RJM-32

SEET BENCHMARKING – ANNUAL ROE FOR PEER FIRMS  
2016 – 2025

Ticker	Company	ROE							Average ROE		Index Inclusion		
		2016	2017	2018	2019	2020	2021	LR Forecast	2016 – 2019	Forecast	XLU	ValueLine Electric Utilities All Comparable	Central Only
[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
[34] HE	Hawaiian Elec.	12.0	8.5	9.3	9.5*	9.5	n/a	9.0	9.8	9.3		X	
[35] IDA	IDACORP, Inc.	9.2	9.4	9.6	9.0*	9.0	n/a	9.5	9.3	9.3		X	
[36] MGEE	MGE Energy	10.4	9.8	10.3	10.2	10.0	10.0	10.5	10.2	10.2			X
[37] NWE	NorthWestern Corp.	9.8	9.0	8.8	9.0*	8.5	n/a	9.0	9.2	8.8		X	
[38] OGE	OGE Energy	9.8	10.0	10.6	10.9	10.5	11.0	11.0	10.3	10.8		X	X
[39] OTTR	Otter Tail Corp.	9.3	10.6	11.3	11.1	10.5	10.5	11.5	10.6	10.8		X	X
[40] PNM	PNM Resources	7.0	9.1	7.9	10.5*	10.5	n/a	9.0	8.6	9.8		X	
[41] POR	Portland General	8.2	8.4	8.5	8.5*	8.5	n/a	9.0	8.4	8.8		X	
[42] UTL	Unitil Corp.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		X	

Notes & Sources:

AES Corporation is excluded.

[F] \* Denotes a forecasted value.

[G] - [I] Forecasted values. Long-Run Forecast for 2022 – 2024 or 2023 – 2025, based on data availability.

[J] Average of [C] through [F].

[K] Average of [G] through [I].

[L] The Utilities Select Sector SPDR Fund. Holdings list as of March 17, 2020.

[M] Sample composed of firms in the Value Line East, Central, or West Electric Utility industry list and with a Standard & Poor's Corporate Long-Term Rating of BBB-, BBB, or BBB+.

[N] Value Line Electric Utility (Central) Industry List.

From Value Line Investment Survey, January 10, 2020, January 24, 2020, February 14, 2020, February 28, 2020, March 13, 2020, and March 20, 2020.



## EXHIBIT RJM-33

ETF AND VALUE LINE PEER SAMPLES  
FIRM CHARACTERISTICS Q4 2018 – Q3 2019

Ticker	Company	Debt Rating		Equity Beta	Total Assets	Revenue	Debt Equity	Debt EBITDA	EBITDA	Net Income	Approved
		Moody's	S&P				Ratio	Ratio	Margin	Margin	ROE
[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
[1] LNT	Alliant Energy	Baa2	A-	0.65	\$15,949	\$910	0.34	4.26	37.8%	14.3%	10.0%
[2] AEP	Amer. Elec. Power	n/a	A-	0.60	71,494	3,937	0.40	4.97	34.4	13.4	10.1
[3] AWK	Amer. Water Works	n/a	n/a	0.60	21,695	890	0.32	4.19	59.8	17.5	n/a
[4] AEE	Ameren Corp.	Baa1	BBB+	0.60	27,843	1,503	0.35	3.99	39.1	13.1	n/a
[5] ATO	Atmos Energy	n/a	A	0.60	12,512	726	0.25	2.63	48.2	6.8	n/a
[6] CNP	CenterPoint Energy	Baa2	BBB+	0.85	32,436	3,027	0.47	5.52	19.8	6.4	9.4
[7] CMS	CMS Energy Corp.	n/a	BBB+	0.55	25,156	1,720	0.44	5.74	31.3	9.0	10.0
[8] ED	Consol. Edison	Baa1	A-	0.45	55,132	3,143	0.44	4.99	33.9	11.1	8.9
[9] D	Dominion Energy	n/a	BBB+	0.60	95,287	3,865	0.39	5.39	44.9	4.1	n/a
[10] DTE	DTE Energy	n/a	BBB+	0.60	36,980	3,318	0.40	5.14	21.8	8.3	10.0
[11] DUK	Duke Energy	Baa1	A-	0.55	151,474	6,273	0.49	5.34	45.3	13.9	10.0
[12] EIX	Edison Int'l	Baa3	BBB	0.60	59,810	3,097	0.44	11.17	12.3	(1.4)	10.3
[13] ETR	Entergy Corp.	Baa2	BBB+	0.60	49,738	2,732	0.50	4.97	34.9	9.3	10.0
[14] EVRG	Eversource Energy	n/a	A-	n/a	25,821	1,304	0.40	3.90	46.3	11.1	9.3
[15] ES	Eversource Energy	Baa1	A-	0.60	38,976	2,128	0.39	3.83	45.1	10.2	9.6
[16] EXC	Exelon Corp.	Baa2	BBB+	0.65	121,398	8,728	0.45	3.23	32.9	6.6	n/a
[17] FE	FirstEnergy Corp.	Baa3	BBB	0.60	40,736	2,768	0.48	5.16	35.6	7.7	10.7
[18] NEE	NextEra Energy	Baa1	A-	0.60	109,376	4,748	0.29	3.41	58.8	14.8	10.6
[19] NI	NiSource Inc.	Baa2	BBB+	0.55	21,950	1,318	0.49	5.83	32.0	19.0	n/a
[20] NRG	NRG Energy	n/a	BB	1.25	9,714	2,327	0.38	4.30	15.7	10.5	n/a
[21] PNW	Pinnacle West Capital	A3	A-	0.60	18,015	889	0.35	3.40	45.5	12.2	10.0
[22] PPL	PPL Corp.	Baa2	A-	0.70	44,182	1,939	0.51	5.58	52.2	23.2	9.7
[23] PEG	Public Serv. Enterpr.	n/a	BBB+	0.65	46,044	2,517	0.35	4.21	36.7	13.5	9.6
[24] SRE	Sempra Energy	Baa1	BBB+	0.75	62,392	2,777	0.42	5.70	40.2	19.5	n/a
[25] SO	Southern Co.	n/a	A-	0.50	115,867	5,461	0.46	5.11	40.6	20.8	12.5
[26] WEC	WEC Energy Group	Baa1	A-	0.55	33,881	1,913	0.33	5.06	30.9	14.3	9.7
[27] XEL	Xcel Energy Inc.	Baa1	A-	0.55	48,165	2,903	0.38	3.94	39.0	11.0	9.6
[28] ALE	ALLETE	Baa1	BBB+	0.70	5,209	346	0.27	3.88	28.7	14.0	9.3
[29] AGR	AVANGRID, Inc.	Baa1	BBB+	0.30	32,866	1,599	0.31	2.89	37.6	9.2	9.2
[30] AVA	Avista Corp.	Baa2	BBB	0.65	5,879	338	0.41	5.45	27.9	12.9	9.5
[31] BKH	Black Hills	Baa2	BBB+	0.80	7,089	440	0.42	4.94	36.7	7.0	9.4
[32] EE	El Paso Electric	Baa2	BBB	0.70	3,728	216	0.38	3.80	45.7	8.7	9.7
[33] FTS.TO	Fortis Inc.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9.3

## EXHIBIT RJM-33

**ETF AND VALUE LINE PEER SAMPLES**  
**FIRM CHARACTERISTICS Q4 2018 – Q3 2019**

Ticker	Company	Debt Rating		Equity Beta	Total Assets	Revenue	Debt Equity	Debt EBITDA	EBITDA	Net Income	Approved
		Moody's	S&P				Ratio	Ratio	Margin	Margin	ROE
[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
[34] HE	Hawaiian Elec.	n/a	BBB-	0.60	13,380	728	0.33	3.53	20.8	7.0	9.5
[35] IDA	IDACORP, Inc.	Baa1	BBB	0.60	6,433	341	0.27	3.73	36.0	15.1	n/a
[36] MGEE	MGE Energy	n/a	n/a	0.65	2,021	142	0.18	2.80	32.7	15.2	9.8
[37] NWE	NorthWestern Corp.	n/a	BBB	0.60	5,719	311	0.37	5.08	34.0	14.3	n/a
[38] OGE	OGE Energy	n/a	BBB+	0.90	10,870	568	0.28	3.64	39.8	18.3	9.5
[39] OTTR	Otter Tail Corp.	Baa2	BBB	0.80	2,113	231	0.24	3.15	22.0	8.7	9.3
[40] PNM	PNM Resources	Baa3	BBB+	0.65	7,091	364	0.47	6.69	33.2	1.0	9.6
[41] POR	Portland General	A3	BBB+	0.60	8,052	525	0.36	3.40	35.1	9.4	9.5
[42] UTL	Unitil Corp.	Baa2	BBB+	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Average											
	XLU	Baa2	BBB+	0.63	51,556	2,847	0.40	4.85	37.6%	11.9%	10.0%
	Value Line All Comparable	Baa2	BBB+	0.65	30,707	1,829	0.38	4.80	32.5%	9.6%	9.7%
	Value Line Central Utilities	Baa2	BBB+	0.67	26,116	1,665	0.35	4.39	32.3%	11.9%	9.7%
	All	Baa2	BBB+	0.64	37,562	2,075	0.38	4.60	36.1%	11.5%	9.8%
Median											
	XLU	Baa1	BBB+	0.60	40,736	2,732	0.40	4.97	37.8%	11.1%	10.0%
	Value Line All Comparable	Baa2	BBB+	0.60	25,156	1,503	0.39	4.94	34.9%	9.0%	9.5%
	Value Line Central Utilities	Baa2	BBB+	0.63	25,821	1,503	0.35	4.26	32.7%	13.1%	9.8%
	All	Baa2	BBB+	0.60	26,832	1,659	0.39	4.28	35.8%	11.1%	9.6%
Standard deviation											
	XLU			0.14	36,246	1,782	0.07	1.50	11.3%	5.3%	0.7%
	Value Line All Comparable			0.12	30,488	1,899	0.07	1.68	8.2%	4.9%	0.4%
	Value Line Central Utilities			0.11	19,153	1,209	0.09	0.88	7.5%	3.3%	0.3%
	All			0.14	36,230	1,849	0.08	1.43	10.3%	5.1%	0.6%

Notes & Sources:

Average of quarterly values from Q4 2018 to Q3 2019 except equity beta. In thousands, except ratios and percentages.

