PUBLIC

BEFORE THE

PUBLIC UTILITIES COMMISSION OF OHIO

THE DAYTON POWER AND LIGHT COMPANY

CASE NO. 16-0395-EL-SSO CASE NO. 16-0396-EL-ATA CASE NO. 16-0397-EL-AAM

DIRECT TESTIMONY
OF R. JEFFREY MALINAK

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

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PUBLIC UTILITIES COMMISSION OF OHIO DIRECT TESTIMONY OF

R. JEFFREY MALINAK

ON BEHALF OF THE DAYTON POWER AND LIGHT COMPANY

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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., a national economic and financial consulting
- 5 services firm. My business address is 800 17th Street NW, Washington, DC 20006.

6 Q. What is the purpose of your testimony?

7 A. My testimony focuses on two topics:

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- I analyze the financial condition and integrity of both DPL Inc. ("DPL") and its subsidiary, The Dayton Power and Light Company ("DP&L"). I perform this analysis under two different assumptions regarding the approval of the Distribution Modernization Rider ("DMR") in the proposed ESP.
 - I evaluate whether the proposed ESP in this case is "more favorable in the aggregate" than the expected results from an MRO.

14 Q. What is your educational and work background?

I have over 25 years of experience in the field of economic and financial consulting, in which I have provided microeconomic, finance and accounting consulting advice and other services to attorneys and companies in both litigation and non-litigation settings.

My main areas of expertise are financial economics and valuation of corporations and other assets. I spent approximately seven years of my career at Putnam, Hayes & Bartlett, Inc. (PHB), an economic and financial consulting firm with large consulting practices in

¹ I will refer to both entities together as the "Company."

the energy industry and other regulated industries. While at PHB, approximately half of my time was spent on litigation matters and regulatory proceedings, including rate cases, in the electric utility and energy sectors. My work on these matters included revenue requirements modeling; analysis of the economics of coal mining and transportation; analysis of the operations and economics of nuclear, coal, wood scrap, and natural gas power plants; forecasting of load and related generation capacity requirements; assessment of the cost of capital for generation and for transmission and distribution (both electric and natural gas); calculation of the cost of compliance with environmental regulations; modeling and forecasting of emission allowance prices; and other topics. Since joining Analysis Group in the mid-1990s, I have continued to work on projects in the energy and environmental economics areas, including regulatory matters.

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

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

17 A. Yes. I testified on behalf of DP&L in Case No. 12-426-EL-SSO.

18 Q. How does your experience relate to your testimony in this proceeding?

As noted above, I testified before the PUCO in Case No. 12-426-EL-SSO et al. My testimony in that case focused on the more favorable in the aggregate test, which is one of the two issues I address here. Also in that case, I provided support to Dr. William Chambers, who testified on the financial integrity and financial condition of DP&L. I

also provided rebuttal testimony on these latter two issues. More generally, I have substantial prior experience with analysis of economic and financial issues in the energy sector and with the analysis of the economic impact of different rate regimes on various stakeholders, including customers.

5 II. SUMMARY OF MAIN CONCLUSIONS

6 Q. Can you briefly describe the proposed DMR?

- 7 A. The proposed DMR is a \$145 million non-bypassable charge for seven years, from 20178 2023. As described by Witness Jackson, the purposes of the DMR are to "ensure: (a) that
 9 both DPL and DP&L can reach an appropriate capital structure and maintain their
 10 financial integrity, and (b) that DP&L has access to equity and debt in order to finance
 11 transmission and distribution infrastructure modernization investments."
- Q. Please summarize the main conclusions that you have reached regarding the financial condition and integrity of DPL and DP&L without the proposed DMR.²
- A. Absent the DMR, I project that the financial condition and integrity of DPL would remain impaired throughout the forecast period 2017 through 2023. Furthermore, DPL's impaired condition without the DMR would place a strain on the financial condition and integrity of DP&L. As described below, the credit rating agencies consider the financial condition of a utility holding company when assigning a utility credit rating, and vice versa. Moody's currently applies its maximum three-notch differential to the indicated grid-based credit ratings for DPL and DP&L. Thus, changes in DPL's future financial

² I define the terms "financial condition" and "financial integrity" later in this testimony. The results "without the DMR" would also apply to an MRO that lacked a non-bypassable financial integrity charge.

integrity and credit ratings will affect DP&L, as well as vice versa. This notching methodology employed by Moody's caps DP&L's rating based on its relationship with DPL. Similarly, Standard & Poor's ("S&P") does not recognize any distinction at all between a utility and its parent, instead assigning to both entities the lower of the standalone ratings for each entity.

Q. What are your bases for this conclusion?

A.

First, if one examines the current financial condition of both DPL and DP&L, it is evident that both DPL's and DP&L's financial integrity is already impaired. Notably, both Companies already have "junk" ratings by S&P and are on negative outlook at all three agencies. The impact of the Company's financial impairment can be seen in its financial profile (\$645 million of short term, variable rate debt), which is putting the Company's stakeholders at risk, including DP&L customers. And, just as importantly, given its financial profile, the Company has limited or no access to reasonably priced debt capital or equity capital to finance growth or significant infrastructure improvements and grid modernization. DP&L recently refinanced its \$445 million debt facility, which includes explicit terms that place limitations on DP&L's ability to issue new debt. I understand that this is an unusual covenant for a regulated utility and exists only as a means of credit protection for DP&L lenders and only because of the precarious financial condition of DP&L.

Second, I have looked prospectively at both companies and considered a number of projected financial metrics, including return on equity ("ROE"), and credit metrics such as cash flow to debt and the indicative credit ratings. I also have considered the additional

1 borrowing that would be necessary to maintain DP&L's projected operational and maintenance ("O&M") and capital expenditures in light of the Company's debt 2 3 covenants. 4 The projected ROE for DP&L, including the effect of an \$857 million asset impairment charge in 2016, would average percent over the projection period.³ However, this 5 measure of ROE is overstated from an economic perspective because it does not consider 6 7 the risk of future specific reductions to DP&L's income, including its distribution rates, or declines in the value of its assets. Excluding the impairment charge, DP&L's ROE 8 9 percent. This second ROE measure is akin to a return on invested would average only capital ("ROIC"), and is a measure that recognizes the risk of future declines of the value 10 of DP&L's income or assets. 4 In both cases, these calculated ROEs are the ROE of 11 12 10.5 percent sponsored by a Company Witness in DP&L's most recent distribution rate case. In the case of the second measure of ROE, the rate 13 of the 10.5 percent ROE. In 15 DPL would be forced to

make up the shortfall with other sources of cash, such as cash on hand, attempting to borrow under its short-term credit facility, attempting to issue other new debt, and reducing, most notably DP&L's, capital and/or operating expenditures.

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³ In the first half of 2016, DP&L recognized an \$857 million one-time, non-cash asset impairment charge, contributing to negative net income of -\$498 million for the first six months of 2016 (Exhibit RJM-22A). This negative net income caused DP&L's total shareholders' book equity to decline from \$1.2 to \$0.7 billion (Exhibit RJM-23).

⁴ The projections underlying these ROE calculations assume that the rates requested by DP&L in its distribution rate case will be approved by the PUCO.

For purposes of this testimony, my model assumes that DPL would be able to obtain additional debt financing. However, as discussed below, it is unlikely that such short-term or other financing would be available to DPL or DP&L without the DMR given (a) its projected financially stressed situation in these years, and (b) the significant amounts of DPL debt that will mature in the near future. At a minimum, the cost of any new financing would be higher, which I have reflected in my projections. In addition, reducing capital and/or operating expenditures to generate the necessary cash would be problematic because doing so would have both short- and long-term negative effects on DP&L and the customers it serves.

I have analyzed several important credit metrics that would prevail for DPL and DP&L absent the DMR including Debt/Capital Interest Coverage Cash Flow/Debt and

absent the DMR, including Debt/Capital, Interest Coverage, Cash Flow/Debt, and Retained Cash Flow to Debt. For DPL, these credit metrics are indicative of a rating from 2017 through 2023 based on Moody's standard regulated company methodology. These ratings represent a notches from DPL's current "Ba3" rating. The indicated rating would fall to based on Moody's unregulated company methodology. This or rating would be

⁵ The ratings that I cite in this testimony are "Issuer Credit Ratings," which means they attach to each company, rather than particular debt or other securities. Moody's and the other rating agencies also provide ratings for particular securities, but I do not examine such ratings here. In addition, it is important to note that Moody's uses two particular "grids" of credit metrics, the "Standard Grid" and the "Low Business Risk Grid," to develop its ratings for regulated firms, Moody's currently uses the Standard Grid for regulated entities to rate DPL and DP&L, as do I. However, under the "Without DMR" scenarios I also determine DPL and DP&L ratings using Moody's unregulated company grid because, absent the DMR, DP&L's revenues would be more exposed to market forces and, therefore, riskier.

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16	Q.	Please summarize the main conclusions that you have reached regarding the
17		financial condition and integrity of DPL and DP&L under the proposed ESP with
18		the DMR.
19		A. Under the proposed ESP, the DMR would take effect in 2017 and run through the
20		end of the projection period.

 $^{^6}$ Credit Agreement among DPL Inc., U.S Bank National Association, PNC Bank, National Association, and Bank of America, N.A., July 31, 2015, at 94-95.

DPL.⁷

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This measure of ROE likely overstates ROE from an economic perspective, especially in the early years. Excluding the effect of the impairment charge, DP&L's normalized ROE would average percent over the projection period. This measure of ROE overstates ROE from an economic perspective, because it assumes zero risk of future reductions in DP&L's income, or the value of its assets. Excluding the effect of the impairment charge, DP&L's normalized ROE would percent over the projection period. This ROIC better captures the asymmetric risk of future losses and, therefore, is a useful indicator of DP&L's normalized ROE under the ESP with a DMR. Based on these two indicators, it is reasonable to conclude that the expected ROE under an ESP with a DMR is in the range of the 10.5 percent target ROE from DP&L's distribution rate case. The additional cash flow would also allow the Company to avoid cash flow deficiencies and to service its long-term debt. These results would generate credit metrics for DPL that would cause its indicated ratings in 2017 and to investment grade by 2022. As the DMR would end in 2023, to rise to the credit rating agencies would no longer include it when calculating certain earningsbased credit metrics. For that reason, I also present 2023 results on a normalized basis by excluding the DMR. Prior to 2023, I assume the credit rating agencies would place full weight on the DMR; to the extent that they would discount the DMR as it nears expiration, the indicated credit ratings I calculate for the "with DMR" scenario are too high.

⁷ Exhibit RJM-10.

1	DPL's debt also would be lower with the DMR than without. For example, DPL's
2	consolidated debt would be million in 2023 with the DMR, versus \$ billion
3	without the DMR. The DMR would result in a improvement in DPL's credit
4	rating in 2017, a improvement in 2018-2020, and further improvements
5	resulting in an investment grade rating in 2022. These credit ratings are significant
	improvements over the rating in the no-DMR case.
9	In any
	event, DPL's indicated rating would reach investment grade by 2022,
11	Thus, while DPL would remain below
12	investment grade for much of the projection period with the DMR, its financial condition
13	would be significantly better than its condition without the DMR or a similar charge and,
14	towards the end of the projection period, would achieve investment grade.
15	Similarly, with DMR, DP&L's indicated credit metrics and ratings would improve during
16	the projection period. Furthermore, DP&L would be able to reduce its debt from
17	million without the DMR to million with the DMR, thereby lowering its debt to
18	capital ratio from approximately percent to approximately percent. This would
19	bring DP&L's credit rating in line with those of similarly situated utilities.
20	The improved financial condition of DPL and DP&L would significantly reduce the risk
21	of negative effects on DP&L and the customers it serves due to the weakened financial
22	condition or financial integrity of those entities.

Q. Why is it reasonable for the DMR to be set at a level such that DPL is projected to achieve an investment grade credit rating by the latter part of the projection period, and DP&L is projected to improve on its current low-end investment grade rating?

A. In a sample of 36 peer utility holding companies, only three companies have credit

ratings below investment grade. One of these three companies is DPL, which has the lowest rating in the sample. The large majority of firms have ratings in the A3 to Baa2 range, which is investment grade. In addition, DP&L's low investment grade rating is at the low end for a sample of utilities. Because maintaining a particular investment grade rating has an economic cost, the fact that these firms maintain such a rating shows that investment grade ratings are valuable for the holding companies' and utilities' various stakeholders, including shareholders, creditors, and customers. I project that the proposed DMR will achieve an investment grade rating for DPL, but only towards the end of the projection period, while improving slightly DP&L's relatively low investment grade rating. While the Company's various stakeholders, including DP&L customers, arguably would benefit from a faster transition to investment grade by DPL, the proposed DMR spreads the financial resources required to achieve investment grade over time, producing more gradual changes in electric rates.

Once they are investment grade, or if DPL and DP&L have a path to investment grade with assistance from the DMR, it will translate to reduced risk for customers and enable the Company to more appropriately invest in infrastructure to modernize its transmission and distribution grid.

1	Q.	Please summarize your conclusions regarding the "more favorable in the aggregate"
2		test.
3	A.	I conclude that with the DMR proposed by DP&L, the ESP would be more favorable in
4		the aggregate to DP&L's customers than an MRO. As required by Ohio Rev. Code
5		§ 4928.143(C)(1), I have evaluated both the quantifiable and non-quantifiable benefits
6		and costs of the proposed ESP and a hypothetical MRO. I conduct my analysis under two
7		assumptions regarding the existence of a non-bypassable charge under an MRO and reach
8		the same conclusion in both cases.
9		First, I assume that a non-bypassable financial integrity charge would be available to
10		DP&L under an MRO, and thus would be requested by the company. Such a charge
11		would have much the same financial effect as the DMR under the proposed ESP. Thus, it
12		is reasonable to assume that the financial integrity charge that the PUCO would approve
13		under an MRO would be approximately the same size as the DMR it would approve
14		under an ESP. As a result, the quantifiable cost of the proposed ESP and a hypothetical
15		MRO is approximately the same. However, there are a number of non-quantifiable
16		factors that cause the ESP to be more favorable in the aggregate:
17		1. The DMR would facilitate borrowing to fund investments in grid
18		modernization. While the hypothetical MRO would have a financial integrity
19		charge that would enhance the financial condition and integrity of DPL and
20		DP&L, I understand that there is no provision for grid modernization under
21		the MRO statute that corresponds to Ohio Rev. Code § 4928.143(B)(2)(h) in

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the ESP statute.

1 2. The proposed ESP offers customers protection from excessive charges via the 2 Significantly Excessive Earnings Test ("SEET"). I understand that the SEET 3 does not apply under an MRO. 4 3. The proposed ESP contains a Clean Energy Rider that will facilitate 5 investment in renewable and advanced technologies consistent with Ohio policies. As I expect that the PUCO would not approve such a rider unless its 6 7 benefits outweighed its costs, such a rider would benefit customers. I 8 understand that a rider of this kind is not provided for in the MRO statute. 9 4. The ESP has a Distribution Investment Rider ("DIR") that will provide for 10 capital investment and O&M to maintain and operate DP&L's distribution 11 infrastructure. As I expect that the PUCO would not approve such a rider 12 unless its benefits outweighed its costs, such a rider would benefit customers. 13 Such a rider is not provided for in the MRO statute.

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5. The ESP allows the Company to preserve the option of filing either an MRO or ESP in the future, whereas pursuing the MRO now would foreclose the ability to have an ESP in the future. Assuming that future ESPs could be devised that would be more beneficial to customers than an MRO, customers are better off with the proposed ESP.

Second, I assume that a non-bypassable financial integrity charge would not be allowed under an MRO. In that case, the ESP presents a quantifiable net cost to customers. The nominal cost of the proposed seven \$145 million payments is about \$1.0 billion. Recognizing that the DMR payments are spread over time, the present value of the cost ranges from \$661 million (12 percent discount rate) to \$870 million (4 percent discount

rate). As offsets to this quantifiable cost of the ESP, there are several important nonquantifiable benefits, including the five listed above. Grid modernization, in particular, would provide a number of important benefits, including greater resilience to hazards of all types, enhanced customer experience and access to data, continued and strengthened reliability for everyday operations, enhanced security from an increasing and evolving number of threats, additional affordability, and better flexibility to respond to the variability and uncertainty of conditions at one or more timescales, including a range of energy futures. Most important, though, is the marked difference in the financial condition and integrity of DPL and DP&L under the MRO versus the proposed ESP. Absent a \$145 million annual non-bypassable charge, DPL and DP&L's financial condition and integrity would be impaired, increasing the risk of financial distress and limiting their access to the financing necessary to fund the investments required to provide safe and reliable electric service. In that case, customers would incur reductions in quality of service from delayed or reduced investment in infrastructure, as well as from the diversion of management and regulatory resources from providing electric service to dealing with DPL's financial distress. In addition, DP&L customers likely would see rate increases due to increased financing costs. Furthermore, the ESP would provide for a more stable market than would occur under an MRO without a financial integrity charge by ensuring a financially viable and competitive holding company and transmission and distribution utility.

- 21 Q. Please identify the Exhibits attached to your testimony.
- 22 A. The attached exhibits are as follows:

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- Exhibit RJM-1: DPL Inc. pro forma financial ratios without DMR;
- Exhibit RJM-2: DPL Inc. pro forma financial ratios with DMR;
- Exhibit RJM-3: DP&L pro forma financial ratios without DMR;
- Exhibit RJM-4: DP&L pro forma financial ratios with DMR;
- Exhibit RJM-5: DPL Inc. and DP&L return on equity (ROE) without DMR;
- Exhibit RJM-6: DPL Inc. and DP&L return on equity (ROE) with DMR;
- Exhibit RJM-7: Summary of debt activity without DMR;
- Exhibit RJM-8: Summary of debt activity with DMR;
 - Exhibit RJM-9: DPL Inc. data for financial ratio calculations without DMR;
- Exhibit RJM-10: DPL Inc. data for financial ratio calculations with DMR;
- Exhibit RJM-11: DP&L data for financial ratio calculations without DMR;
- Exhibit RJM-12: DP&L data for financial ratio calculations with DMR;
- Exhibit RJM-13: Moody's ratings tables;

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- Exhibit RJM-14A: DPL Inc. income statement without DMR;
- Exhibit RJM-14B: DPL Inc. balance sheet without DMR;
- Exhibit RJM-14C: DPL Inc. cash flow without DMR;
- Exhibit RJM-15A: DPL Inc. income statement with DMR;
- Exhibit RJM-15B: DPL Inc. balance sheet with DMR;
- Exhibit RJM-15C: DPL Inc. cash flow with DMR;
- Exhibit RJM-16A: DP&L income statement without DMR;
- Exhibit RJM-16B: DP&L balance sheet without DMR;
- Exhibit RJM-16C: DP&L cash flow without DMR;
- Exhibit RJM-17A: DP&L income statement with DMR;
- Exhibit RJM-17B: DP&L balance sheet with DMR;
- Exhibit RJM-17C: DP&L cash flow with DMR;
- Exhibit RJM-18 DPL Inc. and DP&L outstanding debt as of December 31, 2015;
- Exhibit RJM-19 Moody's ratings test as of February 16, 2016;
- Exhibit RJM-20A: DPL Inc. Income Statement, 2010-2016;
- Exhibit RJM-20B: DPL Inc. Income Statement Percentage of Revenue, 2010-2016;
- Exhibit RJM 21: DPL Inc. Balance Sheet, 2010-2016;
- Exhibit RJM 22A: DP&L Income Statement, 2010-2016;

- Exhibit RJM 22B: DP&L Income Statement Percentage of Revenue, 2010-2016;
 Exhibit RJM-23: DP&L Balance Sheet, 2010-2016;
 - Exhibit RJM 24A: DPL Inc. Quarterly Income Statement, Q1 2013 Q2 2016;
- Exhibit RJM 24B: DPL Inc. Quarterly Income Statement, Q1 2013 Q2 2016, Percentage of Revenue;
 - Exhibit RJM 25A: DP&L Inc. Quarterly Income Statement, Q1 2013 Q2 2016;
 - Exhibit RJM 25B: DP&L Inc. Quarterly Income Statement, Q1 2013 Q2 2016, Percentage of Revenue.