[C] Standard & Poor's long-term issuer credit rating, as of March 29, 2020. From Standard and Poor's Global Market Intelligence.

[D] Moody's long-term issuer credit rating, as of March 29, 2020. From Standard and Poor's Global Market Intelligence.

[E] 2018 Value Line equity beta, calculated using weekly NYSE prices, over a 5 year period.

[F] Calculated as the average of all current and long-term assets as reported on the company's balance sheet.

[G] Calculated as the average of quarterly total sales revenue less returns, allowances, and sales discounts.

[H] Calculated as average of quarterly total debt / (total debt + (common shares outstanding × average weekly price over the quarter)).

[I] Calculated as average total debt over the period divided by total EBITDA over the period.

[J] Calculated as the average of quarterly EBITDA margins.

[K] Calculated as the average of quarterly net income margins.

[L] From the Value Line Investment Survey, January 24, 2020, February 14, 2020, and March 4, 2020. N/a indicate missing or non-recent (prior to 2017) data.

When recent allowed ROE for multiple subsidiaries or states are reported, the average is reported.

From Value Line Datafile.

## EXHIBIT RJM-34

ETF AND VALUE LINE PEER SAMPLES  
FIRM CHARACTERISTICS 2016 – 2018

Ticker	Company	Equity Beta	Total Assets	Revenue	Debt Equity Ratio	Debt EBITDA Ratio	EBITDA Margin	Net Income Margin
[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]
[1] LNT	Alliant Energy	0.70	\$14,329	\$3,412	0.35	4.53	31.9%	13.1%
[2] AEP	Amer. Elec. Power	0.63	65,667	16,000	0.41	4.34	33.6	12.0
[3] AWK	Amer. Water Works	0.63	19,729	3,366	0.35	4.74	49.1	14.4
[4] AEE	Ameren Corp.	0.65	25,953	6,181	0.38	3.53	38.7	11.7
[5] ATO	Atmos Energy	0.68	10,878	3,075	0.29	2.73	41.4	13.0
[6] CNP	Centerpoint Energy	0.85	23,858	9,244	0.43	4.16	23.0	5.4
[7] CMS	Cms Energy Corp.	0.62	23,067	6,618	0.46	5.03	32.3	9.2
[8] ED	Consol. Edison	0.50	50,095	12,148	0.42	4.58	31.9	10.6
[9] D	Dominion Energy	0.65	75,370	12,563	0.43	6.10	46.8	17.3
[10] DTE	Dte Energy	0.65	34,032	12,483	0.41	4.89	21.3	8.1
[11] DUK	Duke Energy	0.58	138,689	23,610	0.49	5.69	40.4	11.3
[12] EIX	Edison Int'L	0.63	53,538	12,282	0.38	4.26	27.0	7.7
[13] ETR	Entergy Corp.	0.63	46,962	10,977	0.54	4.93	30.8	10.0
[14] EVRG	Eversource Energy	n/a	8,533	1,425	0.37	5.18	38.5	4.2
[15] ES	Eversource Energy	0.65	35,505	7,946	0.41	4.73	34.4	12.5
[16] EXC	Exelon Corp.	0.68	117,090	33,625	0.50	3.76	28.5	6.3
[17] FE	Firstenergy Corp.	0.63	41,823	13,282	0.58	5.00	32.4	8.0
[18] NEE	Nextera Energy	0.63	97,174	16,692	0.34	4.45	46.4	17.9
[19] NI	Nisource Inc.	0.40	20,153	4,827	0.51	5.52	32.6	6.4
[20] NRG	Nrg Energy	1.23	21,434	10,819	0.68	9.37	13.9	(5.8)
[21] PNW	Pinnacle West Capital	0.67	16,896	3,585	0.35	3.20	42.1	13.5
[22] PPL	Ppl Corp.	0.70	41,063	7,583	0.47	5.11	53.9	22.7
[23] PEG	Public Serv. Enterpr.	0.68	42,704	9,352	0.36	3.79	38.4	15.2
[24] SRE	Sempra Energy	0.78	52,959	11,026	0.42	6.00	31.2	11.5
[25] SO	Southern Co.	0.53	112,539	22,141	0.50	5.51	39.7	13.7
[26] WEC	Wec Energy Group	0.60	31,730	7,600	0.36	4.50	32.2	13.1
[27] XEL	Xcel Energy Inc.	0.58	43,391	11,349	0.41	4.28	32.9	10.4
[28] ALE	Allete	0.73	5,050	1,419	0.30	3.69	29.0	11.5
[29] AGR	Avangrid, Inc.	0.22	31,716	6,153	0.29	2.93	32.4	9.3
[30] AVA	Avista Corp.	0.70	5,536	1,428	0.40	4.13	33.2	9.3
[31] BKH	Black Hills	0.87	6,713	1,669	0.49	5.62	34.7	9.9
[32] EE	El Paso Electric	0.73	3,496	902	0.40	4.09	37.6	10.3
[33] FTS.TO	Fortis Inc.	0.67	49,592	7,843	0.56	7.14	41.5	12.4

## EXHIBIT RJM-34

ETF AND VALUE LINE PEER SAMPLES  
FIRM CHARACTERISTICS 2016 – 2018

	Ticker	Company	Equity Beta	Total Assets	Revenue	Debt Equity Ratio	Debt EBITDA Ratio	EBITDA Margin	Net Income Margin
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]
[34]	HE	Hawaiian Elec.	0.67	12,876	2,599	0.34	3.22	21.8	8.2
[35]	IDA	Idacorp, Inc.	0.68	6,239	1,327	0.29	3.95	34.0	16.0
[36]	MGEE	Mge Energy	0.70	1,882	556	0.18	2.27	35.0	14.1
[37]	NWE	Northwestern Corp.	0.67	5,522	1,254	0.43	5.00	34.0	13.3
[38]	OGE	Oge Energy	0.92	10,367	2,264	0.31	3.78	35.8	16.9
[39]	OTTR	Otter Tail Corp.	0.85	1,990	856	0.28	2.56	27.2	8.5
[40]	PNM	Pnm Resources	0.72	6,661	1,415	0.49	4.91	40.0	9.5
[41]	POR	Portland General	0.67	7,825	1,974	0.38	3.45	35.5	10.3
[42]	UTL	Unitil Corp.	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Average									
	XLU		0.66	46,858	10,860	0.43	4.81	35.0%	10.9%
	Value Line All Comparable		0.69	27,885	6,995	0.40	4.29	32.4%	10.6%
	Value Line Central Utilities		0.71	24,501	6,206	0.38	4.32	32.2%	10.7%
	All		0.67	34,649	7,924	0.41	4.55	34.6%	11.1%
Median									
	XLU		0.64	41,063	10,819	0.41	4.73	32.9%	11.5%
	Value Line All Comparable		0.68	23,067	6,153	0.40	4.13	32.4%	9.9%
	Value Line Central Utilities		0.67	23,463	6,400	0.38	4.42	32.3%	11.6%
	All		0.67	23,858	6,618	0.41	4.50	34.0%	11.3%
Standard deviation									
	XLU		0.14	33,570	6,963	0.08	1.19	8.6%	5.2%
	Value Line All Comparable		0.13	27,553	7,254	0.08	0.92	5.9%	3.2%
	Value Line Central Utilities		0.10	18,768	4,643	0.10	1.15	5.5%	3.3%
	All		0.15	32,953	7,068	0.09	1.26	7.5%	4.5%

Notes & Sources:

In thousands, except ratios and percentages.

All values except equity beta are calculated from 2016 to 2018.

[C] Value Line equity beta, calculated using weekly NYSE prices, over a 5 year period.

[D] Calculated as the average of all current and long-term assets as reported on the company's balance sheet.

[E] Calculated as the average of annual total sales revenue less returns, allowances, and sales discounts.

[F] Calculated as average of annual total debt / (total debt + (common shares outstanding × average annual price)).

[G] Calculated as sum of total Debt over the period divided by total EBITDA over the period.

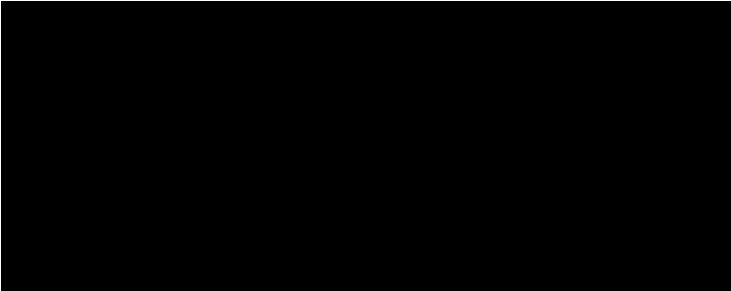
[H] Calculated as total EBITDA over the period divided by total revenue over the period.

[I] Calculated as the average of annual net income margins.

From Value Line Datafile.


**EXHIBIT RJM-35**

**DP&L RETURN ON EQUITY PROJECTIONS, 2020–2023  
ESP WITHOUT RSC**

	2019	2020	2021	2022	2023	Average
[1] Net Income						
[2] Equity	473,303					
[3] Average Equity						
[4] ROE						
[5] Average Adjusted Equity						
[6] Adjusted ROE						

Notes & Sources:

In thousands.

- [1]  From Exhibit RJM-44A.
- [2] Total Common Shareholder's Equity, as of December. From Exhibit RJM-44B.
- [3] Average of previous and current year-end equity.
- [4] = [1] / [3].
- [5] = [3] + \$910,700 net loss from discontinued operations in 2016 and 2017, from DPL Inc. and  
The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2019, at 101.
- [6] = [1] / [5].  
From internal Company projections.


**EXHIBIT RJM-36A**

**DP&L INCOME STATEMENT PROJECTIONS, 2020 – 2023  
MRO WITHOUT FIC**

	2020	2021	2022	2023
Total Transmission Revenues				
Total Distribution Revenues				
Total SSO Revenues				
FIC Revenue				
Total DP&L Legacy Generation Revenues				
<b>Total Revenues</b>				
Total Transmission COGS				
Total Distribution COGS				
Total SSO COGS				
Total DP&L Legacy Generation COGS				
<b>Total Cost of Revenues</b>				
<b>Gross Margin</b>				
Direct O&M Expense				
Indirect O&M Expense				
General Taxes				
<b>Total Operating Expenses</b>				
<b>Operating EBITDA</b>				
<b>Depreciation and Amortization</b>				
<b>Operating Income</b>				
Interest Expense				
Interest (Income) - Other				
Other Expense / (Income)				

**EXHIBIT RJM-36A**

**DP&L INCOME STATEMENT PROJECTIONS, 2020 – 2023  
MRO WITHOUT FIC**

	2020	2021	2022	2023
Income before taxes, MI & EE				
Current Income Tax Expense (Benefit)				
Deferred Income Tax Expense (Benefit)				
Total Income Taxes (Benefits)				
Net Income				
Preferred Stock Dividend (Accrued)				
Net Income Available to Parent				
Dividend to Parent				
Retained Earnings				

Notes & Sources:

In thousands.

From internal Company projections.

**EXHIBIT RJM-36B**

**DP&L BALANCE SHEET PROJECTIONS, 2019 – 2023  
MRO WITHOUT FIC**

	2019	2020	2021	2022	2023
<b>ASSETS</b>					
Current Assets					
Unrestricted Cash Held at DP&L					
Restricted Cash Held at DP&L					
Accounts Receivable					
Inventory - Fuel and Raw Materials					
Inventory - Spare Parts and Supplies					
General Taxes Applicable to Future Years					
Regulatory Assets					
Other Current Assets - Fixed					
<b>Total Current Assets</b>					
Gross Plant in Service					
Construction Work in Progress					
Accumulated Depreciation					
<b>Net PP&amp;E</b>					
Other Non-Current Assets - Fixed					
Loss on Reacquired Debt					
Deferred Financing Costs					
Unrealized Loss on Pension - Fixed					
Other Deferred Assets - Fixed					
<b>Total Deferred and Non-Current Assets</b>					
<b>TOTAL ASSETS</b>					



**EXHIBIT RJM-36B**

**DP&L BALANCE SHEET PROJECTIONS, 2019 – 2023  
MRO WITHOUT FIC**

	2019	2020	2021	2022	2023
LIABILITIES AND SHAREHOLDER'S EQUITY					
Accounts Payable					
Current Portion of Long-Term Debt					
Short-Term Debt					
Current Income Taxes Payable					
Accrued Interest					
Customer Deposits					
Accrued Preferred Stock Dividend					
General Taxes Payable					
Other Current Liabilities - Fixed					
Total Current Liabilities					
Long Term Debt					
Interest Rate Hedges					
Accumulated Deferred Income Taxes					
Asset Retirement Obligation					
General Taxes Payable - Non-Current					
Unamortized Investment Tax Credit					
Regulatory Liabilities					
Pension & Benefit					
Other Non-Current Liabilities - Fixed					
Total Deferred Credits & Non-Current Liabilities					
Additional Paid In Capital					
Retained Earnings (Accumulated Deficit)					
Total Common Shareholder's Equity					
Preferred Stock					
TOTAL LIABILITIES AND SHAREHOLDER'S EQUITY					

Notes & Sources:

In thousands.

Additional Paid in Capital is equivalent to Total Paid in Capital plus Total Accumulated Other Comprehensive Income (Loss).

From internal Company projections.

EXHIBIT RJM-36C

DP&L CASH FLOW PROJECTIONS, 2020 – 2023  
MRO WITHOUT FIC

	2020	2021	2022	2023
Operating Activities				
Net Income				
Adjustments				
Depreciation and Amortization				
Deferred Income Taxes				
Current Income Taxes				
Accounts Payable, Regulatory Liabilities				
Accounts Receivable, Regulatory Assets				
Pension				
Inventory				
Accrued Interest				
Capitalized Interest in Interest Expense				
Equity AFUDC in Other Expense / (Income)				
Customer Deposits				
Net General Taxes Payable				
Investment Tax Credits				
Net cash provided by operating activities				
Investing Activities				
Capital expenditures				
Other Investing Activities				
Net cash used for investing activities				
Financing Activities				
Issuance/(Retirement) of LT Debt				
Debt issuance fees				
Issuance/(Retirement) of Short-term Debt				
Preferred Stock Dividends Paid				
Equity Infusion				
Dividend paid to parent				
Net cash provided by financing activities				
Cash and Temporary Cash Investments				
(Decrease) Increase in Cash and Cash Equivalents				

Notes & Sources:

In thousands.

From internal Company projections.

EXHIBIT RJM-37A

DPL INC. INCOME STATEMENT PROJECTIONS, 2020 – 2023  
MRO WITHOUT FIC

	2020	2021	2022	2023
Total Retail Revenues				
FIC Revenue				
Generation Sales				
Energy Sales				
Capacity Sales				
Ancillary Services				
Other Generation Revenues				
Total Generation Revenues				
Total Other Revenues				
Total Revenues				
Cost of Revenues				
Fuel Related Costs				
Electricity Purchased For Resale				
Intercompany and Other Cost Of Sales				
Chemicals, Utilities, Supplies for Production				
Var Transmission Charges and Other Mkt Rel Fees				
Environmental Allowances				
Total Cost of Revenues				
Gross Margin				

**EXHIBIT RJM-37A**

**DPL INC. INCOME STATEMENT PROJECTIONS, 2020 – 2023**  
**MRO WITHOUT FIC**

	2020	2021	2022	2023
O&M Expenses				
Salaries Wages and Benefits				
Contract Services Consulting Costs				
Other Fixed Operating Costs				
Provision For Bad Debt				
Taxes Other than Income Taxes				
Total Operating Expenses				
Operating EBITDA				
Total Depreciation, Depletion, and Amortization				
Operating Income				
Interest Expense				
Interest (Income) - Other				
Other Expense / (Income)				
Goodwill/Asset Impairment				
Income Before Taxes, MI & EE				
Current Income Tax Expense (Benefit)				
Deferred Income Tax Expense (Benefit)				
Total Income Taxes (Benefits)				
Net Income				
Preferred Stock Dividend (Accrued)				
Net Income Attributable to AES				
Dividend to AES				
Permanent Forgiveness of Income Tax				
Retained Earnings				

Notes & Sources:

In thousands.

From internal Company projections.

**EXHIBIT RJM-37B**

**DPL INC. BALANCE SHEET PROJECTIONS, 2019 – 2023  
MRO WITHOUT FIC**

	2019	2020	2021	2022	2023
ASSETS					
Current Assets					
Unrestricted Cash and TCIs Held at DPL Inc					
Restricted Cash Held at DPL Inc					
Cash Held at Subsidiary Level					
Accounts Receivable					
Inventory - Fuel and Raw Materials					
Inventory - Spare Parts and Supplies					
General Taxes Applicable to Future Years					
Regulatory Assets					
Other Current Assets - Fixed					
Total Current Assets					
Property, Plant & Equipment					
Gross Plant in Service					
Construction Work in Progress					
Accumulated Depreciation					
Net PP&E					
Other Non-Current Assets					
Deferred Financing Costs					
Other Non-Current Assets - Fixed					
Unrealized Loss on Pension					
Loss on Reacquired Debt					
Acquisition Asset Net of Amortization					
Other Deferred Assets					
Goodwill					
Total Other Non-Current Assets					
TOTAL ASSETS					

EXHIBIT RJM-37B

DPL INC. BALANCE SHEET PROJECTIONS, 2019 – 2023  
MRO WITHOUT FIC

	2019	2020	2021	2022	2023
LIABILITIES AND SHAREHOLDERS EQUITY					
Current Liabilities					
Accounts Payable					
Current Portion of Long-Term Debt					
Short-Term Debt					
Current Income Taxes Payable					
Accrued Interest					
Customer Deposits					
Accrued Preferred Stock Dividend					
General Taxes Payable					
Other Current Liabilities - Fixed					
Total Current Liabilities					
Non-Current Liabilities					
Long-Term Debt					
Interest Rate Hedges & Fair Interest Amortization					
Accumulated Deferred Income Taxes					
Taxes Payments Forgiven by Parent					
Asset Retirement Obligation					
General Taxes Payable - Non-Current					
Unamortized Investment Tax Credit					
Regulatory Liabilities					
Pension & Benefit					
Other Non-Current Liabilities - Fixed					
Total Non-Current Liabilities					
Shareholders' Equity					
Additional Paid-in Capital					
Cumulative Parent Equity Infusion					
Retained Earnings (Accumulated Deficit)					
Total Common Shareholders' Equity (Deficit)					
Non-Controlling Interests (Preferred Stock)					
Total Stockholders' Equity (Deficit)					
TOTAL CAPITALIZATION AND LIABILITIES					
<u>Notes &amp; Sources:</u>					
In thousands.					
From internal Company projections.					