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The body of this report also contains a number of figures that summarize information from those exhibits and other relevant sources. I rely upon all of these exhibits as part of my analysis and they are referred to in the text or exhibits.

III. FINANCIAL CONDITION AND INTEGRITY OF DPL and DP&L

A. INTRODUCTION

ratios.

- 15 Q. What do you mean by the terms "financial condition" and "financial integrity?"
- I use the term "financial condition" to refer to an assessment of general financial health
 based on a number of financial variables ranging from income statement items such as
 revenue growth, profitability and cash flow, to balance sheet items such as the amount of
 liquid assets, amount and types of liabilities, debt-to-capital ratios and other financial
 - I use the term "financial integrity" to refer more specifically to an assessment of the likelihood of default, i.e., a credit-risk assessment. Thus, one cannot assess the financial integrity of an entity or enterprise without also analyzing its financial condition. For example, as I use the term, poor financial performance (e.g., low profitability) is an indicator of poor financial condition, which will reduce financial integrity, all else equal.

1 Company witness Jackson has used the following definition of full financial integrity, 2 with which I agree: 3 having sufficient operating cash flow to: (a) pay all normal operating 4 expenses and capital expenditures that are necessary to ensure safe and 5 reliable electric service is provided to customers at a reasonable cost 6 (including but not limited to operating and maintenance expenses, general 7 taxes, general and administrative expenses, pension contributions and 8 other normal course expenses necessary to operate a Company); (b) meet 9 all contractual debt obligations on a timely basis; (c) maintain appropriate 10 capitalization levels and investment grade credit ratings; and (d) have the opportunity to earn a reasonable rate of return on equity.8 11 12 13 This definition identifies the resources and activities necessary to satisfy all of the 14 underlying economic and financial criteria consistent with a sound credit profile for 15 regulated utilities and their holding companies, such as DP&L and DPL. For example, it 16 identifies the need to meet debt obligations in a timely manner after meeting obligations 17 to employees and customers. This is a necessary condition for sound credit. In addition, it 18 identifies the need to maintain an investment grade credit rating. As I discuss below, it is 19 typical for firms of this type to maintain investment grade ratings, indicating that such 20 ratings are necessary for maintaining full financial health for such firms. 21 Is maintaining an investment grade credit rating a reasonable component of Q. 22 financial integrity? 23 Yes. The financial economics literature recognizes several benefits of an investment A. 24 grade credit rating. Of course, a higher rating is associated with a lower default rate.

Many institutions, including banks, insurance companies and broker-dealers, are either

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⁸ Direct Testimony of Craig L. Jackson, Public Utilities Commission of Ohio Case Nos. 16-0395-EL-SSO, 16-0396-EL-ATA, 16-0397-EL-AAM, at 4-5.

⁹ Moody's, Annual Default Study: Corporate Default and Recovery Rates, 1920-2014, March 4, 2015.

prohibited from or limited in their ability to own bonds that are rated below investment grade. 10 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.

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There is evidence that firms adjust their behavior to target credit ratings, especially near the cutoff for investment grade. 11 For example, firms near the investment grade boundary (Baa) have lower leverage than otherwise would be expected in order to gain an investment grade credit rating. 12

I examined the credit ratings for transmission and distribution utilities and their parent corporations and found that very few have credit ratings below investment grade. Figure 1 shows the frequency of various Moody's credit ratings for utility holding companies, including DPL. Of the 36 rated firms as of September 30, 2016, DPL is only one of three that are below investment grade, and is the lowest-rated firm in the sample. Figure 2 shows similar results for integrated utility companies, including DP&L. Of the 45 rated integrated utility companies, DP&L is one of just three firms with the lowest investment grade rating ("Baa3"). The most common rating for these firms is "A3," which is three notches above DP&L's current Moody's rating. Figure 3 shows that none of the 40 regulated transmission and distribution companies in my sample was rated below investment grade.

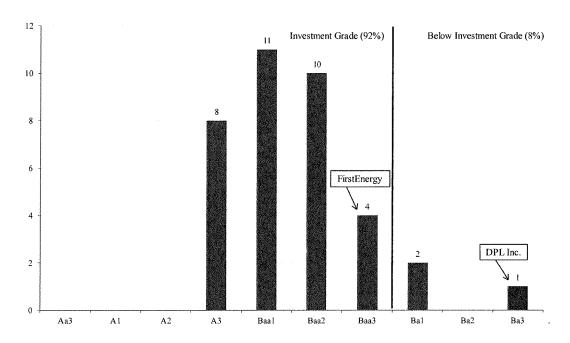
¹⁰ See, e.g., L. White, "The Credit Rating Agencies," Journal of Economic Perspectives 24, 2010, at 213-14.

¹¹ D. Kisgen, "Credit Ratings and Capital Structure," Journal of Financial and Quantitative Analysis 44, 2009, at 1323, 1342; J. Graham and C. Harvey, "The Theory and Practice of Corporate Finance: Evidence from the Field," Journal of Financial Economics 60, 2001, at 210-11.

12 D. Kisgen, "Credit Ratings and Capital Structure," Journal of Finance 61, 2006, at 1035, 1063.

FIGURE 1

UTILITY HOLDING COMPANIES MOODY'S CURRENT LONG-TERM DEBT RATING NUMBER OF COMPANIES BY RATING

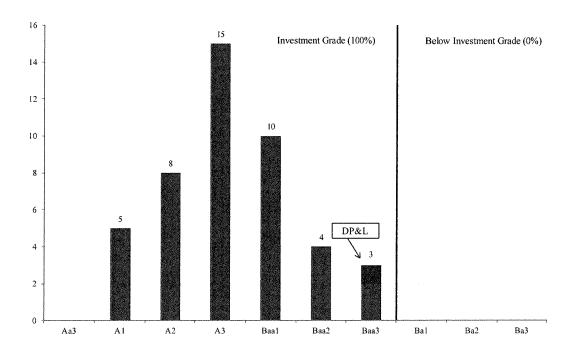


Notes & Sources:

From Moody's. Companies chosen based on Fitch Ratings, "U.S. Utilities, Power & Gas," Financial Peer Study, June 2012. Includes holding companies of both electric and gas distribution utilities.

FIGURE 2

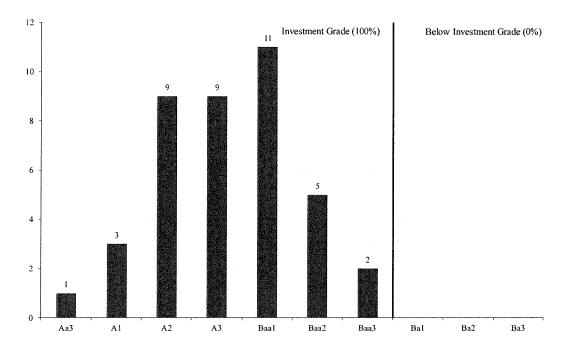
INTEGRATED UTILITY COMPANIES MOODY'S CURRENT LONG-TERM DEBT RATING NUMBER OF COMPANIES BY RATING



Notes & Sources: From Moody's. Companies chosen based on Fitch Ratings, "U.S. Utilities, Power & Gas," Financial Peer Study, June 2012. Includes both electric and gas distribution utilities.

FIGURE 3

TRANSMISSION AND DISTRIBUTION COMPANIES MOODY'S CURRENT LONG-TERM DEBT RATING NUMBER OF COMPANIES BY RATING



Notes & Sources:
From Moody's. Companies chosen based on Fitch Ratings, "U.S. Utilities, Power & Gas," Financial Peer Study, June 2012.
Includes holding companies of both electric and gas distribution utilities.

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

Q. Is maintaining a reasonable return on equity an important element of financial integrity?

A. Yes. Return on equity is a profitability measure that helps one to understand whether a company generates enough revenue for a given level of operating expenses and capital costs, including debt service, to allow equity investors to earn a return that is competitive with returns from other investments with similar risk profiles. Because equity holders are

the last stakeholders in line to receive payment (behind employees, suppliers and creditors), equity investments are riskier than debt investments. Therefore, expected returns on equity are higher than expected returns on debt to compensate for the higher risk. Importantly, in order for the company to maintain its credit and to be able to attract capital, the expected ROE should be sufficient to assure confidence in the company's financial integrity. This requirement is why the PUCO considers ROE in its rate cases, and why I relied on ROE as a measure of financial integrity in my prior testimony before the Commission.

9 Q. What target ROE did you use in your analysis?

A.

In DP&L's distribution rate case, Company Witness Morin indicated that a 10.5 percent ROE was appropriate for DP&L based on a 50 percent debt-to-assets ratio. ¹³ I conclude that it is reasonable to use this rate for DPL or DP&L when operating under an ESP or MRO with a non-bypassable charge such as the DMR or a financial integrity rider because, under that scenario, a substantial percentage of DPL and DP&L's revenues would be more certain and predictable (less risky), similar to the revenues of a regulated transmission and distribution company. However, that rate likely would be too low for scenarios without a DMR or other non-bypassable charge due to their higher risk. Nevertheless, I use 10.5 percent as my benchmark ROE for both the "With DMR" and "Without DMR" scenarios.

¹³ Direct Testimony of Dr. Roger A. Morin, Public Utilities Commission of Ohio, Case Nos.15-1830-EL-AIR, 15-1831-EL-AAM, 15-1832-ATA, at 5.

1 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 indirect subsidiary of AES; and DP&L, the principal subsidiary of DPL and a public utility. DP&L owns a fractional interest in a fleet of six coal-fired plants, as well as peaking electric generating facilities and transmission and distribution facilities.

DP&L's fractional ownership in the six coal-fired plants is summarized below:

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	Ownership (percent)	Summer Capacity (MW)	Gross Plant in Service (\$ mil.)	Net Plant in Service (\$ mil.)
Coal-fired generating fleet		•		
Conesville Unit #4	17	129	20.5	16.0
Killen Unit #2	67	402	659.3	334.2
Miami Fort Units #7 & 8	36	368	369.8	201.0
Stuart Units #1-4*	35	808	802.0	465.0
Zimmer Unit #1	28	371	1,121.8	732.6
OVEC	5	103		
Total		2,181	2,973.4	1,748.8

^{*} Includes diesel.

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In addition, DP&L has full or partial ownership of a number of combustion turbine gasfired peaking plants, diesel plants, which collectively have a summer output of 432 MW.

As a parent to DP&L, these generating assets affect DPL as well.

DP&L has the exclusive right to provide distribution and transmission services to approximately 517,000 customers located in West Central Ohio. Additionally, DP&L offers retail SSO electric service to residential, commercial, industrial and governmental

I	customers in a 6,000 square mile area of West Central Ohio. DP&L sources power for its
2	SSO customers through a competitive bid process. ¹⁴
3	Principal industries located in DP&L's service territory include automotive, food
4	processing, paper, plastic, manufacturing and defense. As a generator, DP&L sells all of
5	its energy and capacity into the wholesale market.
6	DPL owns other subsidiaries. First, AES Ohio Generation ("AOG") owns and operates
7	peaking generating facilities, from which it makes wholesale sales of electricity. Second,
8	Miami Valley Insurance Company ("MVIC") is an insurance company that provides
9	insurance services to DPL and its subsidiaries. Third, Miami Valley Lighting ("MVLT")
10	is a separate company affiliated with DP&L that provides street and outdoor lighting
11	services to customers in the Dayton region. 15 DPL also has a wholly owned business
12	trust, DPL Capital Trust II, formed for issuing trust capital securities to investors. 16
13	Together, in 2015 these businesses account for less than four percent of DPL's total
14	revenues. 17
15	In addition, DPL owned DPL Energy Resources, Inc. ("DPLER"), which sold
16	competitive electric energy and other energy services. DPL agreed to sell DPLER on
17	December 28, 2015 and closed the sale on January 1, 2016. 18

DPL Inc. and DP&L Form 10-Q for the period ending 06/30/16, at 14.

15 https://lightingsimplified.com/

16 DPL Inc. and DP&L Form 10-Q for the period ending 06/30/16, at 14.

17 DPL Inc. and DP&L Form 10-K for the fiscal year ending 12/31/15, at 43 and 49.

¹⁸ DPL Inc. and DP&L Form 10-Q for the period ending 06/30/16, at 5.

- DPL and its subsidiaries employed 1,169 people as of June 30, 2016, of which 1,161
 were employed by DP&L. Approximately 62 percent of all DPL employees are under a
 collective bargaining agreement that expires on October 31, 2017. 19
- 4 Q. Why do you analyze the financial condition and integrity of DPL in addition to DP&L?
- The financial condition and integrity of DPL which depends on its ability to service all 6 A. 7 of its consolidated debt - affects the financial condition and integrity of DP&L. For 8 example, if DPL experiences financial stress, it would have a negative effect on DP&L 9 including, but not limited to, unfavorable changes in DP&L's credit ratings, increased 10 cost of debt/borrowing costs, and reductions or other limits on capital expenditures or 11 O&M that would negatively affect service quality, and redirecting management attention 12 and effort to managing through financial distress. Also, just as importantly, in the event 13 DP&L seeks incremental capital to finance grid modernization, it will require a healthy 14 parent in order to receive equity capital, to complement debt capital, and to finance these 15 modernization investments.
- Q. Please describe the approach that you take to measuring and analyzing the financial
 integrity of DPL.
- A. On a consolidated basis, DPL (including its subsidiaries) had approximately \$2.0 billion in debt as of year-end 2015, and is projected to have approximately \$20 the end of 2016. DP&L has issued its own debt, which is projected to be approximately

¹⁹ DPL Inc. and DP&L Form 10-Q for the period ending 06/30/16, at 14.

at the end of 2016, leaving approximately

in remaining debt at

2 DPL Inc.

Timely and full service of this debt issued by DPL will depend heavily on the cash flow from DP&L, DPL's primary subsidiary and source of operating profits. 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 making DPL's debt subordinated to DP&L's debt in order of payment. Second, DP&L must make the capital and operating expenditures for its transmission and distribution network in order to ensure the delivery of safe and reliable transmission and distribution service. Third, DP&L must pay its share of the ongoing capital expenditures for the coal generating plants in which it owns a partial interest. Fourth, while DP&L's remaining free cash flow will be available to service debt issued by DPL, the amount of those cash flows may be limited by regulation. Thus, the ability of DPL to service its debt and remain a viable firm in the medium to long term will directly depend on the cash flows from DP&L. This concern about debt service is especially strong during the next several years.

²⁰ DPL Inc. would depend to a lesser extent on cash flow from its smaller subsidiaries such as AOG, MVLT, and MVIC. For example, Moody's notes that DP&L (including the generating assets) "is expected to remain the main source of cash flows to service its material amount of holding-company's indebtedness." That is, not the miscellaneous subsidiaries, which comprise less than 4 percent of DPL's revenues. Moody's Investors Service, "Credit Opinion: DPL Inc.," October 13, 2015.

²¹ The term "free cash flow" means net cash flow remaining after payment of all cash costs, including debt service and capital expenditures.

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

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A.

DPL can depend to a lesser extent on cash flow from its gas-fired generation plants and its smaller subsidiaries such as AOG, MVLT, and MVIC.²² However, as stated above, total revenues from these subsidiaries represent about 4 percent of DPL's cash flows and, therefore, are insufficient to meet debt service. 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 or other debt, a reductions in capital expenditures, and/or reductions in operating expenses at any, or all, of its subsidiaries. However, both issuing new debt or reducing capital expenditures and/or operating expenses would be problematic. Specifically, the financial stress on the Company would make issuing new debt at reasonable rates difficult or impossible, and reductions in capital expenditures would have both short- and long-term negative effects on the Company, its subsidiaries (particularly DP&L), and the customers they serve.

Q. Does a utility's financial condition and integrity influence its capital expenditures ("capex")?

17 A. Yes. Companies with credit ratings below investment grade are typically in some degree 18 of financial distress. As a result, they may be forced to make difficult choices between 19 investments in the future and more immediate demands on their cash. To investigate how 20 credit ratings can affect capital expenditures, I measured capex per MWh and per retail 21 electric customer for a sample of electricity transmission and distribution companies

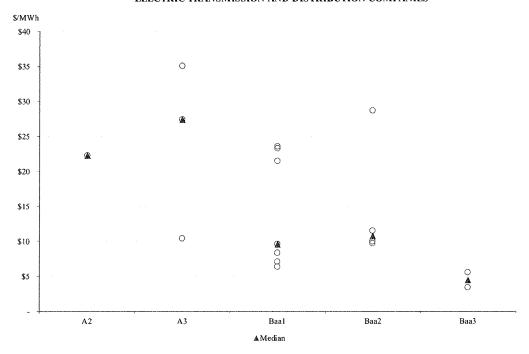
²² As noted previously, Moody's observed that DP&L is DPL's main source of cash flows to service the holding company debt. This observation is consistent with my own analysis as discussed later in my testimony.

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identified by Fitch. I focused on these firms rather than integrated utilities or utility
holding companies in order to avoid confounding the results with capex on generation or
other assets. Figures 4 and 5 show that there is a clear pattern, in which lower-rated
utilities have lower capital expenditures as a function of measures of size. For example,
as shown in Figure 4, the median capital expenditures per MWh for "A2" and "A3"
utilities is about \$25MWh, compared to approximately \$10/MWh or less for "Baa1" to
"Baa3" utilities. Similarly, the median capital expenditures per customer for "A2" and
"A3" electric distribution companies is about \$400-\$600, versus just over \$100 to under
\$300 for "Baa1" to "Baa3" utilities. The "Baa3" utilities (which is DP&L's rating) have
the lowest level of capital expenditures under either measure.

FIGURE 4

CAPEX PER RETAIL MWH ELECTRIC TRANSMISSION AND DISTRIBUTION COMPANIES



Notes & Sources:

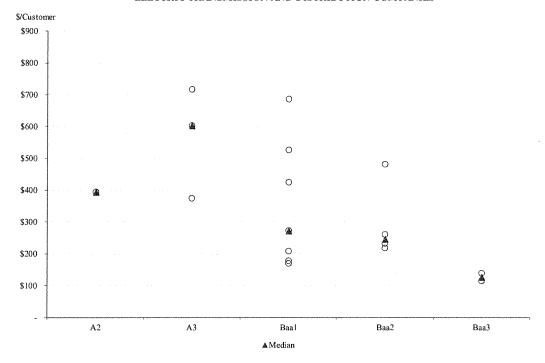
Calculated as Average CapEx for 2014-2015 divided by Average Retail Electric Volume (MWh) for 2014-2015.

CapEx and Average Retail Electric Volume (MWh) from SNL. Credit Ratings from Moody's.

Sample from Figure 2. Only includes Transmission and Distribution Companies for which CapEx, Retail Electric Volume (MWh), and Credit Ratings were available. Excludes gas utilities.