EXHIBIT RJM-37C

DPL INC CASH FLOW PROJECTIONS, 2020 – 2023  
MRO WITHOUT FIC

	2020	2021	2022	2023
Operating Activities				
Net Income (Loss)				
Adjustments				
Depreciation and Amortization				
Provision for deferred taxes				
Provision for current taxes				
Current taxes forgiven by parent				
(Decrease) Increase in accounts payable, reg liab				
Decrease (Increase) in accounts receivable, reg assets				
Pension				
Inventory				
Accrued Interest				
Capitalized Interest in Interest Expense				
Equity AFUDC in Other Expense / (Income)				
Customer Deposits				
Net General Taxes Payable				
Investment Tax Credits				
Net Cash Provided by Operating Activities				
Investing Activities				
Capital expenditures				
Other Investing Activities				
Net Cash Used in Investing Activities				
Financing Activities				
Net borrowings under revolving credit facilities				
Issuance/(Retirement) of LT Debt				
Debt Issuance Fees				
Preferred Stock Dividends Paid				
Repayment of Forgiven Tax Liability				
Equity Infusion				
Dividends Paid to AES Corp				
Net Cash Provided by / (Used for) Financing Activities				
(Decrease) Increase in Cash and Cash Equivalents				
Increase in Cash Held at Subsidiary Level				
Increase in Unrestricted Cash Held at DPL Inc				

Notes & Sources:

In thousands.

From internal Company projections.

EXHIBIT RJM-38A

DP&L INCOME STATEMENT PROJECTIONS, 2020 – 2023

MRO [REDACTED]

	2020	2021	2022	2023
Total Transmission Revenues	[REDACTED]			
Total Distribution Revenues				
Total SSO Revenues				
FIC Revenue				
Total DP&L Legacy Generation Revenues				
Total Revenues	[REDACTED]			
Total Transmission COGS				
Total Distribution COGS				
Total SSO COGS				
Total DP&L Legacy Generation COGS				
Total Cost of Revenues	[REDACTED]			
Gross Margin				
Direct O&M Expense				
Indirect O&M Expense				
General Taxes				
Total Operating Expenses	[REDACTED]			
Operating EBITDA				
Depreciation and Amortization				
Operating Income				
Interest Expense				
Interest (Income) - Other				
Other Expense / (Income)				



**EXHIBIT RJM-38A**

**DP&L INCOME STATEMENT PROJECTIONS, 2020 – 2023**

**MRO** [REDACTED]

	2020	2021	2022	2023
Income before taxes, MI & EE	[REDACTED]			
Current Income Tax Expense (Benefit)				
Deferred Income Tax Expense (Benefit)				
Total Income Taxes (Benefits)				
Net Income				
Preferred Stock Dividend (Accrued)				
Net Income Available to Parent				
Dividend to Parent	[REDACTED]			
Retained Earnings				

Notes & Sources:

In thousands.

From internal Company projections.

**EXHIBIT RJM-38B**

**DP&L BALANCE SHEET PROJECTIONS, 2019 – 2023**

**MRO** [REDACTED]

	2019	2020	2021	2022	2023
<b>ASSETS</b>	[REDACTED]				
Current Assets					
Unrestricted Cash Held at DP&L					
Restricted Cash Held at DP&L					
Accounts Receivable					
Inventory - Fuel and Raw Materials					
Inventory - Spare Parts and Supplies					
General Taxes Applicable to Future Years					
Regulatory Assets					
Other Current Assets - Fixed					
<b>Total Current Assets</b>					
Gross Plant in Service					
Construction Work in Progress					
Accumulated Depreciation					
<b>Net PP&amp;E</b>					
Other Non-Current Assets - Fixed					
Loss on Reacquired Debt					
Deferred Financing Costs					
Unrealized Loss on Pension - Fixed					
Other Deferred Assets - Fixed					
<b>Total Deferred and Non-Current Assets</b>					
<b>TOTAL ASSETS</b>					

**EXHIBIT RJM-38B**

**DP&L BALANCE SHEET PROJECTIONS, 2019 – 2023**

**MRO** [REDACTED]

	2019	2020	2021	2022	2023
LIABILITIES AND SHAREHOLDER'S EQUITY	[REDACTED]				
Accounts Payable					
Current Portion of Long-Term Debt					
Short-Term Debt					
Current Income Taxes Payable					
Accrued Interest					
Customer Deposits					
Accrued Preferred Stock Dividend					
General Taxes Payable					
Other Current Liabilities - Fixed					
Total Current Liabilities					
Long Term Debt					
Interest Rate Hedges					
Accumulated Deferred Income Taxes					
Asset Retirement Obligation					
General Taxes Payable - Non-Current					
Unamortized Investment Tax Credit					
Regulatory Liabilities					
Pension & Benefit					
Other Non-Current Liabilities - Fixed					
Total Deferred Credits & Non-Current Liabilities					
Additional Paid In Capital					
Retained Earnings (Accumulated Deficit)					
Total Common Shareholder's Equity					
Preferred Stock					
TOTAL LIABILITIES AND SHAREHOLDER'S EQUITY					

Notes & Sources:

In thousands.

Additional Paid in Capital is equivalent to Total Paid in Capital plus Total Accumulated Other Comprehensive Income (Loss).

From internal Company projections.

EXHIBIT RJM-38C

DP&L CASH FLOW PROJECTIONS, 2020 – 2023

MRO [REDACTED]

	2020	2021	2022	2023
Operating Activities				
Net Income				
Adjustments				
Depreciation and Amortization				
Deferred Income Taxes				
Current Income Taxes				
Accounts Payable, Regulatory Liabilities				
Accounts Receivable, Regulatory Assets				
Pension				
Inventory				
Accrued Interest				
Capitalized Interest in Interest Expense				
Equity AFUDC in Other Expense / (Income)				
Customer Deposits				
Net General Taxes Payable				
Investment Tax Credits				
Net cash provided by operating activities				
Investing Activities				
Capital expenditures				
Other Investing Activities				
Net cash used for investing activities				
Financing Activities				
Issuance/(Retirement) of LT Debt				
Debt issuance fees				
Issuance/(Retirement) of Short-term Debt				
Preferred Stock Dividends Paid				
Equity Infusion				
Dividend paid to parent				
Net cash provided by financing activities				
Cash and Temporary Cash Investments				
(Decrease) Increase in Cash and Cash Equivalents				

Notes & Sources:

In thousands.

From internal Company projections.

EXHIBIT RJM-39A

DPL INC. INCOME STATEMENT PROJECTIONS, 2020 – 2023  
MRO [REDACTED]

	2020	2021	2022	2023
Total Retail Revenues	[REDACTED]			
FIC Revenue				
Generation Sales				
Energy Sales				
Capacity Sales				
Ancillary Services				
Other Generation Revenues				
Total Generation Revenues				
Total Other Revenues				
Total Revenues				
Cost of Revenues				
Fuel Related Costs				
Electricity Purchased For Resale				
Intercompany and Other Cost Of Sales				
Chemicals, Utilities, Supplies for Production				
Var Transmission Charges and Other Mkt Rel Fees				
Environmental Allowances				
Total Cost of Revenues				
Gross Margin				

EXHIBIT RJM-39A

DPL INC. INCOME STATEMENT PROJECTIONS, 2020 – 2023

MRO [REDACTED]

	2020	2021	2022	2023
O&M Expenses	[REDACTED]			
Salaries Wages and Benefits				
Contract Services Consulting Costs				
Other Fixed Operating Costs				
Provision For Bad Debt				
Taxes Other than Income Taxes				
Total Operating Expenses				
Operating EBITDA				
Total Depreciation, Depletion, and Amortization				
Operating Income				
Interest Expense	[REDACTED]			
Interest (Income) - Other				
Other Expense / (Income)				
Goodwill/Asset Impairment				
Income Before Taxes, MI & EE				
Current Income Tax Expense (Benefit)				
Deferred Income Tax Expense (Benefit)				
Total Income Taxes (Benefits)				
Net Income				
Preferred Stock Dividend (Accrued)	[REDACTED]			
Net Income Attributable to AES				
Dividend to AES				
Permanent Forgiveness of Income Tax				
Retained Earnings				

Notes & Sources:  
In thousands.  
From internal Company projections.

EXHIBIT RJM-39B

DPL INC. BALANCE SHEET PROJECTIONS, 2019 – 2023

MRO [REDACTED]

	2019	2020	2021	2022	2023
ASSETS	[REDACTED]				
Current Assets					
Unrestricted Cash and TCIs Held at DPL Inc					
Restricted Cash Held at DPL Inc					
Cash Held at Subsidiary Level					
Accounts Receivable					
Inventory - Fuel and Raw Materials					
Inventory - Spare Parts and Supplies					
General Taxes Applicable to Future Years					
Regulatory Assets					
Other Current Assets - Fixed					
Total Current Assets					
Property, Plant & Equipment					
Gross Plant in Service					
Construction Work in Progress					
Accumulated Depreciation					
Net PP&E					
Other Non-Current Assets					
Deferred Financing Costs					
Other Non-Current Assets - Fixed					
Unrealized Loss on Pension					
Loss on Reacquired Debt					
Acquisition Asset Net of Amortization					
Other Deferred Assets					
Goodwill					
Total Other Non-Current Assets					
TOTAL ASSETS					

EXHIBIT RJM-39B

DPL INC. BALANCE SHEET PROJECTIONS, 2019 – 2023

MRO [REDACTED]

	2019	2020	2021	2022	2023
LIABILITIES AND SHAREHOLDERS EQUITY					
Current Liabilities					
Accounts Payable					
Current Portion of Long-Term Debt					
Short-Term Debt					
Current Income Taxes Payable					
Accrued Interest					
Customer Deposits					
Accrued Preferred Stock Dividend					
General Taxes Payable					
Other Current Liabilities - Fixed					
Total Current Liabilities					
Non-Current Liabilities					
Long-Term Debt					
Interest Rate Hedges & Fair Interest Amortization					
Accumulated Deferred Income Taxes					
Taxes Payments Forgiven by Parent					
Asset Retirement Obligation					
General Taxes Payable - Non-Current					
Unamortized Investment Tax Credit					
Regulatory Liabilities					
Pension & Benefit					
Other Non-Current Liabilities - Fixed					
Total Non-Current Liabilities					
Shareholders' Equity					
Additional Paid-in Capital					
Cumulative Parent Equity Infusion					
Retained Earnings (Accumulated Deficit)					
Total Common Shareholders' Equity (Deficit)					
Non-Controlling Interests (Preferred Stock)					
Total Stockholders' Equity (Deficit)					
TOTAL CAPITALIZATION AND LIABILITIES					

Notes & Sources:

In thousands.

From internal Company projections.



EXHIBIT RJM-39C

DPL INC CASH FLOW PROJECTIONS, 2020 – 2023

MRO [REDACTED]

	2020	2021	2022	2023
Operating Activities				
Net Income (Loss)				
Adjustments				
Depreciation and Amortization				
Provision for deferred taxes				
Provision for current taxes				
Current taxes forgiven by parent				
(Decrease) Increase in accounts payable, reg liab				
Decrease (Increase) in accounts receivable, reg assets				
Pension				
Inventory				
Accrued Interest				
Capitalized Interest in Interest Expense				
Equity AFUDC in Other Expense / (Income)				
Customer Deposits				
Net General Taxes Payable				
Investment Tax Credits				
Net Cash Provided by Operating Activities				
Investing Activities				
Capital expenditures				
Other Investing Activities				
Net Cash Used in Investing Activities				
Financing Activities				
Net borrowings under revolving credit facilities				
Issuance/(Retirement) of LT Debt				
Debt Issuance Fees				
Preferred Stock Dividends Paid				
Repayment of Forgiven Tax Liability				
Equity Infusion				
Dividends Paid to AES Corp				
Net Cash Provided by / (Used for) Financing Activities				
(Decrease) Increase in Cash and Cash Equivalents				
Increase in Cash Held at Subsidiary Level				
Increase in Unrestricted Cash Held at DPL Inc				

Notes & Sources:

In thousands.

From internal Company projections.

**EXHIBIT RJM-40A**

**DP&L INCOME STATEMENT PROJECTIONS, 2020 – 2023**

**MRO** [REDACTED]

	2020	2021	2022	2023
Total Transmission Revenues	[REDACTED]			
Total Distribution Revenues				
Total SSO Revenues				
FIC Revenue				
Total DP&L Legacy Generation Revenues				
Total Revenues	[REDACTED]			
Total Transmission COGS				
Total Distribution COGS				
Total SSO COGS				
Total DP&L Legacy Generation COGS				
Total Cost of Revenues	[REDACTED]			
Gross Margin				
Direct O&M Expense				
Indirect O&M Expense				
General Taxes				
Total Operating Expenses	[REDACTED]			
Operating EBITDA				
Depreciation and Amortization				
Operating Income				
Interest Expense				
Interest (Income) - Other				
Other Expense / (Income)				

**EXHIBIT RJM-40A**

**DP&L INCOME STATEMENT PROJECTIONS, 2020 – 2023**

**MRO** [REDACTED]

	2020	2021	2022	2023
Income before taxes, MI & EE	[REDACTED]			
Current Income Tax Expense (Benefit)				
Deferred Income Tax Expense (Benefit)				
Total Income Taxes (Benefits)				
Net Income				
Preferred Stock Dividend (Accrued)				
Net Income Available to Parent				
Dividend to Parent	[REDACTED]			
Retained Earnings				

Notes & Sources:

In thousands.

From internal Company projections.

**EXHIBIT RJM-40B**

**DP&L BALANCE SHEET PROJECTIONS, 2019 – 2023**

**MRO** [REDACTED]

	2019	2020	2021	2022	2023
<b>ASSETS</b>					
Current Assets					
Unrestricted Cash Held at DP&L					
Restricted Cash Held at DP&L					
Accounts Receivable					
Inventory - Fuel and Raw Materials					
Inventory - Spare Parts and Supplies					
General Taxes Applicable to Future Years					
Regulatory Assets					
Other Current Assets - Fixed					
<b>Total Current Assets</b>					
Gross Plant in Service					
Construction Work in Progress					
Accumulated Depreciation					
<b>Net PP&amp;E</b>					
Other Non-Current Assets - Fixed					
Loss on Reacquired Debt					
Deferred Financing Costs					
Unrealized Loss on Pension - Fixed					
Other Deferred Assets - Fixed					
<b>Total Deferred and Non-Current Assets</b>					
<b>TOTAL ASSETS</b>					

**EXHIBIT RJM-40B**

**DP&L BALANCE SHEET PROJECTIONS, 2019 – 2023**

**MRO** [REDACTED]

	2019	2020	2021	2022	2023
LIABILITIES AND SHAREHOLDER'S EQUITY	[REDACTED]				
Accounts Payable					
Current Portion of Long-Term Debt					
Short-Term Debt					
Current Income Taxes Payable					
Accrued Interest					
Customer Deposits					
Accrued Preferred Stock Dividend					
General Taxes Payable					
Other Current Liabilities - Fixed					
Total Current Liabilities					
Long Term Debt					
Interest Rate Hedges					
Accumulated Deferred Income Taxes					
Asset Retirement Obligation					
General Taxes Payable - Non-Current					
Unamortized Investment Tax Credit					
Regulatory Liabilities					
Pension & Benefit					
Other Non-Current Liabilities - Fixed					
Total Deferred Credits & Non-Current Liabilities					
Additional Paid In Capital					
Retained Earnings (Accumulated Deficit)					
Total Common Shareholder's Equity					
Preferred Stock					
TOTAL LIABILITIES AND SHAREHOLDER'S EQUITY					

Notes & Sources:

In thousands.

Additional Paid in Capital is equivalent to Total Paid in Capital plus Total Accumulated Other Comprehensive Income (Loss).

From internal Company projections.

EXHIBIT RJM-40C

DP&L CASH FLOW PROJECTIONS, 2020 – 2023

MRO [REDACTED]

	2020	2021	2022	2023
Operating Activities				
Net Income				
Adjustments				
Depreciation and Amortization				
Deferred Income Taxes				
Current Income Taxes				
Accounts Payable, Regulatory Liabilities				
Accounts Receivable, Regulatory Assets				
Pension				
Inventory				
Accrued Interest				
Capitalized Interest in Interest Expense				
Equity AFUDC in Other Expense / (Income)				
Customer Deposits				
Net General Taxes Payable				
Investment Tax Credits				
Net cash provided by operating activities				
Investing Activities				
Capital expenditures				
Other Investing Activities				
Net cash used for investing activities				
Financing Activities				
Issuance/(Retirement) of LT Debt				
Debt issuance fees				
Issuance/(Retirement) of Short-term Debt				
Preferred Stock Dividends Paid				
Equity Infusion				
Dividend paid to parent				
Net cash provided by financing activities				
Cash and Temporary Cash Investments				
(Decrease) Increase in Cash and Cash Equivalents				

Notes & Sources:

In thousands.

From internal Company projections.

EXHIBIT RJM-41A

DPL INC. INCOME STATEMENT PROJECTIONS, 2020 – 2023

MRO [REDACTED]

	2020	2021	2022	2023
Total Retail Revenues				
FIC Revenue				
Generation Sales				
Energy Sales				
Capacity Sales				
Ancillary Services				
Other Generation Revenues				
Total Generation Revenues				
Total Other Revenues				
Total Revenues				
Cost of Revenues				
Fuel Related Costs				
Electricity Purchased For Resale				
Intercompany and Other Cost Of Sales				
Chemicals, Utilities, Supplies for Production				
Var Transmission Charges and Other Mkt Rel Fees				
Environmental Allowances				
Total Cost of Revenues				
Gross Margin				

EXHIBIT RJM-41A

DPL INC. INCOME STATEMENT PROJECTIONS, 2020 – 2023

MRO [REDACTED]

	2020	2021	2022	2023
O&M Expenses	[REDACTED]			
Salaries Wages and Benefits				
Contract Services Consulting Costs				
Other Fixed Operating Costs				
Provision For Bad Debt				
Taxes Other than Income Taxes				
Total Operating Expenses				
Operating EBITDA				
Total Depreciation, Depletion, and Amortization				
Operating Income				
Interest Expense	[REDACTED]			
Interest (Income) - Other				
Other Expense / (Income)				
Goodwill/Asset Impairment				
Income Before Taxes, MI & EE				
Current Income Tax Expense (Benefit)				
Deferred Income Tax Expense (Benefit)				
Total Income Taxes (Benefits)				
Net Income				
Preferred Stock Dividend (Accrued)	[REDACTED]			
Net Income Attributable to AES				
Dividend to AES				
Permanent Forgiveness of Income Tax				
Retained Earnings				

Notes & Sources:

In thousands.