FIGURE 5

CAPEX PER RETAIL ELECTRIC CUSTOMER ELECTRIC TRANSMISSION AND DISTRIBUTION COMPANIES



Notes & Sources:

Calculated as Average CapEx for 2014-2015 divided by Average Retail Electric Customers for 2014-2015.

CapEx and Retail Electric Customers from SNL. Credit Ratings from Moody's.

Sample from Figure 2. Only includes Transmission And Distribution Companies for which CapEx, Retail Electric Customers, and Credit Ratings were available. Excludes gas utilities.

- Q. Is there additional support for an "integrated" approach in which one considers the utility parent's financial condition and integrity?
- A. Yes. My approach is consistent with the Commission's previous adoption of an integrated view of financial condition and integrity. Specifically, in approving the Service Stability Rider ("SSR") in DP&L's prior ESP filing, the Commission found that, "if one

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of the businesses suffers from financial losses, it may impact the entire utility, adversely affecting its ability to provide stable, reliable, or safe retail electric service."²³

Similarly, in the same case, the PUCO rejected intervenors' argument that "competitive generation assets ... are not necessary for DP&L to maintain reliable distribution and transmission service." Also in the same case, the PUCO found that, "As the Commission has previously noted, the SSR and SSR-E are financial integrity charges intended to maintain the financial integrity of the entire company, not just the generation business."

I understand that the Commission's recent Order in the First Energy matter also adopts this "integrated" view. Specifically, in adopting a DMR, the Commission noted that Moody's and S&P consider the parent's rating when rating a regulated utility. For example, the Commission stated that "S&P takes an 'umbrella' approach to credit ratings and that a downgrade to FirstEnergy Corp. would result in a downgrade to the Companies." It also stated that, "Although Moody's rates FirstEnergy Corp. and its affiliates separately, Cleveland Electric Illuminating and Toledo Edison are both one notch above the cutoff for investment grade while Ohio Edison is three notches above

²³ Public Utilities Commission of Ohio, Case No. 12-426-EL-SSO, Opinion and Order, September 4, 2013, at 22. Public Utilities Commission of Ohio, Case No. 12-426-EL-SSO, Fourth Entry on Rehearing, June 4, 2014, at 9.

²⁴ Public Utilities Commission of Ohio, Case No. 12-426-EL-SSO, Opinion and Order, September 4, 2013, at 18, 22.

²⁵ Public Utilities Commission of Ohio, Case No. 12-426-EL-SSO, Fourth Entry on Rehearing, June 4, 2014, at 9. ²⁶ Public Utilities Commission of Ohio, Case No. 14-1297-EL-SSO, Fifth Entry on Rehearing, October 12, 2016, at 162.

- investment grade; and a downgrade to FirstEnergy Corp. would significantly impact the
 Companies."²⁷
- 3 Q. Please describe how the remainder of this section will be structured.
- A. I begin immediately below with a description of DP&L's service territory and the economic environment in which it operates. This description provides useful background and context for my financial analysis. Next, I explain my methodology for analyzing the financial condition and integrity of DPL and DP&L, followed by a discussion of the inputs to my financial projections with and without the DMR. The results of these projections are described at the end of the section.

B. DP&L'S SERVICE TERRITORY AND THE ECONOMIC ENVIRONMENT

12 Q. Please describe DP&L's service area.

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13 A. DP&L serves over 515,000 customers in 24 counties throughout the Miami Valley in

14 West Central Ohio. 28 The service area comprises the majority of 13 counties surrounding

15 Dayton and portions of an additional 11 counties. 29 According to the U.S. Census, the

16 total population of the 13-county primary area was approximately 1.26 million in 2014,

17 virtually unchanged from the 2010 figure.

http://www.dpandl.com/about-dpl/who-we-are/economic-development/.

²⁷ Public Utilities Commission of Ohio, Case No. 14-1297-EL-SSO, Fifth Entry on Rehearing, October 12, 2016, at 162-3.

²⁸ http://www.dpandl.com/about-dpl/who-we-are/the-basics/;

http://www.dpandl.com/about-dpl/who-we-are/economic-development/; The 13 counties include Mercer County, Auglaize County, Darke County, Shelby County, Miami County, Logan County, Champaign County, Union County, Preble County, Montgomery County, Greene County, Fayette County, and Clinton County.

Income levels of the service area population were close to the state average. U.S. Census data indicate that average per capita income between 2010 and 2014 was \$24,817 in the 13-county primary area, as compared with the state average of \$26,520. On a per household basis, the median household income for the state was \$48,849, lower than the \$50,073 average for the 13-county primary area. Thus, on an ability-to-pay basis, the population of the DP&L service area appears to be similar to that of the remainder of Ohio. In a like vein, the unemployment rate for November 2015 showed that Montgomery County was slightly above the state average of 4.7 percent, while the other 12 counties in the 13-county primary area were below the state average, according to the Bureau of Labor Statistics.

Q. What is the economic outlook for DP&L's service area?

A. The economy of the Dayton area has seen a slow but steady recovery since 2010 in jobs, unemployment, and output. Moody's views the stability from Wright-Patterson AFB and local universities, quality healthcare system that serves the local population and the surrounding region, and well-developed manufacturing infrastructure as the strengths of Dayton. DP&L operates in a manufacturing-oriented region, and, as a result, a large part of its load comes from industrial and commercial customers, who tend to be relatively price sensitive. ³⁰

³⁰ https://www.economy.com/metro/precis-snapshot.aspx?g=MDAY.

C. METHODOLOGY

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

One of my primary assignments is to analyze the financial condition and integrity of DPL A. and DP&L under the proposed ESP with the DMR versus without the DMR. As discussed previously, DPL will depend heavily on DP&L to service its debt. Thus, DPL's financial integrity is largely dependent on the financial integrity of DP&L; and conversely, DP&L's financial integrity also depends on the financial integrity of DPL. As described previously, the credit rating agencies explicitly recognize this link in their rating methodologies. I understand that S&P assigns the lower of each entity's standalone rating to both entities. The core methodology that I use is to analyze data from financial projections for 2017 through 2023 based on an integrated financial model I developed for both DPL and DP&L. Integrated financial models include balance sheets, income statements and cash flow statements, all of which are linked with each other in some fashion. For example, balance sheet equity is reduced or increased each year by after-tax net income from the income statement. In a similar fashion, changes in certain balance sheet accounts, such as increases and decreases in accounts receivable, affect the cash flow statement. Use of such an integrated modeling approach provides checks and balances so that financial projections are internally consistent. Based on projections for DPL and DP&L using this integrated model, I am able to

calculate various financial metrics for these entities, which are based on income, balance

- sheet and cash flow statement variables. These metrics allow me to draw conclusions about financial condition and integrity of each entity over time.
- 3 Q. Please describe the interplay between DPL and DP&L in these projections.
- A. DP&L is a wholly owned subsidiary of DPL, so consolidated financial statements for DPL include those of DP&L. DP&L can distribute surplus funds to DPL as a dividend, or it can receive funds from DPL as an equity injection. Each entity issues its own debt, and DPL consolidated debt is the sum of debt that it issued directly and debt that DP&L issued.³¹

9 Q. Please describe the debt held by DPL and DP&L.

10 A. As shown in Exhibit RJM-18, DPL had approximately \$1.25 billion in outstanding debt 11 at the end of 2015, composed of a \$125 million Term Loan, \$130 million in Bonds maturing in 2016, \$200 million of bonds maturing in 2019, \$780 million in Bonds 12 13 maturing in 2021 and \$16 million in a Capital Trust. DP&L had approximately \$786 million in outstanding debt, including \$445 million in First Mortgage Bonds that it 14 15 recently refinanced, \$100 million in 2006 Ohio Air Quality Bonds, \$200 million in Ohio Air Quality VRDNs, an \$18 million Note with Wright Patterson Air Force Base, and a 16 17 \$23 million in Preferred Series A, B, and C.

³¹ In the model of the ESP with the DMR, I adopt the same debt refinancing and retirement assumptions used by Company Witness Craig Jackson. In the model without the DMR, I modify the assumptions about voluntary debt retirement and debt issuances to match the available cash flows. Specifically, I assume that DP&L will pay dividends to DPL, to service and pay down debt, equal to any surplus cash flow, and that DPL will fund its cash shortfall by first drawing on its revolving line of credit until that is exhausted, then issues additional long-term debt. As discussed in the text, DPL likely would be unable to draw on its line of credit or borrow additional funds.

Both DPL and DP&L have financial covenants related to their debt, including Debt/EBITDA, EBITDA/Interest, and Debt/Total Capital as summarized below.³²

	Max. Debt/			Max.
	EBITDA	Min. EBITE)A/Interest	Debt/Capital
Year	DPL	DPL	DP&L	DP&L
2017	7.25	2.10	2.50	0.75
2018	7.25	2.10	2.50	0.75
2019	6.25	2.25	2.50	0.75
2020	5.75	2.25	2.50	0.75

When DPL is facing challenges in servicing its debt, it will have to choose to (a) issue new debt, either through drawing on its short-term debt instruments or otherwise raising new debt, (b) reduce capital investments or operating expenses at its subsidiaries in order to increase distributable cash flows, and/or (c) cut other costs at its subsidiaries or undertake other actions to generate additional cash. As explained by Witness Jackson, I understand that the Company has already pursued cost cutting and "these actions will prove to be insufficient to allow DPL and DP&L to maintain their financial integrity" absent the DMR.³³ Reducing capital expenditures is problematic given safety and reliability priorities. Further, particularly with respect to DP&L's generating assets, Fitch describes those expenditures as already being the "bare minimum."³⁴

³² Credit Agreement among DPL Inc., U.S Bank National Association, PNC Bank, National Association, and Bank of America, N.A., July 31, 2015, at 94-95; Credit Agreement among Dayton Power and Light Company, PNC Bank, National Association, Fifth Third Bank, and Bank Of America, N.A., July 31, 2015, at 79.

³³ Direct Testimony of Craig L. Jackson, Public Utilities Commission of Ohio Case Nos. 16-0395-EL-SSO, 16-0396-EL-ATA, 16-0397-EL-AAM, at 18-19.

³⁴ Fitch Ratings, "DPL Inc. and Dayton Power & Light Company," October 7, 2014, at 2. Fitch's comment is a bit unclear, but it appears to refer to DP&L's recent capital expenditures on its coal-fired generating assets (referencing "the anticipated transfer of these assets to a nonregulated affiliate.")

- As a result, I have adopted additional debt issuance as the modeling convention that
 balances the sources and uses of cash. It is important to recognize that the results of my
 analysis <u>assume</u> that DPL will be able to access such additional debt financing.
 Evaluating the projected financial integrity therefore requires some discussion of whether
 this assumed debt issuance activity is even plausible.
- Q. What financial metrics do you use to evaluate the financial condition and financial
 integrity of DPL and DP&L?
 - A. One financial metric I consider for measuring the financial condition is Return on Equity (ROE). The Commission considers ROE in its rate cases, and I relied on ROE in my prior testimony before the Commission. I also consider (a) free cash flow metrics (b) certain credit metrics, including Interest Coverage, Cash Flow / Debt, Retained Cash Flow / Debt and Debt / Capital (each as defined below) and (c) the theoretical credit rating and any changes thereof. Credit ratings are a summary measure of financial integrity, and are based on a number of the financial metrics discussed, as well as the professional judgment of the debt rating agencies.

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

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A. The most recent credit rating reports from Moody's for DPL and DP&L are from August 5, 2016. At that time, Moody's rated DPL "Ba3" (equivalent to S&P rating "BB-") and rated DP&L "Baa3" (equivalent to S&P rating "BBB-"), both with a negative outlook. The ratings from Fitch and S&P are similar and also have negative outlooks: DPL is

³⁵ Moody's Investors Service, Credit Opinion: DPL Inc., August 11, 2016; Moody's Investors Service, Credit Opinion: Dayton Power & Light Company, August 11, 2016.

currently rated "B+" by Fitch and "BB" by S&P.³⁶ DP&L is rated "BB+" by Fitch and "BB" by S&P.³⁷ Fitch noted that DPL's rating outlook "can be stabilized if prospective rate relief is forthcoming, such that DPL's consolidated adjusted debt-to-operating EBITDAR can sustain comfortably below 6x and/or FFO-lease adjusted leverage below 6.5x." Of note, the negative outlook on these ratings followed the Ohio Supreme Court's decision striking down the SSR, of which at least \$37 million will no longer be available to DP&L. Fitch noted its belief that "PUCO will ultimately authorize an alternative rider for DP&L to mitigate the Ohio Supreme Court ruling." The August 5, 2016 corporate credit ratings from the three major agencies are summarized in the table below using the S&P rating scale for comparison purposes.

	DPL		DP&L	
	Rating	Outlook	Rating	outlook
Moody's (S&P scale)	BB-	negative	BBB-	negative
Fitch	B+	negative	BB+	negative
S&P	BB	negative	BB	negative

11 Q. What is the significance of the negative outlook?

12 A. The outlook indicates the potential direction of ratings in the short to medium term. A
13 negative outlook means that the rating may be downgraded. Typically, rating agencies
14 identify potential future developments that may, individually or collectively, lead to a
15 negative rating action. In particular, Fitch revised DPL's and DP&L's outlook to negative
16 and explained that, "[r]ating downgrades at DPL could be triggered by the absence of

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³⁶ SNL Energy.

³⁷ SNL Energy.

³⁸ Fitch Ratings, "Fitch Affirms DPL and DP&L; Outlook Revised to Negative," July 12, 2016

³⁹ Fitch Ratings, "Fitch Affirms DPL and DP&L; Outlook Revised to Negative," July 12, 2016

⁴⁰ Fitch Ratings, "Fitch Affirms DPL and DP&L; Outlook Revised to Negative," July 12, 2016.

timely regulatory support in Ohio and/or continued challenging market conditions for its
merchant generation business. Deterioration of DPL's consolidated adjusted debt-tooperating EBITDAR ratio on a sustained basis to above 7x or FFO-lease adjusted
leverage sustained above 7.5x without a visible path for recovery could result in rating
downgrades."⁴¹

6 Q. How did you determine indicated credit ratings for DPL?

- A. I have created financial projections for 2017 through 2023 for DPL and DP&L. From those projections, I calculate four key metrics that Moody's uses to determine credit ratings for DPL and other energy companies:⁴²
- 10 1. Interest Coverage
- 11 2. Cash Flow / Debt
- 12 3. Retained Cash Flow / Debt
- 13 4. Debt / Capital

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- For each of these variables, I summarize in Exhibit RJM-13 the range of values that

 Moody's considers for each credit rating.
 - Interest Coverage is calculated as the ratio of cash flow from operations before interest expense and changes in working capital (but after changes in other assets and liabilities such as regulatory capital and cash collateral) relative to interest expense. The ratio indicates the amount of cash flow available to pay interest, capital expenditures and other obligations per dollar of interest due, so a higher ratio is indicative of a higher credit rating. Moody's indicates that Ba-rated unregulated power companies tend to have

⁴¹ Fitch Ratings, "Fitch Affirms DPL and DP&L; Outlook Revised to Negative," July 12, 2016.

⁴² See, e.g., Moody's Investors Service, Credit Opinion: DPL Inc., October 13, 2015.

1 Interest Coverage ratios of 2.8x to 4.2x and similarly rated regulated utilities tend to have ratios of 2.0x to 3.0x.⁴³ 2 3 Cash Flow / Debt is the ratio of cash flow from operations before changes in working capital relative to debt. 44 A higher ratio indicates a stronger financial position and a 4 5 higher credit rating. Moody's indicates that Ba-rated unregulated power companies tend to have Cash Flow / Debt ratios of 12 percent to 20 percent and similarly rated regulated 6 utilities tend to have ratios of 5 percent to 13 percent.⁴⁵ 7 Retained Cash Flow / Debt is similar to Cash Flow / Debt, except the numerator subtracts 8 9 dividend payments from Cash Flow, For DPL, the projections do not include any 10 dividends so there is no difference in the two measures of cash flows. Moody's indicates 11 that Ba-rated unregulated power companies tend to have Retained Cash Flow / Debt ratios of 8 percent to 15 percent and similarly rated regulated utilities tend to have ratios 12 of 0 percent to 9 percent. 46 13 14 Debt / Capital is calculated as the ratio of debt to capital (which includes short- and long-15 term debt, common equity, preferred stock and deferred taxes). The ratio indicates the 16 degree of financial leverage. A higher ratio (greater leverage) is indicative of a lower

⁴³ Moody's Investors Service (2014) Rating Methodology for Unregulated Utilities and Unregulated Power Companies, at 36; Moody's Investors Service (2013) Rating Methodology for Regulated Electric and Gas Utilities, at 38. I focus on a Ba rating in order to maintain consistency with DPL Inc.'s current rating, which is based on DP&L owning the coal-fired generating assets.

⁴⁴ For DPL, I subtract income tax from operating cash flow, because operating cash flow excludes income tax due to AES's forgiveness of taxes due from DPL. See Direct Testimony of Craig L. Jackson, Public Utilities Commission of Ohio Case Nos. 16-0395-EL-SSO, 16-0396-EL-ATA, 16-0397-EL-AAM, at 12.

⁴⁵ Moody's Investors Service (2014) Rating Methodology for Unregulated Utilities and Unregulated Power Companies, at 36; Moody's Investors Service (2013) Rating Methodology for Regulated Electric and Gas Utilities, at 38.

⁴⁶ Moody's Investors Service (2014) Rating Methodology for Unregulated Utilities and Unregulated Power Companies, at 36; Moody's Investors Service (2013) Rating Methodology for Regulated Electric and Gas Utilities, at 38.

credit rating. Moody's indicates that Ba-rated regulated utilities tend to have *Debt / Capital* ratios of 55 percent to 65 percent;⁴⁷ it does not include Debt / Capital among the factors with explicit weight in its evaluation of unregulated power companies.⁴⁸

The table below summarizes the weights that Moody's assigns to these metrics for DPL (which it rates as a regulated utility, using its Standard Grid) and unregulated power

Metric	Regulated Utilities ⁴⁹	Unregulated Power Companies ⁵⁰
Interest Coverage	18.75%	25%
Cash Flow / Debt	37.50%	50%
Retained Cash Flow / Debt	25.00%	25%
Debt / Capital	18.75%	0%

To assign a credit rating, I assign a numerical score for each metric based on the Moody's criteria in Exhibit RJM-13. For example, *Interest Coverage* of 3.0x for a regulated utility translates to a Baa rating and a score of 9. CF / Debt and RCF / Debt metrics of 10.9 percent and 10.1 percent for a regulated utility result in ratings (scores) of Ba (12) for CF / Debt and Baa (9) for RCF / Debt. A Debt / Capital ratio of 74.3 percent corresponds to a B rating and a score of 15. The composite rating score would be $0.1875 \times 9 + 0.375 \times 12 + 0.25 \times 9 + 0.1875 \times 15 = 11.25$, which translates to a rating of "Ba1." 52

Companies, at 36.

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companies.

 ⁴⁷ Moody's Investors Service (2013) Rating Methodology for Regulated Electric and Gas Utilities, at 38.
 48 Moody's Investors Service (2014) Rating Methodology for Unregulated Utilities and Unregulated Power

⁴⁹ Moody's Investors Service (2013) Rating Methodology for Regulated Electric and Gas Utilities, at 6.

Moody's Investors Service (2014) Rating Methodology for Unregulated Utilities and Unregulated Power Companies, at 8

⁵¹ Moody's notes that DPL has "significant financial leverage" but does not provide a grid of leverage ranges by credit rating for unregulated utility holding companies such as DPL without a DMR or other non-bypassable charge.

(footnote cont'd...)

1 Q. Which rating grid, regulated or unregulated, do you use to determine your indicated 2 ratings?

I focus primarily on the Standard Grid for regulated utilities because that is what 3 A. Moody's uses currently. Certainly the Standard Grid is appropriate for the "With DMR" 4 5 scenario because the non-bypassable DMR significantly increases the proportion of DPL and DP&L revenues that are fixed from a regulatory perspective and, therefore, relatively 6 certain to be realized. However, under the "Without DMR" scenario, DPL and DP&L 7 8 will still earn revenues from their regulated transmission and distribution business, but 9 would no longer earn revenues from a fixed non-bypassable charge. As a result, their 10 total revenues would be less like regulated revenues and more like unregulated revenues. Under that scenario, therefore, the unregulated Moody's grid becomes relevant. 12 Accordingly, I have calculated indicated ratings for DPL and DP&L using both the regulated and unregulated Moody's methodologies in the "Without DMR" scenarios.

14 Q. Do the credit ratings assigned by the rating agencies depend on considerations other 15 than the four factors that you have mentioned?

Yes. The credit rating agencies consider a broader array of factors, some of which require 16 A. 17 a subjective determination. I have focused on the above four quantitative factors in order 18 to avoid subjectivity. As a result, the assigned ratings should be interpreted as indicative 19 rather than predictions of actual ratings. However, I note that the example above uses the

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^{(...}cont'd)

For regulated utilities such as DP&L, Moody's does provide a grid of leverage ranges and a leverage ratio of 74 percent (DPL as of June 2015) falls in the B-rated category of that grid. Moody's Investors Service (2013) Rating Methodology for Regulated Electric and Gas Utilities, at 24. Moody's Investors Service, Credit Opinion: DPL Inc., October 13, 2015.

⁵² 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").

actual metrics for DPL as of October 13, 2015. Moody's applies a three-notch reduction to DPL's rating due to its structural subordination to DP&L,⁵³ which would result in a "B1" rating, only one notch different from the assigned rating of "Ba3" that accounts for other factors. To preserve consistency, I apply the same three-notch reduction to the grid-based ratings based on the projected financial metrics for DPL.

In Exhibit RJM-19, I perform a similar exercise for the parent companies of other utilities regulated by the PUCO. The indicated credit ratings for AEP Company ("Baa1") and FirstEnergy ("Baa3") are exactly equal to the assigned credit ratings after accounting for the notching due to structural subordination. For Duke Energy Corporation, the indicated "Baa2" rating is one notch below the assigned rating. These results indicate that the rating based on the grid is a reliable measure of Moody's assigned credit ratings.

Q. How will you apply your calculation of indicated credit ratings in this case?

A. An indicated credit rating, or a change in an indicated credit rating, provides a measure of financial condition or integrity, or a change in those characteristics, through a connection to default risk. The lower the rating, the higher is the default risk, and vice versa. In this case, DPL will have a heavy debt load, which increases the probability of default all else equal.

⁵³ Structural subordination refers to the fact that the creditors to a holding company owning regulated subsidiaries typically have a claim on the consolidated group's cash flows and assets that is junior to the creditors of the subsidiaries. The holding company depends on dividends from its subsidiaries to service its debt, but the regulators of the subsidiary may prevent such dividends. To account for this additional risk, Moody's will lower the grid-based rating of a parent by one to three "notches" (e.g., a Ba2 rating is one notch lower than a Ba1 rating). Moody's Investors Service (2013) Rating Methodology for Regulated Electric and Gas Utilities, at 25-26.

1 D. INPUT DATA FOR FINANCIAL PROJECTIONS 2 Q. What information did you use to develop your financial projections for DPL and DP&L? 3 4 A. The financial projections are based on DP&L's dispatching model for the period from 5 2017 to 2023. The pro forma financial statements sponsored by Company Witness Craig Jackson also are based on this information.⁵⁴ 6 7 Q. Have you done anything to assure yourself that the input data for the financial 8 projections are sound? 9 Yes. I have performed the following procedures: A. I have reviewed the testimony of Mr. Jackson, as well as information provided to me 10 by the Company and discussed the underlying assumptions with those responsible for 11 12 their preparation. I tested the projections by comparing them to historical performance of the Company 13 14 and its peers. I compared the projections for the regulated utility to those filed by DP&L in its 15 pending rate case before PUCO.⁵⁵ 16

⁵⁴ Direct Testimony of Craig L. Jackson, Public Utilities Commission of Ohio Case Nos. 16-0395-EL-SSO, 16-0396-EL-ATA, 16-0397-EL-AAM, at 19-21.

⁵⁵ Direct Testimony of Daniel A. Santacruz, Public Utilities Commission of Ohio Case Nos. 15-1830-EL-AIR, 15-1831-EL-AAM, and 15-1832-EL-ATA.

I have tested the reasonableness of the projections and the underlying assumptions based on a review of market data, including coal futures contracts and published energy price projections.

4 Q. What were the results of this analysis?

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5 The projected O&M costs, debt and other information received from Mr. Jackson appear A. 6 reasonable based on my comparisons. In addition, the projections of DP&L's financial 7 results are consistent with those filed in DP&L's distribution rate case. Thus, the 8 projections implicitly assume that the PUCO will approve DP&L's distribution rates in 9 that case.

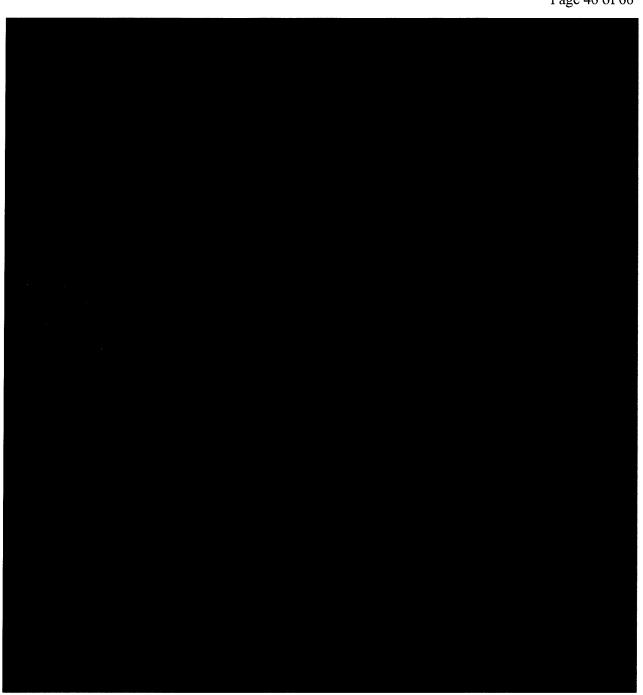
Q. Please describe the debt-related inputs to your financial projections.

As of the end of 2015, the combined entities had \$2.0 billion in debt of various types, as A. shown in RJM-18. As of the end of 2016, the consolidated balance is expected to be as discussed above. DPL had \$1.25 billion in debt approximately \$ outstanding, including but not limited to, \$200 million of bonds maturing in 2019 and 14 \$780 million of bonds maturing in 2021.

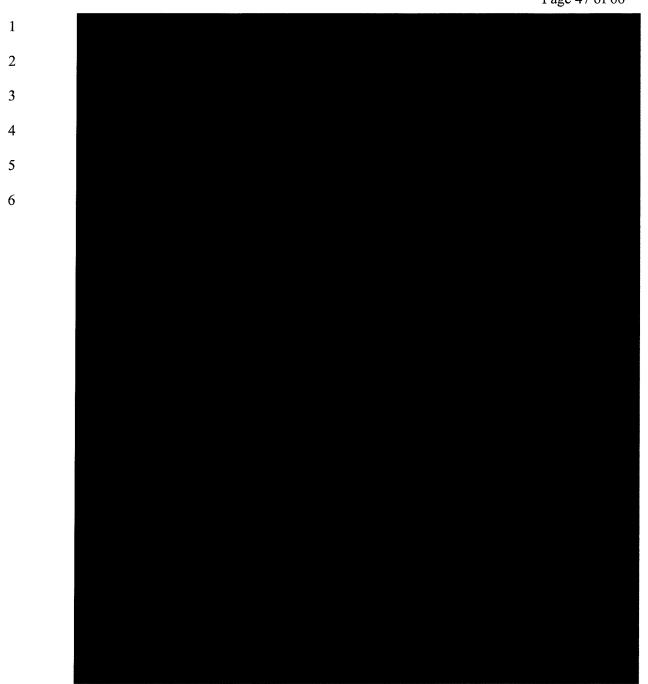
> DP&L has \$786 million in debt outstanding, including \$445 million in First Mortgage Bonds that it just refinanced. As noted by Witness Jackson, that debt has several unusual features for a regulated utility company that make it unattractive: a six-year maturity, a high and variable interest rate and restrictive covenants, including restrictions prohibiting additional debt issuances during the term of the loan. DP&L also has an aggregate of \$200 million in debt due in 2020.

1 2		E. PROJECTED FINANCIAL CONDITION OF DPL AND DP&L WITHOUT THE DMR
3	Q.	Please describe the projected financial condition of DPL and DP&L without the
4		DMR.
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 $^{^{56}}$ The projections underlying these ROE calculations assume that the rates requested by DP&L in its distribution rate case will be approved by the PUCO.



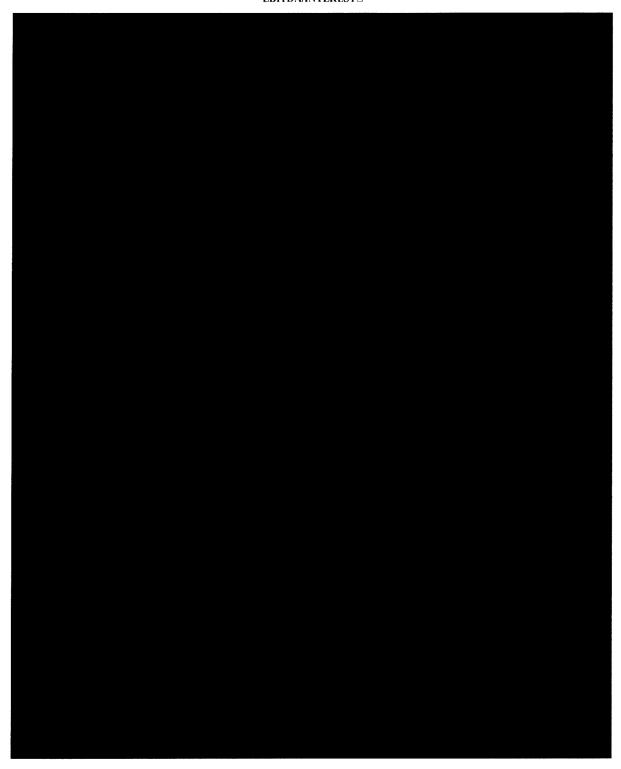
⁵⁷ Moody's Investors Service "Annual Default Study: Corporate Default and Recovery Rates, 1920-2014," (2015), at 26. The term "default," means a failure to service debt according to its terms.

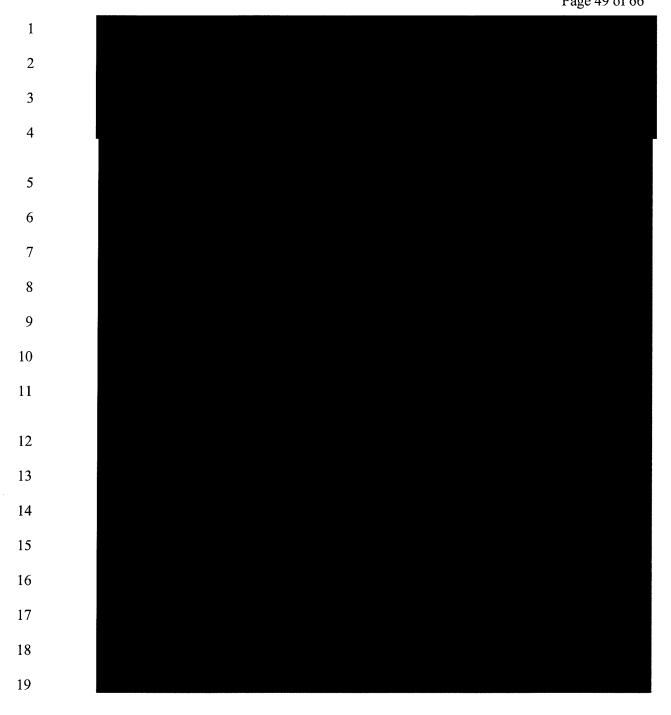


 $^{^{58}}$ Credit Agreement among DPL Inc., U.S Bank National Association, PNC Bank, National Association, and Bank of America, N.A., July 31, 2015, at 95.

FIGURE 7

DPL INC. FINANCIAL COVENANTS EBITDA/INTEREST

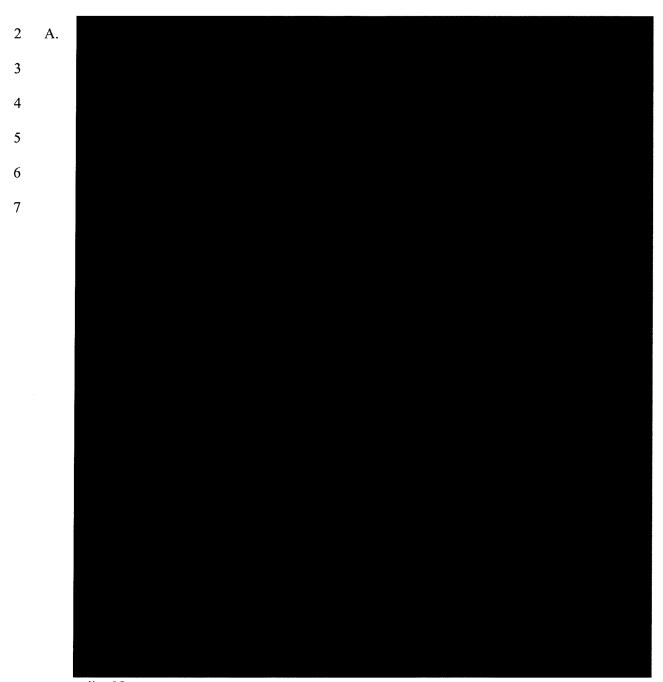




1	Q.	How would DP&L's customers be affected by DPL's and DP&L's financial
2		distress?
3	A.	DP&L's customers would face a number of negative consequences. In fact, the financial
4		condition of both DPL and DP&L is already compromised such that some of these
5		negative consequences may already exist. If no DMR is awarded, and the financial
6		condition of DPL and DP&L worsens, the impacts will be magnified and more invasive.
7		Based on my analysis of capital expenditures by financially distressed firms described
8		above, DP&L would reduce or delay such expenditures. All else equal, this reduction
9		would result in a less effective and less reliable infrastructure for delivering electric
10		service, which would harm customers and the state of Ohio more generally.
11		• DP&L would have no ability to finance investment in grid modernization, preventing
12		its customers from benefiting from new technology like customers in other states.
13		• Management and regulators' attention and effort would be diverted from their normal
14		duties aimed at fulfilling customers' needs to dealing with the financial distress. This
15		diversion also would cause harm to customers through reduced service quality.
16		• The increased cost of debt at DP&L would increase electric rates.
17		DP&L likely would invest less in service operations, which would reduce the quality

of customer service and customer satisfaction.

1 Q. Can you elaborate more on DPL's debt level absent the DMR?



Notes & Sources: From Exhibit RJM-9 and Exhibit RJM-10.

2 UNDER THE PROPOSED ESP (WITH THE DMR) 3 Q. How is the DMR calculated? 4 A. As explained by Company Witness Jackson, the DMR was calculated to put DPL on a 5 path to reach a debt level of about million by 2023, which would result in a normalized FFO/Debt level that is consistent with a rating from Moody's. 59 The 6 7 resulting DMR is \$145 million for the seven years from 2017 through 2023. 8 Have you projected the financial condition and integrity of DPL under an ESP with Q. 9 the proposed DMR? 10 Yes. The \$145 million DMR would provide DP&L approximately \$1 billion over the A. 11 seven-year projection period. These payments would allow DP&L to voluntarily pay 12 of its own debt and pay about in dividends that DPL down 13 would use to reduce its debt. DPL's consolidated debt/capital ratio would fall from percent in 2017 to percent in 2023. 14 15 With this significant deleveraging, DPL's credit metrics would improve dramatically. As 16 shown in RJM-2, its indicated credit rating using the regulated grid would rise from 17 in 2017 to then to in 2018-2020, in 2021, and in 2022. All of 18 these ratings assume the rating agencies treat the DMR as permanent, rather than 19 discounting it to reflect the fact that it would end after 2023. That assumption becomes 20 increasingly unrealistic (resulting in inflated ratings) in the final few years. The credit 21 rating agencies traditionally look at a long-term forecast and rate the Company based on

F. PROJECTED FINANCIAL CONDITION OF DPL AND DP&L

⁵⁹ Direct Testimony of Craig L. Jackson, Public Utilities Commission of Ohio Case Nos. 16-0395-EL-SSO, 16-0396-EL-ATA, 16-0397-EL-AAM, at 14.

1 its prospects as well as its current performance. As a result, I present the results for 2023 2 on a normalized basis by calculating CF/Debt without the DMR. The resulting indicated credit rating is 4 I also note that the DMR provides immediate long-term stability and certainty regarding 5 6 future cash flows, which will enable DPL to manage successfully short-term debt 7 maturities and to mitigate both the short- and long-term debt refinancing risks inherent in 8 the outlook absent the DMR. 14 15 What is the impact of the DMR on the financial condition and integrity of DP&L? Q. As noted above, DP&L would be able to voluntarily pay down million of its own 16 A. debt. In addition, as described by Company Witness Jackson, DP&L would be able to 17 18 refinance the \$445 million term loan with traditional fixed-rate, long-term debt financing, 19 which would benefit customers due to its longer term, lower associated refinancing risk, 20 and the elimination of restrictive covenants which currently limit the Company's ability 21 to invest in grid modernization.

1 Furthermore, DP&L's actual credit rating would increase from the current in 2017, while its indicated credit rating would increase rating of 3 from without the DMR in 2017 to with the DMR in 2017. While not as significant as the improvement for DPL, this change would represent enhanced 4 5 creditworthiness for DP&L, moving it more into the normal range for an integrated utility 6 (see Figure 2 above). Also, as shown in RJM-6, DP&L's projected traditional ROE excluding the DMR, but 7 8 including the effect of the large, one-time, non-cash 2016 asset impairment charge (which 9 reduces equity in the denominator), would range from percent for an average 10 percent. As I noted previously, this measure of ROE overstates returns, because it 11 fails to account for the possibility of reduced or delayed distribution revenue or declines 12 in the value of DP&L's assets. Excluding both the DMR and the asset impairment charge, 13 the range of DP&L's projected ROE would rise to a range of percent, for an 14 percent (versus percent without the DMR). This return on invested average of 15 capital measure of ROE better captures the asymmetric risk of future losses and, 16 therefore, is a useful indicator of DP&L's normalized ROE under the ESP with a DMR. 17 Based on these two indicators, it is reasonable to conclude that the expected ROE under 18 an ESP with a DMR is in the range of the 10.5 percent target ROE from DP&L's 19 distribution rate case. Furthermore, the additional cash flow would also allow the 20 Company to avoid cash flow deficiencies and to service its long-term debt.