From internal Company projections.



EXHIBIT RJM-41B

DPL INC. BALANCE SHEET PROJECTIONS, 2019 – 2023

MRO [REDACTED]

	2019	2020	2021	2022	2023
ASSETS	[REDACTED]				
Current Assets					
Unrestricted Cash and TCIs Held at DPL Inc					
Restricted Cash Held at DPL Inc					
Cash Held at Subsidiary Level					
Accounts Receivable					
Inventory - Fuel and Raw Materials					
Inventory - Spare Parts and Supplies					
General Taxes Applicable to Future Years					
Regulatory Assets					
Other Current Assets - Fixed					
Total Current Assets					
Property, Plant & Equipment					
Gross Plant in Service					
Construction Work in Progress					
Accumulated Depreciation					
Net PP&E					
Other Non-Current Assets					
Deferred Financing Costs					
Other Non-Current Assets - Fixed					
Unrealized Loss on Pension					
Loss on Reacquired Debt					
Acquisition Asset Net of Amortization					
Other Deferred Assets					
Goodwill					
Total Other Non-Current Assets					
TOTAL ASSETS					

EXHIBIT RJM-41B

DPL INC. BALANCE SHEET PROJECTIONS, 2019 – 2023

MRO [REDACTED]

	2019	2020	2021	2022	2023
LIABILITIES AND SHAREHOLDERS EQUITY					
Current Liabilities					
Accounts Payable					
Current Portion of Long-Term Debt					
Short-Term Debt					
Current Income Taxes Payable					
Accrued Interest					
Customer Deposits					
Accrued Preferred Stock Dividend					
General Taxes Payable					
Other Current Liabilities - Fixed					
Total Current Liabilities					
Non-Current Liabilities					
Long-Term Debt					
Interest Rate Hedges & Fair Interest Amortization					
Accumulated Deferred Income Taxes					
Taxes Payments Forgiven by Parent					
Asset Retirement Obligation					
General Taxes Payable - Non-Current					
Unamortized Investment Tax Credit					
Regulatory Liabilities					
Pension & Benefit					
Other Non-Current Liabilities - Fixed					
Total Non-Current Liabilities					
Shareholders' Equity					
Additional Paid-in Capital					
Cumulative Parent Equity Infusion					
Retained Earnings (Accumulated Deficit)					
Total Common Shareholders' Equity (Deficit)					
Non-Controlling Interests (Preferred Stock)					
Total Stockholders' Equity (Deficit)					
TOTAL CAPITALIZATION AND LIABILITIES					

Notes & Sources:

In thousands.

From internal Company projections.

EXHIBIT RJM-41C

DPL INC CASH FLOW PROJECTIONS, 2020 – 2023

MRO [REDACTED]

	2020	2021	2022	2023
Operating Activities				
Net Income (Loss)				
Adjustments				
Depreciation and Amortization				
Provision for deferred taxes				
Provision for current taxes				
Current taxes forgiven by parent				
(Decrease) Increase in accounts payable, reg liab				
Decrease (Increase) in accounts receivable, reg assets				
Pension				
Inventory				
Accrued Interest				
Capitalized Interest in Interest Expense				
Equity AFUDC in Other Expense / (Income)				
Customer Deposits				
Net General Taxes Payable				
Investment Tax Credits				
Net Cash Provided by Operating Activities				
Investing Activities				
Capital expenditures				
Other Investing Activities				
Net Cash Used in Investing Activities				
Financing Activities				
Net borrowings under revolving credit facilities				
Issuance/(Retirement) of LT Debt				
Debt Issuance Fees				
Preferred Stock Dividends Paid				
Repayment of Forgiven Tax Liability				
Equity Infusion				
Dividends Paid to AES Corp				
Net Cash Provided by / (Used for) Financing Activities				
(Decrease) Increase in Cash and Cash Equivalents				
Increase in Cash Held at Subsidiary Level				
Increase in Unrestricted Cash Held at DPL Inc				

Notes & Sources:

In thousands.

From internal Company projections.

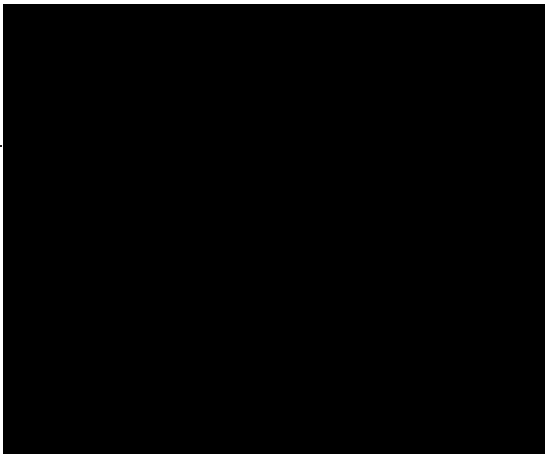
**EXHIBIT RJM-42A**

**DP&L INCOME STATEMENT PROJECTIONS, 2020 – 2023  
ESP WITH RSC**

	2020	2021	2022	2023
Total Transmission Revenues				
Total Distribution Revenues				
Total SSO Revenues				
RSC Revenue				
Total DP&L Legacy Generation Revenues				
Total Revenues				
Total Transmission COGS				
Total Distribution COGS				
Total SSO COGS				
Total DP&L Legacy Generation COGS				
Total Cost of Revenues				
Gross Margin				
Direct O&M Expense				
Indirect O&M Expense				
General Taxes				
Total Operating Expenses				
Operating EBITDA				
Depreciation and Amortization				
Operating Income				
Interest Expense				
Interest (Income) - Other				
Other Expense / (Income)				

**EXHIBIT RJM-42A**

**DP&L INCOME STATEMENT PROJECTIONS, 2020 – 2023  
ESP WITH RSC**

	2020	2021	2022	2023
Income before taxes, MI & EE				
Current Income Tax Expense (Benefit)				
Deferred Income Tax Expense (Benefit)				
Total Income Taxes (Benefits)				
Net Income				
Preferred Stock Dividend (Accrued)				
Net Income Available to Parent				
Dividend to Parent				
Retained Earnings				

Notes & Sources:

In thousands.

From internal Company projections.

**EXHIBIT RJM-42B**

**DP&L BALANCE SHEET PROJECTIONS, 2019 – 2023  
ESP WITH RSC**

	2019	2020	2021	2022	2023
ASSETS					
Current Assets					
Unrestricted Cash Held at DP&L					
Restricted Cash Held at DP&L					
Accounts Receivable					
Inventory - Fuel and Raw Materials					
Inventory - Spare Parts and Supplies					
General Taxes Applicable to Future Years					
Regulatory Assets					
Other Current Assets - Fixed					
Total Current Assets					
Gross Plant in Service					
Construction Work in Progress					
Accumulated Depreciation					
Net PP&E					
Other Non-Current Assets - Fixed					
Loss on Reacquired Debt					
Deferred Financing Costs					
Unrealized Loss on Pension - Fixed					
Other Deferred Assets - Fixed					
Total Deferred and Non-Current Assets					
TOTAL ASSETS					

**EXHIBIT RJM-42B**

**DP&L BALANCE SHEET PROJECTIONS, 2019 – 2023  
ESP WITH RSC**

	2019	2020	2021	2022	2023
LIABILITIES AND SHAREHOLDER'S EQUITY					
Accounts Payable					
Current Portion of Long-Term Debt					
Short-Term Debt					
Current Income Taxes Payable					
Accrued Interest					
Customer Deposits					
Accrued Preferred Stock Dividend					
General Taxes Payable					
Other Current Liabilities - Fixed					
Total Current Liabilities					
Long Term Debt					
Interest Rate Hedges					
Accumulated Deferred Income Taxes					
Asset Retirement Obligation					
General Taxes Payable - Non-Current					
Unamortized Investment Tax Credit					
Regulatory Liabilities					
Pension & Benefit					
Other Non-Current Liabilities - Fixed					
Total Deferred Credits & Non-Current Liabilities					
Additional Paid In Capital					
Retained Earnings (Accumulated Deficit)					
Total Common Shareholder's Equity					
Preferred Stock					
TOTAL LIABILITIES AND SHAREHOLDER'S EQUITY					

Notes & Sources:

In thousands.

Additional Paid in Capital is equivalent to Total Paid in Capital plus Total Accumulated Other Comprehensive Income (Loss).

From internal Company projections.