Can you explain how DPL and DP&L will pay down debt under an ESP with a 1 Q. 2 DMR? 3 Yes. As is the case without the DMR, under the ESP with the DMR, DPL is projected to A. 4 have approximately in consolidated debt at YE 2016, including 5 approximately \$786 million billion issued by DP&L. As compared to the no-DMR 6 scenario, long-term consolidated debt of DPL is lower with the DMR by 7 2023. 8 Q. Please summarize your analysis of the financial condition and integrity of DPL and 9 DP&L in the presence of the DMR. 10 With the DMR in place from 2017 through 2023, the financial condition of DPL and A. 11 DP&L would improve considerably. By 2023, DPL's indicated credit ratings would 12 increase from without the DMR to at or near investment grade with the 13 DMR. DPL's improved cash flows would ensure that it could refinance its coming debt 14 maturities in 2019 and 2021 and make significant reductions to its debt burden. 15 DP&L's average ROE would rise from percent excluding the DMR, 16 including the effect of the 2016 asset impairment charge. However, this ROE is 17 overstated because it assumes a zero risk of reduced revenue or declines in asset value at 18 DP&L. Excluding the impairment charge, DP&L's projected ROE would average 19 percent. This measure better captures the downside risks associated with DP&L's 20 business and operations. Based on these two indicators, the expected ROE is in the range 21 of the 10.5 percent target ROE from DP&L's distribution rate case.

1		In addition, DP&L's actual credit rating would increase notches from
2		in 2017, a higher rating within the investment grade category and closer to the
3		normal level for an integrated utility, while its indicated credit rating in 2017 would
4		increase notch from to "For the remainder of the period, its indicated
5		rating would fluctuate from to to
6	Q.	Is DP&L using the DMR to support the non-regulated generation business?
7	A.	No. As noted by Company Witness Jackson and in my above response, the cash flow
8		from the DMR will be used to (a) pay interest obligations on existing debt at DPL and
9		DP&L, (b) make discretionary debt prepayments at DPL and DP&L, and (c) allow DP&L
10		to make capital expenditures to modernize its transmission and distribution infrastructure.
11	IV.	"MORE FAVORABLE IN THE AGGREGATE"
11		MORE I AVORABLE IN THE AGGREGATE
12	7.	A. AN OVERVIEW OF THE STATUTORY TEST
	Q.	
12		A. AN OVERVIEW OF THE STATUTORY TEST
12 13		A. AN OVERVIEW OF THE STATUTORY TEST Does DP&L's ESP have to meet certain requirements for approval by the
12 13 14	Q.	A. AN OVERVIEW OF THE STATUTORY TEST Does DP&L's ESP have to meet certain requirements for approval by the Commission?
12 13 14 15	Q.	A. AN OVERVIEW OF THE STATUTORY TEST Does DP&L's ESP have to meet certain requirements for approval by the Commission? Yes. For the Commission to approve a utility company's ESP, the ESP must meet certain
12 13 14 15 16	Q.	A. AN OVERVIEW OF THE STATUTORY TEST Does DP&L's ESP have to meet certain requirements for approval by the Commission? Yes. For the Commission to approve a utility company's ESP, the ESP must meet certain criteria that are specified in Section 4928.143 of the Ohio Revised Code. One of these
12 13 14 15 16 17 18 19 20 21	Q.	A. AN OVERVIEW OF THE STATUTORY TEST Does DP&L's ESP have to meet certain requirements for approval by the Commission? Yes. For the Commission to approve a utility company's ESP, the ESP must meet certain criteria that are specified in Section 4928.143 of the Ohio Revised Code. One of these criteria, specified in Section 4928.143(C)(1), is: that the electric security plan so approved, including its pricing and all other terms and conditions, including any deferrals and future recovery of deferrals, is more favorable in the aggregate as compared to the expected results that would

- Q. What assumptions do you make about the MRO to which you compare the proposed ESP?
- 3 A. I consider two possible MRO scenarios.

- 1. First, I assume that a non-bypassable financial integrity charge would be available under an MRO, and thus would be requested by the company. Such a charge would have much the same financial effect as the DMR under the proposed ESP. Thus, it is reasonable to assume that the financial integrity charge that the PUCO would approve under an MRO would be approximately the same size as the DMR it would approve under an ESP. I understand that this assumption is consistent with the PUCO's recent Order in the First Energy case. The "With DMR" financial results (e.g., RJM-2) are relevant for this scenario.
- 2. Second, I assume that the MRO would not include the DMR or a similar non-bypassable integrity charge. This assumption would be relevant were the Commission to find that such a charge is not allowable under an MRO. The "Without DMR" financial results (e.g., RJM-1) are relevant for this scenario.

Q. Do prior Commission decisions provide guidance on how to interpret this criterion?

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 impacts 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. 60 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.

A.

Reflecting this broad perspective, my assessment of the "more favorable in the aggregate" requirement considers multiple quantifiable and non-quantifiable characteristics of the Company's proposed ESP versus those of a hypothetical alternative MRO.

Q. What elements have you considered in your comparison of the two alternative plans?

First, I perform an Aggregate Price Test, which compares rates and charges to customers that choose DP&L's Standard Service Offer (SSO) under the ESP as compared to the rates and charges that they would pay if they chose the SSO under an MRO. This test reflects both bypassable and non-bypassable charges. As noted above, the rate structure of this hypothetical MRO is assumed to be either (a) similar to DP&L's ESP in every material respect, including a non-bypassable integrity charge that is comparable to the DMR or (b) similar to DP&L's ESP in every material respect, except that the ESP would include the proposed DMR and the MRO would not include a comparable integrity charge. Therefore, under scenario (a) the Aggregate Price Test is a wash, and under

⁶⁰ Public Utilities Commission of Ohio, Opinion and Order, Case No. 11-346-EL-SSO, August 8, 2012; Public Utilities Commission of Ohio, Opinion and Order, Case No. 12-1230-EL-SSO, July 18, 2012; Public Utilities Commission of Ohio, Opinion and Order, Case No. 12-426-EL-SSO, September 4, 2013.

- scenario (b) the Aggregate Price Test is effectively an analysis of the impact of the DMR on DPL's and DP&L's financial condition and integrity.
- Second, I consider other differences between the ESP and an MRO that are meaningful,

 but whose effects are difficult or impossible to quantify accurately. These include a range

 of effects, such as the impact on the reliability of the electricity service, assuring the

 Company of 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.

B. AGGREGATE PRICE TEST FOR DP&L'S ESP

Q. What is the Aggregate Price Test?

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A. The Aggregate Price Test is a comparison of the projected prices and charges to customers under DP&L's ESP as compared to 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 Standard Service Offer (SSO). Thus, customers who choose to take generation service from a Competitive Retail Electric Service (CRES) provider "bypass" these charges. Non-bypassable charges are charges paid by all customers that receive distribution service from DP&L.

19 Q. Please describe the comparison of bypassable charges.

20 A. Under both the ESP and MRO, bypassable rates beginning in 2017 will 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
 bypassable portion of SSO rates will be the same under both the MRO and ESP.
- 3 Q. Do you also consider non-bypassable customer charges?
- 4 A. Yes. The Aggregate Price Test explicitly considers non-bypassable charges such as a
- 5 DMR. Over the projection period, the DMR totals about \$1.0 billion. As noted above, I
- 6 consider two versions of the MRO.
- 7 If the MRO includes a non-bypassable integrity charge of \$145 million annually, it too
- 8 would have the same total cost of \$1.0 billion. Hence, the ESP would be neutral in the
- 9 Aggregate Price Test.
- 10 If the MRO did not include a non-bypassable integrity charge, the ESP would be \$1.0
- billion more expensive (in nominal terms) than the MRO under the Aggregate Price Test.
- Because the benefits to customers are in the future, I also consider a present value
- 13 calculation to account for the timing and uncertainty of those payments. Since the
- Aggregate Price Test is from the perspective of the customers, I consider discount rates
- ranging from 4 percent to 12 percent. This range is based on (a) a calculated after-tax
- weighted average cost of capital for an integrated utility with a 50/50 capital structure of
- approximately 7 percent, and (b) recognition that the risk of the future stream of cash
- flows from a non-bypassable DMR or financial integrity charge has a risk level
- reasonably approximated by the risk of an integrated utility with significant regulated
- 20 operations.
- Based on this range of discount rates, the present value of the seven-year stream of DMR
- payments ranges from \$870 million with the 4 percent discount rate to \$661 million with

1	the 12 percent discount rate. Hence, if the MRO does not include a \$145 million non-
2	bypassable integrity charge, the ESP with the proposed DMR is more expensive than the
3	MRO in the Aggregate Price Test and an assessment of whether it is more favorable in

5 Q. Did you quantify any of the other non-bypassable customer charges in the

the aggregate will hinge on non-quantifiable benefits.

Aggregate Price Test?

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A.

No. In addition to the non-quantifiable benefits described below related to the Distribution Investment and Clean Energy riders, DP&L has proposed several other non-bypassable charges such as the Transmission Cost Recovery Rider – Non-bypassable (TCRR-N), and the Reconciliation Rider (RR) that I do not explicitly address in my analysis. These charges largely reflect pass-through of various costs to customers and would be present in both the proposed ESP and hypothetical MRO. Consequently, they would have no impact on the Aggregate Price Test.

C. OTHER, NON-QUANTIFIABLE EFFECTS OF THE PROPOSED ESP AND MRO

Q. What is your principal conclusion regarding non-quantifiable benefits under an ESP versus an MRO?

18 A. Under the logical assumption, described above, that the PUCO would approve an integrity charge under an MRO as well as an ESP, the aggregate price test would result in a wash. That is, the ESP and MRO would have the same quantifiable impact on customers. In that case, the non-quantifiable benefits of an ESP, particularly investments in grid modernization, would make the ESP significantly more favorable in the aggregate than an MRO.

An MRO without a financial integrity charge also would result in the ESP with the DMR
being more favorable in the aggregate due to the non-quantifiable, but very real, adverse
effects that DP&L would suffer without an integrity charge. As discussed at length
above, in such a scenario, DP&L would have insufficient funds to provide safe and stable
service to its customers. The adverse effects on customers would be substantial, and in
my opinion, would exceed the costs of the DMR. An ESP with a DMR would have other
non-quantifiable benefits as well that are not available under an MRO. Thus, an ESP with
a DMR would be more favorable in the aggregate than an MRO without an integrity
charge.

10 Q. Does DP&L's ESP with the proposed DMR provide other non-quantifiable benefits 11 relative to an MRO?

- A. Yes. In addition to the quantifiable or partially quantifiable benefits discussed above,

 DP&L's ESP provides additional benefits that would not be experienced under an MRO.

 In particular:
 - 1. The DMR would facilitate borrowing to fund investments in grid modernization. While the hypothetical MRO might have an integrity charge that would enhance the financial condition and integrity of DPL and DP&L, I understand that there is no provision for grid modernization under the MRO statute that corresponds to Ohio Rev. Code § 4928.143(B)(2)(h) in the ESP statute. Mr. Jackson's testimony explains DP&L's plans to invest in grid modernization under the proposed ESP.

1	2.	The proposed ESP
2		Significantly Exces
3		under an MRO.
4	3.	As discussed in the
5		Clean Energy Ride
6		technologies consis
7		approve such a rid
8		would benefit custo
9		for in the MRO stat
10	4.	The ESP has a Dist
11		Hall, that will prov
12		distribution infrastr
13		such a rider unless
14		customers. Such a r
15	5.	The ESP allows the
16		or ESP in the futu
17		ability to have an

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- 2. The proposed ESP offers customers protection from excessive charges via the Significantly Excessive Earnings Test ("SEET"). The SEET does not apply under an MRO.
- 3. As discussed in the testimony of Company Witness Hale, the ESP contains a Clean Energy Rider that will facilitate investment in renewable and advanced technologies consistent with Ohio policies. Because the PUCO would not approve such a rider unless its benefits outweighed its costs, such a Rider would benefit customers. I understand that a Rider of this kind is not provided for in the MRO statute.
- 4. The ESP has a Distribution Investment Rider, explained by Company Witness Hall, that will provide for capital investment and O&M to maintain DP&L's distribution infrastructure. As I believe that the PUCO would not approve such a rider unless its benefits outweighed its costs, such a rider would benefit customers. Such a rider is not provided for in the MRO statute.
- 5. The ESP allows the Company to preserve the option of either filing an MRO or ESP in the future, whereas pursuing the MRO now would foreclose the ability to have an ESP in the future. Assuming that future ESPs could be devised that would be more beneficial to customers than an MRO, customers are better off with the proposed ESP.

Q. Could you please summarize your understanding of the benefits of grid modernization?

A. In general, all residential, commercial, industrial, and governmental customers in West

Central Ohio would benefit from the economic development, new jobs, and investment in

human and physical capital that would be caused by the grid modernization projects.

According to the US DOE, the modernized grid will have the following characteristics: greater resilience to hazards of all type; improved reliability for everyday operations, enhanced security from an increasing and evolving number of threats, additional affordability to maintain our economic prosperity, superior flexibility to respond to the variability and uncertainty of conditions at one or more timescales, including a range of energy futures, and increased sustainability through additional clean energy and energy-efficient resources.⁶¹

As a result, after the grid is modernized, customers will directly benefit from greater reliability and security as well as numerous smart grid features. In particular, the ability to manage power requirements to and from the utility will reduce the need for power, especially during high-use periods. Further, consumers and utilities would receive accurate, timely, and detailed information about energy use. Armed with this information, customers will be able to identify ways to reduce energy consumption with no impact on safety, comfort, and security. Next, because of the improved operational efficiency, utility operators will be able to easily identify, diagnose, correct, and even anticipate problems before they happen. Finally, consumers would get an opportunity to seamlessly

⁶¹ US DOE's Grid Modernization Multi-Year Program Plan.

- integrate all clean energy technologies: electric vehicles, rooftop solar systems, wind farms, and storage devices. 62
- 3 Q. Please summarize your conclusion on the ESP versus MRO test.
- A. In the scenario in which a financial integrity charge is available under both an ESP and an MRO, the ESP passes the more favorable in the aggregate test due to the five benefits listed in my prior answer. In particular, grid modernization has the potential to offer significant benefits to DP&L's customers. In a scenario in which an integrity charge is available in an ESP but not in an MRO, the ESP would pass the test since (a) DP&L would be unable to provide safe and stable service under an MRO; and (b) the five benefits listed in my prior answer would be available under an ESP but not an MRO.

V. <u>CONCLUSION</u>

- Q. Does approval of the proposed ESP with a DMR enable DPL and DP&L to maintain their financial integrity?
- 14 Yes. The financial condition of DP&L and DPL already is impaired and, absent the A. 15 DMR, I would expect a number of unfavorable outcomes including, but not limited to, (a) 16 a reduction in investments by DPL or DP&L that are necessary to maintain safe, reliable, 17 high quality service to their customers, (b) elimination of the ability for DPL and DP&L 18 to invest in grid modernization, (c) financial distress leading to diversion of management 19 and regulator attention from performing their normal duties on behalf of their 20 stakeholders, including customers, and (d) increased rates from increased financing costs. 21 However, the DMR would mitigate all of these unfavorable outcomes and instead enable

⁶² http://www.gridwise.org/smartgrid_whatis.asp.

- 1 DPL and DP&L to establish and maintain financial integrity and to invest in grid
- 2 modernization for the benefit of DP&L's customers.
- 3 Q. Do you conclude that DP&L's ESP is "more favorable in the aggregate" than an
- 4 **MRO**?
- 5 A. Yes. The facts and my analysis support that conclusion. Assuming that the MRO would
- 6 include a non-bypassable financial integrity charge, the Aggregate Price Test is a wash
- 7 and the non-quantifiable benefits of the ESP make it more favorable in the aggregate. If
- 8 the ESP does not include a non-bypassable integrity charge, then the ESP would be more
- 9 expensive based solely on the Aggregate Price Test but would provide a number of non-
- quantifiable benefits, most notable of which is the financial integrity of DPL and DP&L.
- 11 Q. Does this conclude your direct testimony?
- 12 A. Yes, it does.

APPENDIX A

R. JEFFREY MALINAK **Managing Principal**

Phone: (202) 530-3987 Fax: (202) 530-0436

jmalinak@analysisgroup.com

1899 Pennsylvania Avenue, NW Suite 200 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 a utility rate hearing. 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

Managing Principal, Analysis Group, Inc. (Washington, D.C.). 2000-

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 Vice President, Analysis Group, Inc. (Washington, D.C.).

1996-1997 Vice-President and Secretary/Treasurer, Malinak Medical Products, Inc.,

(Phoenix, Arizona), a wholesale medical supplies and service company.

1994-1996 *Principal, 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

AMERICAN ARBITRATION ASSOCIATION, WASHINGTON, D.C.

Major Commercial Bank v. Federal Deposit Insurance Corporation

Overall project management and analysis of the value of distressed commercial real estate and related loans. 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, VIRIGNIA

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.

AMERICAN ARBITRATION ASSOCIATION, NEW YORK

New Industries Co. (Sudan) Ltd. v. Pepsico, Inc.

Overall case management and analysis of damages in this breach of contract case involving the original Pepsi bottler in Sudan. Key issues included the appropriate methods for projecting lost profits and the valuation of the business of a soft drink bottler.

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.

Tax-Related Litigation

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.

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.

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.

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 Institution v. Group of Insurers/Reinsurers

Analysis of potential trading and other losses due to business interruption resulting from a single disaster-type event.

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.

Prospective Intellectual Property Consulting and Valuation

Internet Security/Privacy Technology

Valuation of a patent-pending technology for enhancing the security and privacy of web-based transactions and interactions.

Smartcard Technology for GSM Wireless Phones

Valuation of a portfolio of patents in relation to their potential use in GSM wireless phones.

Automotive Industry Patent Portfolio

Preparation of a preliminary report supporting the potential value of an international portfolio of product patents in the automotive industry. Identification of industry players, description of market structure, profitability analysis of potential licensees and estimation of potential royalty payments.

Biotechnology Patent

Preparation of materials supporting the potential value of a basic process patent in the biotechnology industry. Identification of industry players, description of market structure, and profitability analysis of potential licensees.

Medical Diagnostic Test Patent

Identification of industry players, description of market structure, evaluation of alternative technologies and profitability analysis of potential licensees.

Wireless Telecommunications Patent

Preparation of a report on the potential value of a basic process patent in the wireless telecommunications industry. Identification of industry players, description of market structure, evaluation of alternative technologies and profitability analysis of potential licensees.

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

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

PUBLIC UTILITIES COMMISION 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 Dayton Power & Light (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," <u>Litigation Services Handbook, The Role of the Financial Expert</u>, Chapter 7 (pp. 7.1-7.22), Fourth Edition (2007) (co-authored with G. Jetley and L. Stamm).

SPEECHES/COURSES

"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.

DPL INC. PRO FORMA FINANCIAL RATIOS WITHOUT DMR 2017 - 2023

2023			
2022			
2021			
2020			
2019			
2018			
2017			
Ratio DMR	Debt/EBITDA Debt/Capital EBITDA/Interest Interest Coverage Cash Flow/Debt Retained Cash Flow/Debt	Implied Moody's Rating - Regulated Interest Coverage Cash Flow/Debt Retained Cash Flow/Debt Debt/Capital Weighted Average Indicated Rating	Implied Moody's Rating - Unregulated Interest Coverage Cash Flow/Debt Retained Cash Flow/Debt Weighted Average Indicated Rating

Notes & Sources:

In thousands.

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

Cash Flow/Debt = CFO Pre-WC / DPL Inc. Consolidated Total Debt.

Retained Cash Flow/Debt = (CFO Pre-WC - Dividends) / DPL Inc. Consolidated Total Debt.

Debt/Capital = DPL Inc. Consolidated Total Debt / Total Capitalization.

Implied Regulated Ratings calculated using Moody's Rating Methodology, 'Regulated Electric and Gas Utilities,' December 23, 2013. See Exhibit RJM-13. Weighted Average based on weights of 18,75% (Interest Coverage), 37,50% (CF/Debt), 25,00% (RCF/Debt), and 18,75% (Debt/Capital).

Implied Unregulated Ratings calculated using Moody's Rating Methodology, Unregulated Utilities and Unregulated Power Companies, October 31, 2014. See Exhibit RJM-13. Weighted Average based on weights of 25% (Interest Coverage), 50% (CF/Debt), and 25% (RCF/Debt). Indicated Ratings reflect a three notch reduction from Weighted Average.

From Exhibit RJM-9 and Exhibit RJM-14.

DPL INC. PRO FORMA FINANCIAL RATIOS WITH DMR 2017 - 2023

	1101	2010	2012	2020	1707	1	2072	2023
	\$145,000	\$145,000	\$145,000	\$145,000	\$145,000	\$145,000	\$145,000	
DebyEBITDA								
Debt/Capital								
erest								
rage								
ebt								
Retained Cash Flow/Debt								
Implied Moody's Rating - Regulated								
verage								
Cash Flow/Debt								
Retained Cash Flow/Debt								
Debt/Capital								
Weighted Average								
Indicated Rating								
Implied Moody's Rating - Unregulated								
Interest Coverage								
//Debt								
Retained Cash Flow/Debt								
Weighted Average								
Indicated Rating								

Notes & Sources:

In thousands.

Interest Coverage = (CFO Pre-WC + Gross Interest Expense) / Gross Interest Expense. Cash Flow/Debt = CFO Pre-WC / DPL Inc. Consolidated Total Debt.

Retained Cash Flow/Debt = (CFO Pre-WC - Dividends) / DPL Inc. Consolidated Total Debt.

Debt/Capital = DPL Inc. Consolidated Total Debt / Total Capitalization.

Implied Regulated Ratings calculated using Moody's Rating Methodology, 'Regulated Electric and Gas Utilities,' December 23, 2013. See Exhibit RJM-13. Weighted Average based on weights of 18.75% (Interest Coverage), 37.50% (CF/Debt), 25.00% (RCF/Debt), and 18.75% (Debt/Capital). Implied Unregulated Ratings calculated using Moody's Rating Methodology, Unregulated Utilities and Unregulated Power Companies, October 31, 2014. See Exhibit RJM-13. Weighted Average based on weights of 25% (Interest Coverage), 50% (CF/Debt), and 25% (RCF/Debt). Indicated Ratings reflect a three notch reduction from Weighted Average.

From Exhibit RJM-10 and Exhibit RJM-15.

DP&L PRO FORMA FINANCIAL RATIOS WITHOUT DMR 2017 - 2023

2023	1			
2022	Į.			
2021	ş			
2020	1			
2019				
2018				
2017				
Ratio	DMR Debt	Debt/EBITDA Debt/Capital EBITDA/Interest Interest Coverage Cash Flow/Debt Retained Cash Flow/Debt	Implied Moody's Rating - Regulated Interest Coverage Cash Flow/Debt Retained Cash Flow/Debt Debt/Capital Weighted Average Indicated Rating	Implied Moody's Rating - Unregulated Interest Coverage Cash Flow/Debt Retained Cash Flow/Debt Weighted Average Indicated Rating

Notes & Sources:

In thousands.

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

Cash Flow/Debt = CFO Pre-WC / DP&L Total Debt.

Retained Cash Flow/Debt = (CFO Pre-WC - Dividends) / DP&L Total Debt.

Debt/Capital = DP&L Total Capitalization.

Implied Regulated Ratings calculated using Moody's Rating Methodology, 'Regulated Electric and Gas Utilities,' December 23, 2013. See Exhibit RJM-13.

Weighted Average based on weights of 18.75% (Interest Coverage), 37.50% (CF/Debt), 25.00% (RCF/Debt), and 18.75% (Debt/Capital).

Implied Unregulated Ratings calculated using Moody's Rating Methodology, Unregulated Utilities and Unregulated Power Companies,

October 31, 2014. See Exhibit RJM-13. Weighted Average based on weights of 25% (Interest Coverage), 50% (CF/Debt), and 25% (RCF/Debt). Indicated Ratings reflect a three notch reduction from Weighted Average. From Exhibit RJM-11 and Exhibit RJM-16

DP&L PRO FORMA FINANCIAL RATIOS WITH DMR 2017 - 2023

2019 2020 2021 \$145,000 \$145,000 \$145,000	\$145,000	\$145,000 \$145,000
	\$145,000	45,000 \$145,000 \$145,000
\$145,000		45,000 \$145,000
	\$145,000	45,000

Notes & Sources:

In thousands.

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

Cash Flow/Debt = CFO Pre-WC / DP&L Total Debt.

Retained Cash Flow/Debt = (CFO Pre-WC - Dividends) / DP&L Total Debt. Debt/Capital = DP&L Total Debt. / Total Capitalization.

Implied Ratings calculated using Moody's Rating Methodology, 'Regulated Electric and Gas Utilities,' December 23, 2013. See Exhibit RJM-13. Weighted Average based on weights of 18.75% (Interest Coverage), 37.50% (CF/Debt), 25.00% (RCF/Debt), and 18.75% (Debt/Capital). Indicated Ratings reflect a three notch reduction from Weighted Average.

From Exhibit RJM-12 and Exhibit RJM-17.

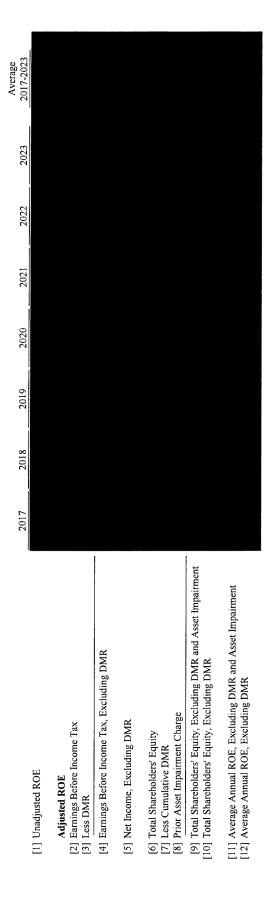
RETURN ON EQUITY (ROE) WITHOUT DMR DP&L

	2017	2018	2019	2020	2021	2022	2023	Average 2017-2023	
[1] Unadjusted ROE									
Adjusted ROE [2] Earnings Before Income Tax									
[3] Net Income									
[4] Total Shareholders' Equity [5] Prior Asset Impairment Charge									
[6] Total Shareholders' Equity, Excluding Asset Impairment									
[7] Average Annual ROE, Excluding Asset Impairment									

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Notes & Sources:
[1] = Net Income / Total Shareholders' Equity. See Exhibit RJM-16.
[2] From Exhibit RJM-16.
[3] = [2] * (1 - 35.84%).
[4] From Exhibit RJM-16.
[5] From Revised Exhibit CLJ-4.
[6] = [4] + [5].
[7] = [3] / [6].

RETURN ON EQUITY (ROE) WITH DMR DP&L

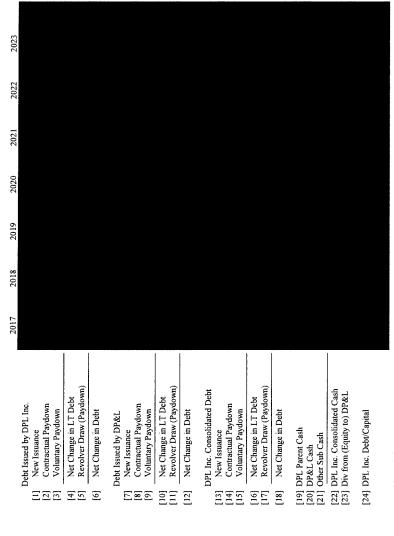


Notes & Sources:

- [1] = Net Income / Total Shareholders' Equity. See Exhibit RJM-17.
 - [2]-[3] From Exhibit RJM-17.

- [4] = [2] + [3].
 [5] = [4] * (1 35.84%).
 [6] From Exhibit RJM-17.
 [7] For 2017, equals DMR * (1 35.84%). For subsequent years, equals prior year Cumulative DMR + current year DMR * (1 35.84%).
 [8] From Revised Exhibit CLJ-4.
 [9] = [6] + [7] + [8].
 [10] = [6] + [7].
 [11] = [5] / [9].
 [12] = [5] / [10].

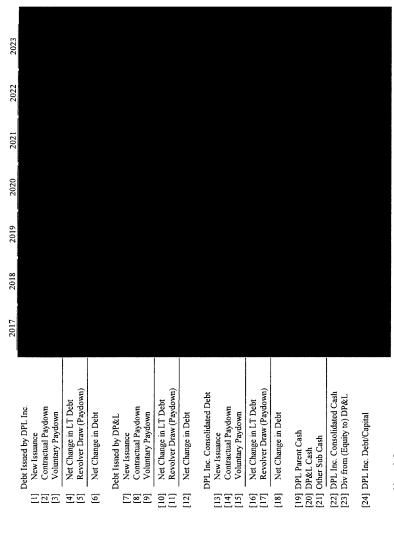
SUMMARY OF DEBT ACTIVITY WITHOUT DMR 2017 - 2023



Notes & Sources:

In trousands.
[3], [5] Assumption.
[7] From internal Company projections.
[8], [11] Assumption.
[9], [11] Assumption.
[13] = [1] + [7].
[14] = [2] + [8].
[15] = [3] + [9].
[17] = [5] + [11].
[19] From Exhibit R.M-14.
[20] From Exhibit R.M-14.
[20] From Exhibit R.M-16.
[21] = 'Cash Held at Subsidiary Level' from Exhibit R.M-14 - [20].

SUMMARY OF DEBT ACTIVITY WITH DMR 2017 - 2023



Notes & Sources:

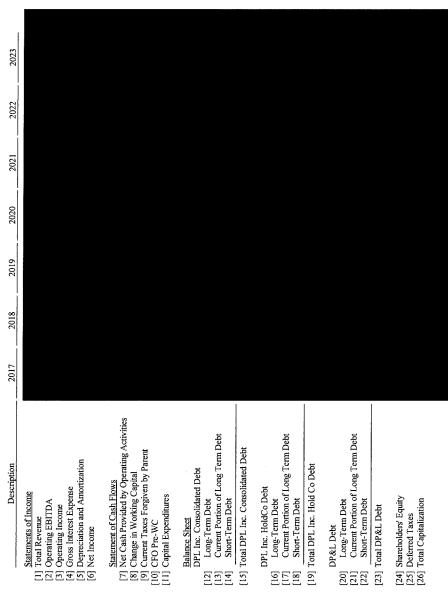
In thousands.

[3], [5] Assumption. [7]-[9] From internal Company projections. [1]-[2] From internal Company projections.

[11] Assumption.

[13] = [1] + [7]. [4] = [2] + [8]. [13] = [3] + [9]. [17] = [5] + [11]. [19] From Exhibit RJM-15. [20] From Exhibit RJM-17. [21] = "Cash Held at Subsidiary Level" from Exhibit RJM-15 - [20]. [23] Based on internal Company projections.

DATA FOR FINANCIAL RATIO CALCULATIONS WITHOUT DMR 2017 - 2023DPL INC.



Notes & Sources: In thousands.

[8] = change in Accounts Receivable + change in Inventories + change in Accounts Payable + change in Current Income Taxes Payable + change in Accrued Interest Payable.

[10] = [7] - [8] - [9]. [26] = [15] + [24] + [25]. From Exhibit RJM-14 and Exhibit RJM-16.

DATA FOR FINANCIAL RATIO CALCULATIONS WITH DMR 2017 – 2023

2023						
2023						
2022						
2021						
2020						
2019						
2018						
2017						
Description	Statements of Income [1] Total Revenue [2] Operating EBITDA [3] Operating Income [4] Gross Interest Expense [5] Depreciation and Amortization [6] Net Income	Statement of Cash Flows [7] Net Cash Provided by Operating Activities [8] Change in Working Capital [9] Current Taxes Forgiven by Parent [10] CPO Pre-WC [11] Capital Expenditures	Balance Sheet DPL Inc. Consolidated Debt [12] Long-Term Debt [13] Current Portion of Long Term Debt [14] Short-Term Debt	[15] Total DPL Inc. Consolidated Debt DPL Inc. HoldCo Debt [16] Long-Term Debt [17] Current Portion of Long Term Debt [18] Short-Term Debt	[19] Total DPL Inc. Hold Co Debt DP&L Debt [20] Long-Term Debt [21] Current Portion of Long Term Debt [22] Short-Term Debt	[23] Total DP&L Debt [24] Shareholders' Equity [25] Deferred Taxes [26] Total Capitalization

Notes & Sources:
In thousands.
Normalized 2023 excludes DMR.
Solution of the Accounts Receivable + change in Inventories + change in Accounts Payable + change in Current Income Taxes Payable + change in Net General
Taxes Payable + change in Accounts Receivable + change in Inventories + change in Accounts Receivable + change in Net General
Taxes Payable + change in Account Receivable + change in Net General
Taxes Payable + change in Net General
Ta

DATA FOR FINANCIAL RATIO CALCULATIONS WITHOUT DMR 2017 - 2023

2023				
2022				
2021				
2020				
2019				
2018				
2017				
Description	Statements of Income [1] Total Revenue [2] Operating EBITDA [3] Operating Income [4] Gross Interest Expense [5] Depreciation and Amortization [6] Net Income	Statement of Cash Flows [7] Net Cash Provided by Operating Activities [8] Change in Working Capital [9] CFO Pre-WC [10] Capital Expenditures	Balance Sheet DP&L Debt [11] Long-Term Debt [12] Current Portion of Long Term Debt [13] Short-Term Debt	[14] Total DP&L Debt [15] Shareholders' Equity [16] Deferred Taxes [17] Total Capitalization

Notes & Sources:

In thousands.

[8] = change in Accounts Receivable + change in Inventories + change in Accounts Payable + change in Current Income Taxes Payable + change in Net General Taxes Payable + change in Accrued Interest Payable.

[9] = [7] - [8].

[17] = [14] + [15] + [16].

From Exhibit RJM-16.

DP&L DATA FOR FINANCIAL RATIO CALCULATIONS WITH DMR 2017 - 2023

Normalized 2023				
2023				
2022				
2021				
2020				
2019				
2018				
2017				
Description	Statements of Income [1] Total Revenue [2] Operating EBITDA [3] Operating Income [4] Gross Interest Expense [5] Depreciation and Amortization [6] Net Income	Statement of Cash Flows [7] Net Cash Provided by Operating Activities [8] Change in Working Capital [9] CFO Pre-WC [10] Capital Expenditures	Balance Sheet DP&L Debt [11] Long-Term Debt [12] Current Portion of Long Term Debt [13] Short-Term Debt	[14] Total DP&L Debt [15] Shareholders' Equity [16] Deferred Taxes [17] Total Capitalization

Notes & Sources:
In thousands.

Normalized 2023 excludes DMR.

[8] = change in Accounts Receivable + change in Inventories + change in Accounts Payable + change in Current Income Taxes Payable + change in Net General

Taxes Payable + change in Accrued Interest Payable.

[9] = [7] - [8].

[17] = [14] + [15] + [16].

From Exhibit RJM-17.

MOODY'S RATINGS TABLES

Regulated Electric and Gas Utilities

	Interest Co	verage	CF/De	ebt	RCF/D	ebt	Debt/Ca	pital
Rating	Min	Max	Min	Max	Min	Min Max Min Max Min Max	Min	Max
Aaa	8.0x	>8.0x	40.0%	>40.0%	35.0%	>35.0%	<25.0%	25.0%
Aa	0.0x	8.0x	30.0%	40.0%	25.0%	35.0%	25.0%	35.0%
Ą	4.5x	6.0x	22.0%	30.0%	17.0%	25.0%	35.0%	45.0%
Baa	3.0x	4.5x	13.0%	22.0%	%0.6	17.0%	45.0%	55.0%
Ba	2.0x	3.0x	2.0%	13.0%	%0.0	%0.6	55.0%	65.0%
В	1.0x	2.0x	1.0%	2.0%	-5.0%	%0.0	65.0%	75.0%
Caa	<1.0x	1.0x	<1.0%	1.0%	<-5.0%	-5.0%	75.0%	>75.0%

Unregulated Utilities and Unregulated Power Companies

Interest Cc	verage	CF/De	bt	RCF/L	ebt
Min	Min Max Min Max Min Max	Min	Max	Min	Max
18.0x	≥18.0x	%0.06	>90.0%	%0.09	>60.0%
13.0x	18.0x	%0.09	%0.06	45.0%	%0.09
8.0x	13.0x	35.0%	%0.09	25.0%	45.0%
4.2x	8.0x	20.0%	35.0%	15.0%	25.0%
2.8x	4.2x	12.0%	20.0%	8.0%	15.0%
1.0x	2.8x	5.0%	12.0%	3.0%	8.0%
<1.0x	1.0x	<5.0%	2.0%	<3.0%	3.0%

Notes & Sources:

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

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

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

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

Debt/Capital = Total Debt / Total Capitalization.

From Moody's Rating Methodology, "Regulated Electric and Gas Utilities," December 23, 2013, and Moody's Rating Methodology, Unregulated Utilities and Unregulated Power Companies, October 31, 2014.

EXHIBIT RJM-14A

INCOME STATEMENT WITHOUT DMR 2017 - 2023DPL INC.



Fuel Related Costs Electricity Purchased For Resale Generation Sales
Energy and Ancillary Sales
Capacity Sales
Wholesale Trading Revenues
Other Generation Revenues Taxes Other than Income Taxes Depreciation and Amortization Total Generation Revenues Total Operating Expenses Total Cost of Revenues Operating EBITDA Operating Income Cost of Revenues Interest Expense Retail Revenues Other Revenues Total Revenues Gross Margin

Deferred Income Tax Expense Current Income Tax Expense Income Before Taxes

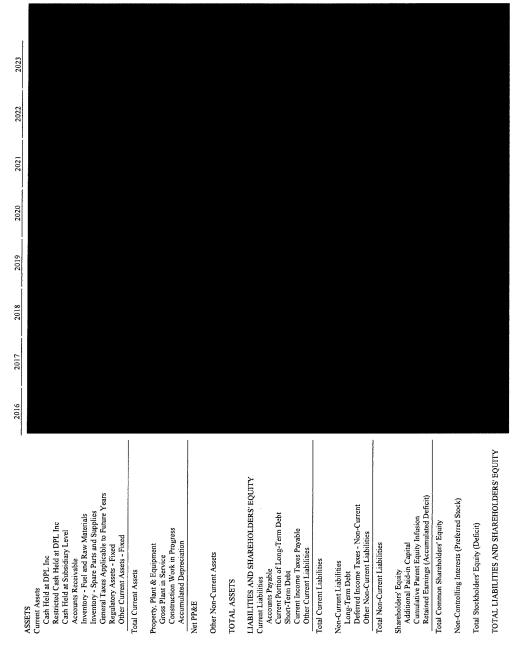
Other Expense / (Income) Interest (Income) - Other

Preferred Stock Dividend (Accrued)
Net Income Attributable to AES
Dividend to AES
Retained Earnings Total Income Taxes Net Income

Notes & Sources:
In thousands.
Surplus cash flows are used to prepay long-term debt. A cash flow deficit is covered by drawing on revolving line of credit. From internal Company projections.