EXHIBIT RJM-42C

DP&L CASH FLOW PROJECTIONS, 2020 – 2023  
ESP WITH RSC

	2020	2021	2022	2023
Operating Activities				
Net Income				
Adjustments				
Depreciation and Amortization				
Deferred Income Taxes				
Current Income Taxes				
Accounts Payable, Regulatory Liabilities				
Accounts Receivable, Regulatory Assets				
Pension				
Inventory				
Accrued Interest				
Capitalized Interest in Interest Expense				
Equity AFUDC in Other Expense / (Income)				
Customer Deposits				
Net General Taxes Payable				
Investment Tax Credits				
Net cash provided by operating activities				
Investing Activities				
Capital expenditures				
Other Investing Activities				
Net cash used for investing activities				
Financing Activities				
Issuance/(Retirement) of LT Debt				
Debt issuance fees				
Issuance/(Retirement) of Short-term Debt				
Preferred Stock Dividends Paid				
Equity Infusion				
Dividend paid to parent				
Net cash provided by financing activities				
Cash and Temporary Cash Investments				
(Decrease) Increase in Cash and Cash Equivalents				

Notes & Sources:

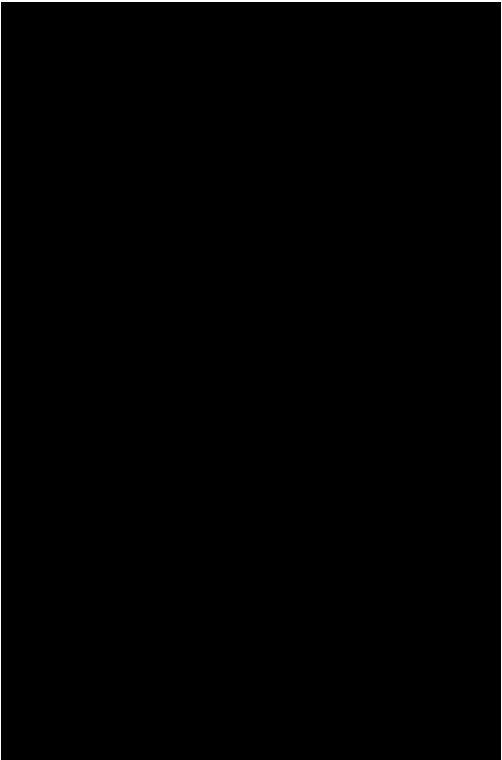
In thousands.

From internal Company projections.



EXHIBIT RJM-43A

DPL INC. INCOME STATEMENT PROJECTIONS, 2020 – 2023  
ESP WITH RSC

	2020	2021	2022	2023
Total Retail Revenues				
RSC Revenue				
Generation Sales				
Energy Sales				
Capacity Sales				
Ancillary Services				
Other Generation Revenues				
Total Generation Revenues				
Total Other Revenues				
Total Revenues				
Cost of Revenues				
Fuel Related Costs				
Electricity Purchased For Resale				
Intercompany and Other Cost Of Sales				
Chemicals, Utilities, Supplies for Production				
Var Transmission Charges and Other Mkt Rel Fees				
Environmental Allowances				
Total Cost of Revenues				
Gross Margin				

**EXHIBIT RJM-43A**

**DPL INC. INCOME STATEMENT PROJECTIONS, 2020 – 2023  
ESP WITH RSC**

	2020	2021	2022	2023
O&M Expenses				
Salaries Wages and Benefits				
Contract Services Consulting Costs				
Other Fixed Operating Costs				
Provision For Bad Debt				
Taxes Other than Income Taxes				
Total Operating Expenses				
Operating EBITDA				
Total Depreciation, Depletion, and Amortization				
Operating Income				
Interest Expense				
Interest (Income) - Other				
Other Expense / (Income)				
Goodwill/Asset Impairment				
Income Before Taxes, MI & EE				
Current Income Tax Expense (Benefit)				
Deferred Income Tax Expense (Benefit)				
Total Income Taxes (Benefits)				
Net Income				
Preferred Stock Dividend (Accrued)				
Net Income Attributable to AES				
Dividend to AES				
Permanent Forgiveness of Income Tax				
Retained Earnings				

Notes & Sources:

In thousands.

From internal Company projections.

**EXHIBIT RJM-43B**

**DPL INC. BALANCE SHEET PROJECTIONS, 2019 – 2023  
ESP WITH RSC**

	2019	2020	2021	2022	2023
ASSETS					
Current Assets					
Unrestricted Cash and TCIs Held at DPL Inc					
Restricted Cash Held at DPL Inc					
Cash Held at Subsidiary Level					
Accounts Receivable					
Inventory - Fuel and Raw Materials					
Inventory - Spare Parts and Supplies					
General Taxes Applicable to Future Years					
Regulatory Assets					
Other Current Assets - Fixed					
Total Current Assets					
Property, Plant & Equipment					
Gross Plant in Service					
Construction Work in Progress					
Accumulated Depreciation					
Net PP&E					
Other Non-Current Assets					
Deferred Financing Costs					
Other Non-Current Assets - Fixed					
Unrealized Loss on Pension					
Loss on Reacquired Debt					
Acquisition Asset Net of Amortization					
Other Deferred Assets					
Goodwill					
Total Other Non-Current Assets					
TOTAL ASSETS					

EXHIBIT RJM-43B

DPL INC. BALANCE SHEET PROJECTIONS, 2019 – 2023  
ESP WITH RSC

	2019	2020	2021	2022	2023
LIABILITIES AND SHAREHOLDERS EQUITY					
Current Liabilities					
Accounts Payable					
Current Portion of Long-Term Debt					
Short-Term Debt					
Current Income Taxes Payable					
Accrued Interest					
Customer Deposits					
Accrued Preferred Stock Dividend					
General Taxes Payable					
Other Current Liabilities - Fixed					
Total Current Liabilities					
Non-Current Liabilities					
Long-Term Debt					
Interest Rate Hedges & Fair Interest Amortization					
Accumulated Deferred Income Taxes					
Taxes Payments Forgiven by Parent					
Asset Retirement Obligation					
General Taxes Payable - Non-Current					
Unamortized Investment Tax Credit					
Regulatory Liabilities					
Pension & Benefit					
Other Non-Current Liabilities - Fixed					
Total Non-Current Liabilities					
Shareholders' Equity					
Additional Paid-in Capital					
Cumulative Parent Equity Infusion					
Retained Earnings (Accumulated Deficit)					
Total Common Shareholders' Equity (Deficit)					
Non-Controlling Interests (Preferred Stock)					
Total Stockholders' Equity (Deficit)					
TOTAL CAPITALIZATION AND LIABILITIES					
Notes & Sources:					
In thousands.					
From internal Company projections.					

EXHIBIT RJM-43C

DPL INC CASH FLOW PROJECTIONS, 2020 – 2023  
ESP WITH RSC

	2020	2021	2022	2023
Operating Activities				
Net Income (Loss)				
Adjustments				
Depreciation and Amortization				
Provision for deferred taxes				
Provision for current taxes				
Current taxes forgiven by parent				
(Decrease) Increase in accounts payable, reg liab				
Decrease (Increase) in accounts receivable, reg assets				
Pension				
Inventory				
Accrued Interest				
Capitalized Interest in Interest Expense				
Equity AFUDC in Other Expense / (Income)				
Customer Deposits				
Net General Taxes Payable				
Investment Tax Credits				
Net Cash Provided by Operating Activities				
Investing Activities				
Capital expenditures				
Other Investing Activities				
Net Cash Used in Investing Activities				
Financing Activities				
Net borrowings under revolving credit facilities				
Issuance/(Retirement) of LT Debt				
Debt Issuance Fees				
Preferred Stock Dividends Paid				
Repayment of Forgiven Tax Liability				
Equity Infusion				
Dividends Paid to AES Corp				
Net Cash Provided by / (Used for) Financing Activities				
(Decrease) Increase in Cash and Cash Equivalents				
Increase in Cash Held at Subsidiary Level				
Increase in Unrestricted Cash Held at DPL Inc				

Notes & Sources:

In thousands.

From internal Company projections.

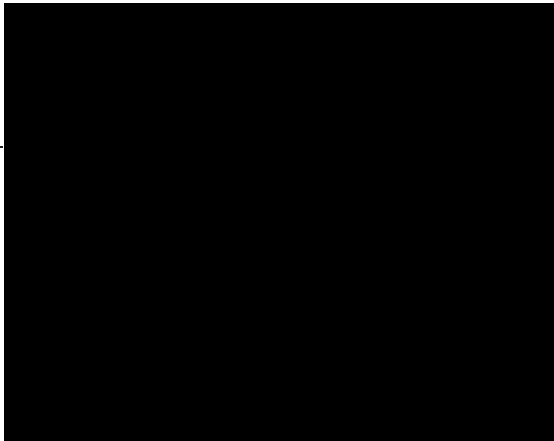
**EXHIBIT RJM-44A**

**DP&L INCOME STATEMENT PROJECTIONS, 2020 – 2023  
ESP WITHOUT RSC**

	2020	2021	2022	2023
Total Transmission Revenues				
Total Distribution Revenues				
Total SSO Revenues				
RSC Revenue				
Total DP&L Legacy Generation Revenues				
<hr/> Total Revenues				
 Total Transmission COGS				
Total Distribution COGS				
Total SSO COGS				
Total DP&L Legacy Generation COGS				
<hr/> Total Cost of Revenues				
 Gross Margin				
 Direct O&M Expense				
Indirect O&M Expense				
General Taxes				
<hr/> Total Operating Expenses				
 Operating EBITDA				
 Depreciation and Amortization				
 Operating Income				
 Interest Expense				
Interest (Income) - Other				
Other Expense / (Income)				

**EXHIBIT RJM-44A**

**DP&L INCOME STATEMENT PROJECTIONS, 2020 – 2023  
ESP WITHOUT RSC**

	2020	2021	2022	2023
Income before taxes, MI & EE				
Current Income Tax Expense (Benefit)				
Deferred Income Tax Expense (Benefit)				
Total Income Taxes (Benefits)				
Net Income				
Preferred Stock Dividend (Accrued)				
Net Income Available to Parent				
Dividend to Parent				
Retained Earnings				

Notes & Sources:

In thousands.