EXHIBIT RJM-14B

BALANCE SHEET WITHOUT DMR 2017 - 2023 DPL INC.

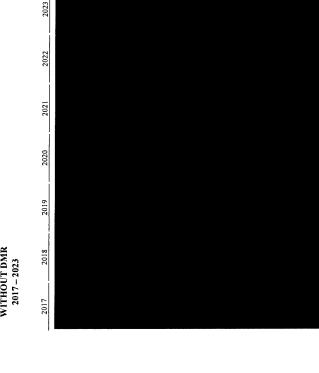


Notes & Sources: In thousands.

Surplus cash flows are used to prepay long-term debt. A cash flow deficit is covered by drawing on revolving line of credit. From internal Company projections.

EXHIBIT RJM-14C

WITHOUT DMR CASH FLOWS DPL INC.



(Decrease) Increase in Accounts Payable, Pension Contributions and Regulatory Assets Decrease (Increase) in Accounts Receivable Net Cash Provided by Operating Activities Net Cash Used in Investing Activities Depreciation and Amortization Provision for Deferred Taxes Other Operating Cash Flows Other Investing Activities Investing Activities Inventory

Operating Activities Net Income (Loss)

Adjustments

Financing Activities
Net borrowings Under Revolving Credit Facilities
Issuance of Debt
Repayments of Debt
Debt Issuance Fees
Preferred Stock Dividends Paid
Dividends Paid to AES Corp

Net Cash Provided by / (Used for) Financing Activities

(Decrease) Increase in Cash and Cash Equivalents

Notes & Sources:
In thousands.
Surplus cash flows are used to prepay long-term debt. A cash flow deficit is covered by drawing on revolving line of credit.
From internal Company projections.

EXHIBIT RJM-15A

INCOME STATEMENT WITH DMR 2017 - 2023DPL INC.

 2017
 2018
 2019
 2020
 2021
 2022
 2023

 \$145.000
 \$145.000
 \$145.000
 \$145.000
 \$145.000
 \$145.000

Cost of Revenues Fuel Related Costs Electricity Purchased For Resale Current Income Tax Expense Deferred Income Tax Expense Wholesale Trading Revenues O&M Taxes Other than Income Taxes Other Generation Revenues Depreciation and Amortization Energy and Ancillary Sales Capacity Sales Total Generation Revenues Total Operating Expenses Other Expense / (Income) Interest (Income) - Other Total Cost of Revenues Income Before Taxes Operating EBITDA Total Income Taxes Operating Income DMR Retail Revenues Generation Sales Other Revenues Interest Expense Total Revenues Gross Margin

Net Income

Preferred Stock Dividend (Accrued)

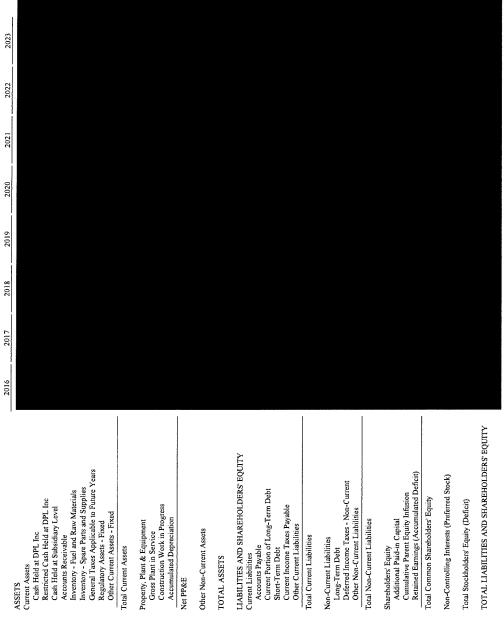
Net Income Attributable to AES Dividend to AES Retained Earnings

Notes & Sources:
In thousands.
Surplus cash flows are used to prepay long-term debt. A cash flow deficit is covered by drawing on revolving line of credit. From internal Company projections.

Page 1 of 3

EXHIBIT RJM-15B

BALANCE SHEET WITH DMR 2017 - 2023DPL INC.



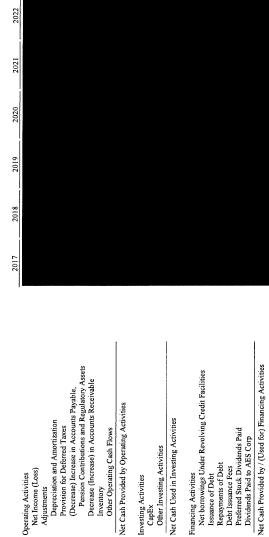
Notes & Sources:

Surplus cash flows are used to prepay long-term debt. A cash flow deficit is covered by drawing on revolving line of credit.

From internal Company projections.

EXHIBIT RJM-15C

CASH FLOWS WITH DMR 2017 - 2023DPL INC.



Net Cash Provided by Operating Activities Net Cash Used in Investing Activities Other Investing Activities Investing Activities

Repayments of Debt

Net Cash Provided by / (Used for) Financing Activities

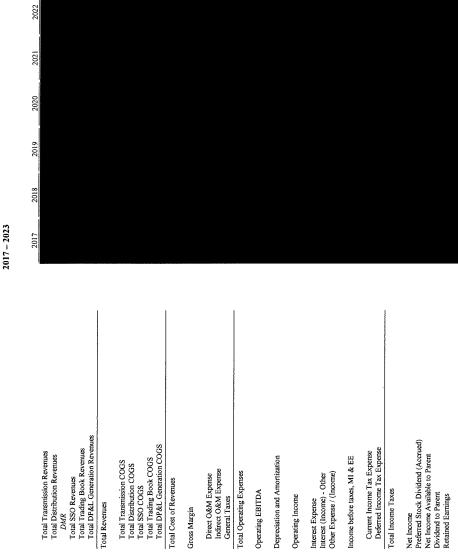
(Decrease) Increase in Cash and Cash Equivalents

Notes & Sources:

In thousands.
Surplus cash flows are used to prepay long-term debt. A cash flow deficit is covered by drawing on revolving line of credit. From internal Company projections.

EXHIBIT RJM-16A

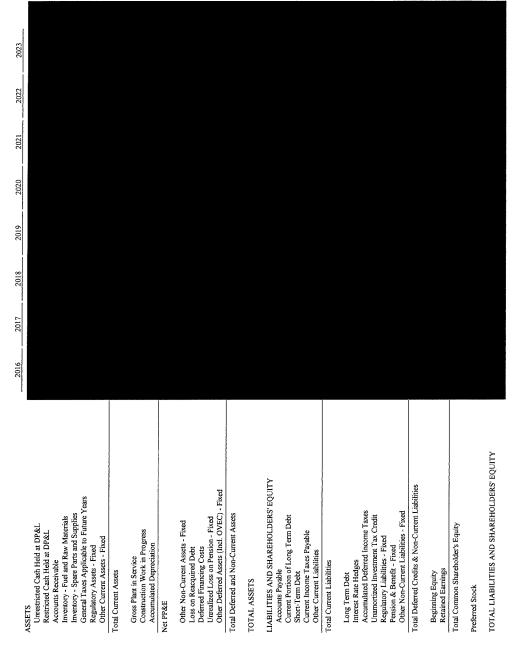
INCOME STATEMENT WITHOUT DMR DP&L



Net Income

Notes & Sources:
In thousands.
In thousands.
Propulse seaks flows are used to prepay long-term debt. A cash flow deficit is covered by drawing on revolving line of credit.
From internal Company projections.

BALANCE SHEET WITHOUT DMR 2017 - 2023DP&L



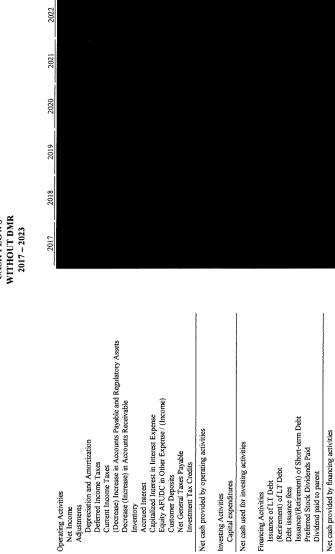
Notes & Sources:
In thousands.
Surplus cash flows are used to prepay long-term debt. A cash flow deficit is covered by drawing on revolving line of credit.
From internal Company projections.

Page 2 of 3

EXHIBIT RJM-16C

WITHOUT DMR CASH FLOWS DP&L

2023

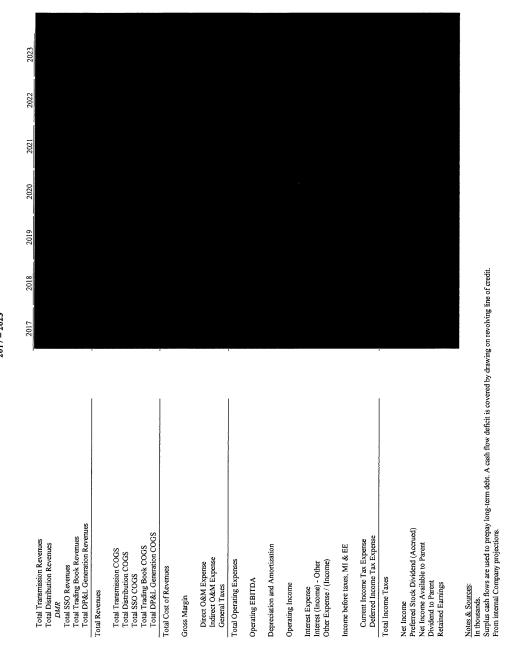


Notes & Sources:
In thousands.
Surplus cash flows are used to prepay long-term debt. A cash flow deficit is covered by drawing on revolving line of credit.
From internal Company projections.

(Decrease) Increase in Cash and Cash Equivalents

Cash and Temporary Cash Investments

DP&L INCOME STATEMENT WITH DMR 2017 - 2023



Indirect O&M Expense General Taxes

Direct O&M Expense

Total Cost of Revenues

Gross Margin

Total Revenues

Total Operating Expenses

Operating EBITDA

Other Expense / (Income)

Total Income Taxes

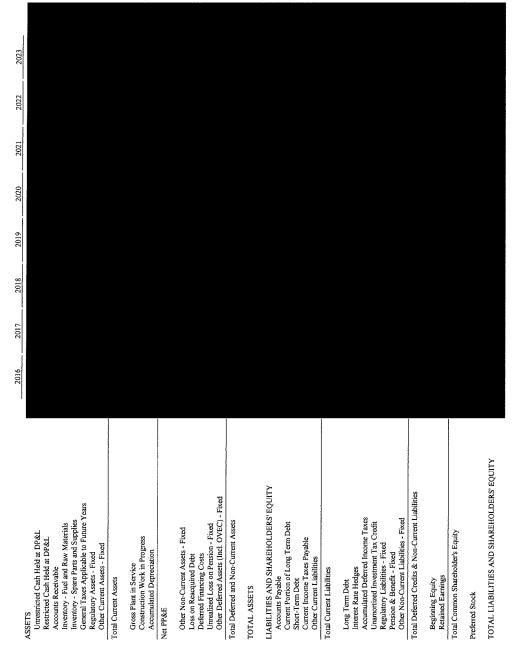
Net Income

Interest Expense Interest (Income) - Other

Operating Income

Page 1 of 3

BALANCE SHEET WITH DMR 2017 - 2023DP&L

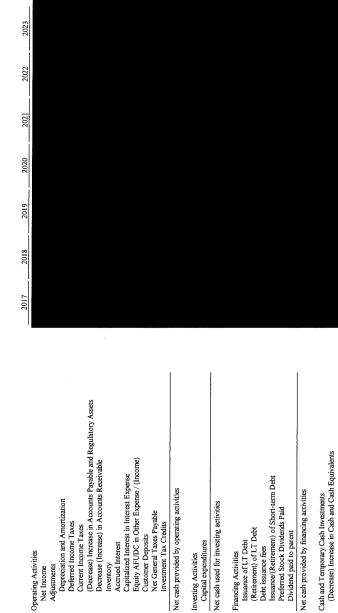


Notes & Sources: In thousands.

Surplus cash flows are used to prepay long-term debt. A cash flow deficit is covered by drawing on revolving line of credit. From internal Company projections.

EXHIBIT RJM-17C

CASH FLOWS WITH DMR 2017 – 2023 DP&L



Notes & Sources:

In thousands.

Surplus cash flows are used to prepay long-term debt. A cash flow deficit is covered by drawing on revolving line of credit. From internal Company projections.

OUTSTANDING DEBT AS OF SEPTEMBER 30, 2016 DPL INC. AND DP&L

	Amount Outstanding	Issued Amount	Interest Rate	Maturity Date
DPL Inc. HoldCo				
Term Loan	\$125,000	\$200,000	Variable	$7/31/2020^2$
2016 Bonds	\$57,000	\$450,000	6.500%	10/15/2016
2019 Bonds	\$200,000	\$200,000	6.750%	10/1/2019
2021 Bonds	\$780,000	\$800,000	7.250%	10/15/2021
DPL Capital Trust II	\$15,571	\$20,571	8.125%	9/1/2031
Revolver	•	\$205,000	Variable	5/10/2018
DPL Inc. HoldCo Total	\$1,177,571	\$1,675,571		
DP&L				
2016 Term Loan B FMB	\$445,000	\$445,000	4.000%	9/15/2027
2006 Ohio Air Quality	\$100,000	\$100,000	4.800%	9/1/2036
2015 Ohio Air Quality Series A	\$100,000	\$100,000	Variable	7/1/2020
2015 Ohio Air Quality Series B	\$100,000	\$100,000	Variable	7/1/2020
WPAFB Purchase Note (US Gov't)	\$18,103	\$18,691	4.200%	2/28/2061
Preferred Series A, B, C	\$22,851	\$22,851	4.710%	N/A
Revolver (PNC)	•	\$175,000	Variable	7/31/2020
DP&L Total	\$785,954	\$961,542		
DPL Inc. Consolidated Total	\$1,963,525	\$2,637,113		

Notes & Sources:

The \$200 million issued amount of the 2019 Bonds was initially part of the 2016 Bonds so is excluded from the total to avoid double counting.

² Under certain provisions, it could be July 1, 2019.

In thousands.

From internal Company data.

AS OF FEBRUARY 16, 2016 MOODY'S RATINGS TEST

		AEP Company, Inc.	any, Inc.	FirstEnergy Corp.	y Corp.	Duke Energy Corporation	orporation	DPL Inc.	JC.
	Weight	Ratios	Rating	Ratios	Rating	Ratios	Rating	Ratios Rating	Rating
		[A]		[B]		[2]			
Interest Coverage	18.75%	5.5		3.7		5.2	A	°C	
CF / Debt	37.50%	21.0%		13.9%		16.5%		10.9%	
RCF / Debt	25.00%	16.3%	Baa	11.6%		11.4%		10.6%	
Debt / Capitalization	18.75%	43.9%		54.7%	Baa	44.7%	A	74.3%	В
Structural Subordination Notching					-		7		ę.
ndicated Rating			Baa1		Baa3		Baa2		B1
Assigned Rating			Baal		Baa3		Baal		Ba3
ence			0		0		_		_

Notes & Sources:

[A] Moody's Credit Opinion, November 30, 2015.
[B] Moody's Credit Opinion, January 20, 2016.
[C] Moody's Credit Opinion, January 15, 2016.
[D] Moody's Credit Opinion, October 13, 2015.

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

Cash Flow/Debt = CFO Pre-WC / Total DPL Inc. Consolidated Debt.

Retained Cash Flow/Debt = (CFO Pre-WC - Dividends) / Total DPL Inc. Consolidated Debt.

Debt/Capital = Total DPL Inc. Consolidated Debt / Total Capitalization.

Indicated Rating calculated using weights from Moody's report "Regulated Electric and Gas Utilities," December 2013.

EXHIBIT RJM-20A

DPL INC. INCOME STATEMENT $2010 - 2016^{1}$

1	2010	2011	2012	2013	2014	2015	20161
Revenues	\$1,831	\$1,828	\$1,668	\$1,579	\$1,717	\$1,613	\$692
Cost of revenues	0.0	000	0,00	<i>1</i> / 06	6		6
ruei	3284	2656	2362	350/	\$305	2260	\$127
Purchased power Amortization of intangibles	\$387	\$441	\$342	. \$383	\$588		\$219
Total cost of revenues	\$771	\$845	662\$	\$750	\$892	\$822	\$346
Gross margin	\$1,060	\$983	698\$	8829	\$824	8790	\$346
Operating expenses							
Operation and maintenance	\$341	\$425	\$406	\$366	\$362	\$361	\$166
Depreciation and amortization	\$139	\$141	\$125	\$129	\$136	\$135	869
General taxes	\$76	\$83	880	877	\$88	287	\$43
Goodwill impairment	•	•	\$1,817	\$306	•	\$317	ı
Fixed-asset impairment	,	•	•	\$26	\$12	•	\$236
Other	•	•	80	\$3	(\$4)	80	80
Total operating expenses	\$556	\$649	\$2,429	206\$	\$593	\$900	\$513
Operating Income (Loss)	\$504	\$334	(\$1,559)	(\$77)	\$231	(\$110)	(\$167)
Other income /expense (net)							
Investment income	\$2	\$1	\$3	\$1	5	80	80
Interest expense	(\$71)	(\$20)	(\$123)	(\$124)	(\$127)	(\$118)	(\$52)
Charge for early redemption of debt	•	•	1	(\$3)	(\$31)	(\$2)	(\$3)
Other deductions	(\$2)	(\$2)	(\$2)	(\$3)	(\$2)	(\$1)	(\$1)
Total other expense, net	(\$71)	(\$87)	(\$123)	(\$128)	(\$158)	(\$122)	(\$55)
Earnings/loss from operations before income tax Income tax expense	\$433 \$143	\$247 \$103	(\$1,682) \$48	(\$206) \$20	\$73 \$15	(\$231) \$20	(\$222) (\$88)
Net Income (Loss)	\$290	\$144	(\$1,730)	(\$226)	\$57	(\$251)	(\$135)

Notes & Sources: In millions.

1 Through June 30, 2016.

2010 data from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2012 at 77.

2011 data from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2013 at 80.

2012 data from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2014 at 68.

2013, 2014, and 2015 data from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2015 at 13.

2016 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended June 30, 2016 at 10.