From internal Company projections.

**EXHIBIT RJM-44B**

**DP&L BALANCE SHEET PROJECTIONS, 2019 – 2023  
ESP WITHOUT RSC**

	2019	2020	2021	2022	2023
ASSETS					
Current Assets					
Unrestricted Cash Held at DP&L					
Restricted Cash Held at DP&L					
Accounts Receivable					
Inventory - Fuel and Raw Materials					
Inventory - Spare Parts and Supplies					
General Taxes Applicable to Future Years					
Regulatory Assets					
Other Current Assets - Fixed					
Total Current Assets					
Gross Plant in Service					
Construction Work in Progress					
Accumulated Depreciation					
Net PP&E					
Other Non-Current Assets - Fixed					
Loss on Reacquired Debt					
Deferred Financing Costs					
Unrealized Loss on Pension - Fixed					
Other Deferred Assets - Fixed					
Total Deferred and Non-Current Assets					
TOTAL ASSETS					



**EXHIBIT RJM-44B**

**DP&L BALANCE SHEET PROJECTIONS, 2019 – 2023  
ESP WITHOUT RSC**

	2019	2020	2021	2022	2023
LIABILITIES AND SHAREHOLDER'S EQUITY					
Accounts Payable					
Current Portion of Long-Term Debt					
Short-Term Debt					
Current Income Taxes Payable					
Accrued Interest					
Customer Deposits					
Accrued Preferred Stock Dividend					
General Taxes Payable					
Other Current Liabilities - Fixed					
Total Current Liabilities					
Long Term Debt					
Interest Rate Hedges					
Accumulated Deferred Income Taxes					
Asset Retirement Obligation					
General Taxes Payable - Non-Current					
Unamortized Investment Tax Credit					
Regulatory Liabilities					
Pension & Benefit					
Other Non-Current Liabilities - Fixed					
Total Deferred Credits & Non-Current Liabilities					
Additional Paid In Capital					
Retained Earnings (Accumulated Deficit)					
Total Common Shareholder's Equity					
Preferred Stock					
TOTAL LIABILITIES AND SHAREHOLDER'S EQUITY					

Notes & Sources:

In thousands.

Additional Paid in Capital is equivalent to Total Paid in Capital plus Total Accumulated Other Comprehensive Income (Loss).

From internal Company projections.

EXHIBIT RJM-44C

DP&L CASH FLOW PROJECTIONS, 2020 – 2023  
ESP WITHOUT RSC

	2020	2021	2022	2023
Operating Activities				
Net Income				
Adjustments				
Depreciation and Amortization				
Deferred Income Taxes				
Current Income Taxes				
Accounts Payable, Regulatory Liabilities				
Accounts Receivable, Regulatory Assets				
Pension				
Inventory				
Accrued Interest				
Capitalized Interest in Interest Expense				
Equity AFUDC in Other Expense / (Income)				
Customer Deposits				
Net General Taxes Payable				
Investment Tax Credits				
Net cash provided by operating activities				
Investing Activities				
Capital expenditures				
Other Investing Activities				
Net cash used for investing activities				
Financing Activities				
Issuance/(Retirement) of LT Debt				
Debt issuance fees				
Issuance/(Retirement) of Short-term Debt				
Preferred Stock Dividends Paid				
Equity Infusion				
Dividend paid to parent				
Net cash provided by financing activities				
Cash and Temporary Cash Investments				
(Decrease) Increase in Cash and Cash Equivalents				

Notes & Sources:

In thousands.

From internal Company projections.

EXHIBIT RJM-45A

DPL INC. INCOME STATEMENT PROJECTIONS, 2020 – 2023  
ESP WITHOUT RSC

	2020	2021	2022	2023
Total Retail Revenues				
RSC Revenue				
Generation Sales				
Energy Sales				
Capacity Sales				
Ancillary Services				
Other Generation Revenues				
Total Generation Revenues				
Total Other Revenues				
Total Revenues				
Cost of Revenues				
Fuel Related Costs				
Electricity Purchased For Resale				
Intercompany and Other Cost Of Sales				
Chemicals, Utilities, Supplies for Production				
Var Transmission Charges and Other Mkt Rel Fees				
Environmental Allowances				
Total Cost of Revenues				
Gross Margin				

**EXHIBIT RJM-45A**

**DPL INC. INCOME STATEMENT PROJECTIONS, 2020 – 2023**  
**ESP WITHOUT RSC**

	2020	2021	2022	2023
O&M Expenses				
Salaries Wages and Benefits				
Contract Services Consulting Costs				
Other Fixed Operating Costs				
Provision For Bad Debt				
Taxes Other than Income Taxes				
Total Operating Expenses				
Operating EBITDA				
Total Depreciation, Depletion, and Amortization				
Operating Income				
Interest Expense				
Interest (Income) - Other				
Other Expense / (Income)				
Goodwill/Asset Impairment				
Income Before Taxes, MI & EE				
Current Income Tax Expense (Benefit)				
Deferred Income Tax Expense (Benefit)				
Total Income Taxes (Benefits)				
Net Income				
Preferred Stock Dividend (Accrued)				
Net Income Attributable to AES				
Dividend to AES				
Permanent Forgiveness of Income Tax				
Retained Earnings				

Notes & Sources:

In thousands.

From internal Company projections.

**EXHIBIT RJM-45B**

**DPL INC. BALANCE SHEET PROJECTIONS, 2019 – 2023  
ESP WITHOUT RSC**

	2019	2020	2021	2022	2023
ASSETS					
Current Assets					
Unrestricted Cash and TCIs Held at DPL Inc					
Restricted Cash Held at DPL Inc					
Cash Held at Subsidiary Level					
Accounts Receivable					
Inventory - Fuel and Raw Materials					
Inventory - Spare Parts and Supplies					
General Taxes Applicable to Future Years					
Regulatory Assets					
Other Current Assets - Fixed					
Total Current Assets					
Property, Plant & Equipment					
Gross Plant in Service					
Construction Work in Progress					
Accumulated Depreciation					
Net PP&E					
Other Non-Current Assets					
Deferred Financing Costs					
Other Non-Current Assets - Fixed					
Unrealized Loss on Pension					
Loss on Reacquired Debt					
Acquisition Asset Net of Amortization					
Other Deferred Assets					
Goodwill					
Total Other Non-Current Assets					
TOTAL ASSETS					

EXHIBIT RJM-45B

DPL INC. BALANCE SHEET PROJECTIONS, 2019 – 2023  
ESP WITHOUT RSC

	2019	2020	2021	2022	2023
LIABILITIES AND SHAREHOLDERS EQUITY					
Current Liabilities					
Accounts Payable					
Current Portion of Long-Term Debt					
Short-Term Debt					
Current Income Taxes Payable					
Accrued Interest					
Customer Deposits					
Accrued Preferred Stock Dividend					
General Taxes Payable					
Other Current Liabilities - Fixed					
Total Current Liabilities					
Non-Current Liabilities					
Long-Term Debt					
Interest Rate Hedges & Fair Interest Amortization					
Accumulated Deferred Income Taxes					
Taxes Payments Forgiven by Parent					
Asset Retirement Obligation					
General Taxes Payable - Non-Current					
Unamortized Investment Tax Credit					
Regulatory Liabilities					
Pension & Benefit					
Other Non-Current Liabilities - Fixed					
Total Non-Current Liabilities					
Shareholders' Equity					
Additional Paid-in Capital					
Cumulative Parent Equity Infusion					
Retained Earnings (Accumulated Deficit)					
Total Common Shareholders' Equity (Deficit)					
Non-Controlling Interests (Preferred Stock)					
Total Stockholders' Equity (Deficit)					
TOTAL CAPITALIZATION AND LIABILITIES					

Notes & Sources:

In thousands.

From internal Company projections.

EXHIBIT RJM-45C

DPL INC CASH FLOW PROJECTIONS, 2020 – 2023  
ESP WITHOUT RSC

	2020	2021	2022	2023
Operating Activities				
Net Income (Loss)				
Adjustments				
Depreciation and Amortization				
Provision for deferred taxes				
Provision for current taxes				
Current taxes forgiven by parent				
(Decrease) Increase in accounts payable, reg liab				
Decrease (Increase) in accounts receivable, reg assets				
Pension				
Inventory				
Accrued Interest				
Capitalized Interest in Interest Expense				
Equity AFUDC in Other Expense / (Income)				
Customer Deposits				
Net General Taxes Payable				
Investment Tax Credits				
Net Cash Provided by Operating Activities				
Investing Activities				
Capital expenditures				
Other Investing Activities				
Net Cash Used in Investing Activities				
Financing Activities				
Net borrowings under revolving credit facilities				
Issuance/(Retirement) of LT Debt				
Debt Issuance Fees				
Preferred Stock Dividends Paid				
Repayment of Forgiven Tax Liability				
Equity Infusion				
Dividends Paid to AES Corp				
Net Cash Provided by / (Used for) Financing Activities				
(Decrease) Increase in Cash and Cash Equivalents				
Increase in Cash Held at Subsidiary Level				
Increase in Unrestricted Cash Held at DPL Inc				

Notes & Sources:

In thousands.

From internal Company projections.

**This foregoing document was electronically filed with the Public Utilities**

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