EXHIBIT RJM-20B

DPL INC. INCOME STATEMENT PERCENTAGE OF REVENUE 2010 – 2016¹

	2010	2011	2012	2013	2014	2015	2016
Revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of revenues							
Fuel	21.0%	21.4%	21.7%	23.2%	17.7%	16.1%	18.4%
Purchased power	21.2%	24.1%	20.5%	24.3%	34.2%	34.9%	31.6%
Amortization of intangibles	1	•	5.7%	•	ł	•	•
Total cost of revenues	42.1%	46.2%	47.9%	47.5%	52.0%	51.0%	\$0.0%
Gross margin	%6'25	53.8%	52.1%	52.5%	48.0%	49.0%	%0.0\$
Operating expenses							
Operation and maintenance	18.6%	23.3%	24.4%	23.2%	21.1%	22.4%	23.9%
Depreciation and amortization	7.6%	7.7%	7.5%	8.2%	7.9%	8.3%	10.0%
General taxes	4.1%	4.5%	4.8%	4.9%	5.1%	5.4%	6.2%
Goodwill impairment	1	1	108.9%	19.4%	1	19.7%	ı
Fixed-asset impairment	•	•	į	1.7%	0.7%	,	34.0%
Other	•	1	%0.0	0.2%	(0.2%)	0.0%	%0.0
Total operating expenses	30.3%	35.5%	145.6%	57.4%	34.6%	55.8%	74.1%
Operating Income (Loss)	27.5%	18.3%	(93,5%)	(4.9%)	13.4%	(%8%)	(24.1%)
Other income /expense (net)							
Investment income	0.1%	%0:0	0.1%	0.1%	0.1%	0.0%	%0.0
Interest expense	(3.9%)	(3.8%)	(7.4%)	(7.9%)	(7.4%)	(7.3%)	(2.6%)
Charge for early redemption of debt	1	•	ļ	(0.2%)	(1.8%)	(0.1%)	(0.4%)
Other deductions	(0.1%)	(0.1%)	(0.1%)	(0.2%)	(0.1%)	(0.1%)	(0.1%)
Total other expense, net	(3.9%)	(4.8%)	(7.4%)	(8.1%)	(9.2%)	(7.5%)	(8.0%)
Earnings/loss from operations before income tax	23.7%	13.5%	(100.8%)	(13.0%)	4.2%	(14.3%)	(32.1%)
Income tax expense	7.8%	9.6%	2.9%	1.3%	%6.0	1.2%	(12.7%)
Net Income (Loss)	15.9%	7.9%	(103.7%)	(14.3%)	3.3%	(15.6%)	(19.4%)

Notes & Sources:
Through June 30, 2016.
From Exhibit RJM-20A.

DPL INC. BALANCE SHEET 2010 – 2016¹

	2010	2011	2012	2013	2014	2015	2016¹
_	[A]	[B]	[C]	[D]	[E]	[F]	[G]
Current assets	\$124	\$174	\$192	\$53	\$17	\$ 32	\$73
Cash and cash equivalents Short-term investments ²	3 124	3 1/4	\$192	333	\$67	\$62	J / J
Restricted cash		\$14	\$11	\$14	\$17	\$93	\$33
Accounts receivable, net	\$216	\$219	\$208	\$203	\$137	\$121	\$108
Inventories	\$113	\$126	\$110	\$83	\$100	\$109	\$88
Taxes applicable to subsequent years	\$64	\$77	\$69	\$71	\$78	\$81	\$39
Regulatory assets, current	\$22	\$21	\$21	\$21	\$44	\$14	\$0
Other prepayments and current assets	\$41	\$38	\$43	\$35	\$39	\$45	\$51
Total current assets	\$648	\$667	\$655	\$479	\$499	\$557	\$392
Property, plant and equipment							
Property, plant and equipment	\$5,354	\$2,360	\$2,590	\$2,677	\$2,754	\$2,909	\$2,679
Less: Accumulated depreciation and amortization Construction work in process	(\$2,555) \$120	(\$8) \$152	(\$116) \$89	(\$207) \$64	(\$318) \$76	(\$432) \$85	(\$449) \$98
Total net property, plant and equipment	\$2,918	\$2,505	\$2,564	\$2,534	\$2,513	\$2,562	\$2,327
Other non-current assets							
Regulatory assets, non-current	\$167	\$193	\$186	\$160	\$168	\$180	\$186
Goodwill	-	\$2,576	\$759	\$453	\$317	-	-
Intangible assets, net of amortization	\$3	\$142	\$50	\$43	\$8	\$5	\$1
Other deferred assets Assets held for sale - non-current	\$ 78	\$ 52	\$ 34	\$53 -	\$40 \$35	\$21	\$25
Total other non-current assets	\$248	\$2,964	\$1,029	\$708	\$567	\$206	\$212
Total Assets	\$3,813	\$6,136	\$4,247	\$3,722	\$3,578	\$3,325	\$2,931
Current liabilities							
Current portion - long-term debt	\$298	\$0	\$585	\$10	\$20	\$573	\$514
Accounts payable	\$99	\$111	\$83	\$78	\$94	\$98	\$81
Accrued taxes	\$68	\$63 \$30	\$97 \$32	\$89 \$29	\$103 \$27	\$142 \$21	\$158 \$21
Accrued interest Customer security deposits	\$18 \$19	\$30 \$16	\$32 \$15	\$29 \$14	\$27 \$14	\$21 \$15	\$15
Regulatory liabilities, current	\$10	\$1	\$0	-	\$4	\$24	\$30
Insurance and claims costs	-	\$14	\$12	\$7	\$6	\$6	\$6
Other current liabilities ³	\$43	\$69	\$97	\$64	\$46	\$130	\$65
Liabilities held for sale - current	-	-	-	-	\$17	\$2	-
Total current liabilities	\$555	\$305	\$921	\$291	\$333	\$1,011	\$889
Non-current liabilities							
Long-term debt	\$1,027	\$2,629	\$2,025	\$2,284	\$2,140	\$1,421	\$1,409
Deferred taxes	\$623	\$541	\$535	\$564	\$587	\$569	\$467
Taxes payable	\$114	\$97	\$68	\$79	\$81	\$84	\$39
Regulatory liabilities, non-current	\$65	\$119	\$117	\$121	\$124	\$127	\$129
Pension, retiree and other benefits	\$32 \$10	\$48 \$4	\$62 \$3	\$52 \$3	\$96	\$87	\$80
Unamortized investment tax credit Other deferred credits	\$146	\$146	\$71	\$69	\$51	\$88	\$91
Liabilities held for sale - non-current	\$1 70	\$1.40 -	Ψ/I -	φ0 <i>)</i> -	\$0	ψ00 -	φ <i>γ</i> ,
Total non-current liabilities	\$2,017	\$3,582	\$2,882	\$3,173	\$3,078	\$2,376	\$2,216
Redeemable preferred stock of subsidiary	\$23	\$18	\$18	\$18	\$18	\$18	\$18
•	*··-	•		•		•	•
Common shareholder's equity				40.007	00.007	#A 222	#2.220
Other paid-in capital	(010)	- (#0)	- (#A)	\$2,237	\$2,237	\$2,238	\$2,238
Accumulated other comprehensive income Retained Earnings (Deficit)	(\$19) \$1.246	(\$0) (\$6)	(\$4) (\$1.806)	\$25 (\$2,022)	\$8 (\$2,097)	\$17 (\$2.336)	\$12 (\$2,441)
Total common shareholder's equity	\$1,246 \$1,219	**************************************	(\$1,806) \$427	\$2,022)	**************************************	(\$2,336) (\$81)	(\$2,441)
Total Liabilities and Shareholder's Equity	\$3,813	\$6,136	\$4,247	\$3,722	\$3,578	\$3,325	\$2,931

EXHIBIT RJM-21

DPL INC. BALANCE SHEET 2010 – 2016¹

Notes & Sources:

- In millions.
- ¹ Through June 30, 2016.
- ² Includes "Assets held for sales current."
- ³ Includes deposit received on sale of DPLER.
- [A] From DPL Inc. and The Dayton Power and Light Company Form 10-K/A for the fiscal year ended December 31, 2011 at 78-79.
- [B] From DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2012 at 81-82.
- [C] From DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2013 at 84-85.
- [D] From DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2014 at 72-73.
- [E] From DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2015 at 15. [F], [G] From DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended June 30, 2016 at 12.

Page 2 of 2

EXHIBIT RJM-22A

INCOME STATEMENT $2010 - 2016^{1}$ DP&L

,	2010	2011	2012	2013	2014	2015	20161
Revenues	\$1,739	\$1,678	\$1,532	\$1,552	\$1,668	\$1,552	\$663
Cost of revenues Fuel Purchased power	\$372	\$381 \$402	\$355	\$363	\$315	\$245	\$119
Total cost of revenues	\$755	\$782	\$664	\$744	2887	\$800	\$337
Gross margin	\$983	968\$	\$867	\$807	\$771	\$752	\$326
Operating expenses Operation and maintenance	\$330	\$365	\$386	\$364	\$355	\$351	\$163
Depreciation and amortization	\$131	\$135	\$141	\$140	\$145	\$138	\$71
General taxes	\$72	\$76	\$74	\$74	98\$	\$85	\$42
Gain on termination of contract	r	•	•	•	•	•	(\$28)
Fixed asset impairment	1	•	\$81	\$86	•	•	\$857
Other	•	-	\$0	\$3	(\$4)	\$0	\$0
Total operating expenses	\$533	\$576	\$683	\$667	\$582	\$574	\$1,105
Operating income	\$450	\$320	\$185	\$140	\$189	\$178	(\$778)
Other income /expense, net							
Investment income	\$2	\$17	\$2	\$2	\$1	\$0	\$0
Interest expense	(\$37)	(\$38)	(\$33)	(\$37)	(\$34)	(\$31)	(\$11)
Charge for early redemption of debt	•	•	•	•	•	(\$\$)	•
Other deductions	(\$2)	(\$2)	(\$2)	(\$3)	(\$1)	(\$1)	(\$0)
Total other expense, net	(\$37)	(\$23)	(\$39)	(\$38)	(\$34)	(\$36)	(\$11)
Earnings (loss) from operations before income tax	\$413	\$297	\$146	\$102	\$155	\$142	(\$28)
Income tax expense	\$135	\$104	\$55	\$19	\$40	\$35	(\$291)
Net income	\$278	\$193	\$91	\$84	\$115	\$106	(\$498)

Notes & Sources: In millions.

Through June 30, 2016.

2010 data from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2012, at 158.

2011 data from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2013, at 158.

2012 data from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2014, at 129.

2013, 2014 and 2015 from DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2015, at 72.

2016 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended June 30, 2016 at 39.

EXHIBIT RJM-22B

DP&L INCOME STATEMENT PERCENTAGE OF REVENUE 2010 – 2016¹

•	2010	2011	2012	2013	2014	2015	20161
Revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of revenues Fuel	21.4%	22.7%	23.2%	23.4%	18.9%	15.8%	17.9%
Purchased power	22.1%	23.9%	20.2%	24.6%	34.9%	35.8%	32.9%
Total cost of revenues	43.4%	46.6%	43.4%	48.0%	53.8%	51.6%	50.8%
Gross margin	99.99	53.4%	26.6%	52.0%	46.2%	48.4%	49.2%
Operating expenses Operation and maintenance	19 0%	21 7%	25.2%	23.5%	21 3%	22 6%	24 50%
Depreciation and amortization	7.5%	8.0%	9.2%	%0.6	8.7%	8.9%	10.7%
General taxes	4.2%	4.5%	4.9%	4.8%	5.1%	5.5%	6.3%
Gain on termination of contract	•	•	•	•	•	•	(4.2%)
Fixed asset impairment	•	•	5.3%	5.5%	•	•	129.3%
Other	,	•	0.0%	0.2%	(0.2%)	0.0%	0.0%
Total operating expenses	30.7%	34.3%	44.6%	43.0%	34.9%	37.0%	166.7%
Operating income	25.9%	19.1%	12.1%	%0.6	11.3%	11.5%	(117.4%)
Other income /expense, net Investment income	%10	1 0%	%0 0	0 1%	0 1%	%0 0	%U U
Interest expense	(2.1%)	(2.3%)	(2.6%)	(2.4%)	(2.0%)	(2.0%)	(1.6%)
Charge for early redemption of debt			. 1	, I	· •	(0.3%)	· •
Other deductions	(0.1%)	(0.1%)	(0.1%)	(0.2%)	(0.1%)	(0.0%)	(0.0%)
Total other expense, net	(2.1%)	(1.3%)	(2.5%)	(2.4%)	(2.0%)	(2.3%)	(1.6%)
Earnings (loss) from operations before income tax	23.7%	17.7%	%9.6	%9.9	9.3%	9.1%	(119.1%)
Income tax expense	7.8%	6.2%	3.6%	1.2%	2.4%	2.3%	(43.9%)
Net income	16.0%	11.5%	%0.9	5.4%	%6'9	%6.9	(75.1%)

Notes & Sources: Through June 30, 2016. From Exhibit RJM-22A.

EXHIBIT RJM-23

DP&L BALANCE SHEET 2010 – 2016¹

	2010	2011	2012	2013	2014	2015	20161
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
Current assets	£51	622	620	622	e c	66	\$45
Cash and cash equivalents Restricted cash	\$54	\$32 \$14	\$29 \$11	\$23 \$13	\$5 \$17	\$5 \$45	\$43 \$33
Accounts receivable, net	\$178	\$179	\$160	\$148	\$153	\$120	\$106
Inventories	\$111	\$123	\$109	\$82	\$99	\$108	\$86
Taxes applicable to subsequent years	\$63	\$72	\$67	\$69	\$75	\$79	\$39
Regulatory assets, current	\$22	\$18	\$18	\$21	\$44	\$14	\$0
Other prepayments and current assets	\$43	\$24	\$33	\$33	\$41	\$46	\$50
Total current assets	\$471	\$461	\$426	\$387	\$435	\$418	\$360
Property, plant and equipment							
Property, plant and equipment	\$5,094	\$5,278	\$5,249	\$5,105	\$5,121	\$5,245	\$3,052
Less: Accumulated depreciation and amortization	(\$2,453)	(\$2,569)	(\$2,516)	(\$2,448)	(\$2,496)	(\$2,584)	(\$1,263)
Construction work in process	\$120	\$151	\$88	\$61	\$75	\$78	\$84
Total net property, plant and equipment	\$2,760	\$2,860	\$2,821	\$2,718	\$2,700	\$2,739	\$1,873
Other non-current assets							
Regulatory assets, non-current	\$167	\$178	\$186	\$160	\$168	\$180	\$186
Intangible assets, net of amortization	\$3	\$7	\$9	\$8	\$8	\$5	\$1
Other deferred assets	\$75	\$33	\$23	\$40	\$29	\$18	\$23
Total other non-current assets	\$244	\$218	\$218	\$208	\$204	\$203	\$210
Total Assets	\$3,475	\$3,538	\$3,464	\$3,313	\$3,339	\$3,360	\$2,442
	Company to the Marcon Price	CONTRACTOR DE LA CONTRA		**************************************	***************************************	NATURAL CONTROL OF THE PARTY OF	***************************************
Current liabilities							
Current portion - long-term debt	\$0	\$0	\$570	\$0	\$0	\$443	\$445
Short-term debt	-	-	-	-	-	\$35	-
Accounts payable	\$96	\$106	\$79	\$74	\$105	\$94	\$76
Accrued taxes	\$67	\$73	\$92	\$81	\$83	\$86	\$86
Accrued interest	\$8	\$8	\$13	\$10	\$10	\$4	\$4
Customer security deposits	\$19	\$16	\$35	\$33	\$35	\$15	\$15
Regulatory liabilities, current	\$10		\$0	-	\$4	\$24	\$30
Other current liabilities	\$36	\$46	\$52	\$60	\$45 -	\$51	\$64
Advance on contract termination		<u>-</u> -				\$28 \$781	6710
Total current liabilities	\$235	\$249	\$842	\$258	\$281	\$/61	\$719
Non-current liabilities							
Long-term debt	\$884	\$903	\$333	\$877	\$877	\$314	\$314
Deferred taxes	\$596	\$638	\$652	\$632	\$650	\$631	\$318
Taxes payable	-	\$94	\$66	\$77	\$78	\$82	\$38
Regulatory liabilities, non-current	\$114	\$119	\$117	\$121	\$124	\$127	\$129
Pension, retiree and other benefits	\$65	\$48	\$62	\$52	\$96	\$87	\$80
Unamortized investment tax credit	\$32	\$30	\$27	\$25	\$22	\$20	\$19
Other deferred credits	\$147	\$78	\$43	\$45	\$44	\$82	\$85
Total non-current liabilities	\$1,838	\$1,909	\$1,300	\$1,829	\$1,891	\$1,343	\$983
Redeemable preferred stock	\$23	\$23	\$23	\$23	\$23	\$23	\$23
Common shareholder's equity							
Common starenoiders equity Common stock, par value of \$0.01 per share	\$0	\$0	\$0	\$0	\$0	\$0	\$0
250,000,000 shares authorized	3 0	φU	φU	ΦU	φυ	ΦU	φV
41,172,173 shares issued and outstanding							
Other paid-in capital	\$782	\$803	\$803	\$804	\$804	\$804	\$811
Accumulated other comprehensive loss	(\$20)	(\$35)	(\$39)	(\$27)	(\$42)	(\$29)	(\$34)
Retained earnings	\$617	\$589	\$534	\$427	\$382	\$437	(\$61)
Total common shareholder's equity	\$1,380	\$1,358	\$1,299	\$1,204	\$1,143	\$1,213	\$717
Total liabilities and shareholder's equity	\$3,475	\$3,538	\$3,464	\$3,313	\$3,339	\$3,360	\$2,442
	,	,	,	,	+-,	,500	

EXHIBIT RJM-23

DP&L BALANCE SHEET 2010 – 2016¹

Notes & Sources:

In millions.

- ¹ Through June 30, 2016.
- [A] From DPL Inc. and The Dayton Power and Light Company Form 10-K/A for the fiscal year ended December 31, 2011, at 148-49.
- [B] From DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2012, at 162-63.
- [C] From DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2013, at 162-63.
- [D] From DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2014, at 133-34.
- [E] From DPL Inc. and The Dayton Power and Light Company Form 10-K for the fiscal year ended December 31, 2015 at 74.
- [F], [G] From DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended June 30, 2016 at 41.

EXHIBIT RJM-24A

QUARTERLY INCOME STATEMENT Q1 2013 - Q2 2016 DPL INC.

\$599 \$510 \$591 \$610 <th< th=""><th></th><th>5</th><th>2013</th><th>53</th><th> 2</th><th> 5</th><th>2014</th><th>j</th><th> </th><th>-</th><th>2015</th><th>- 1</th><th></th><th>2016</th><th>1</th></th<>		5	2013	53	2	5	2014	j		-	2015	- 1		2016	1
589 586 5100 593 570 516 586 576 571 513 517 518 517 517 518 517 517 519 517 519 517 519 517 519 517 519 517 519 517 519 517 519 517 519 517 519 517 519 517 519 517 519 517 519 518 517 519 518 517 519 518 517 519 518 519 <td></td> <td>\$395</td> <td>\$375</td> <td>\$441</td> <td>\$426</td> <td>\$460</td> <td>\$390</td> <td>\$479</td> <td>\$433</td> <td>\$483</td> <td>\$366</td> <td>\$414</td> <td>\$350</td> <td>\$364</td> <td>\$328</td>		\$395	\$375	\$441	\$426	\$460	\$390	\$479	\$433	\$483	\$366	\$414	\$350	\$364	\$328
\$186 \$162 \$215 \$201 \$254 \$200 \$239 \$195 \$270 \$1175 \$217 \$180 <t< td=""><td>nues power ion of intangibles</td><td>\$89 \$95 \$2</td><td>\$86 \$74 \$2</td><td>\$100 \$113 \$2</td><td>\$93 \$106 \$2</td><td>\$90 \$174 \$0</td><td>\$61 \$138 \$0</td><td>\$85 \$154 \$0</td><td>\$69</td><td>\$76 \$193</td><td>\$54</td><td>\$71 \$145</td><td>\$58</td><td>\$67</td><td>\$60 \$97</td></t<>	nues power ion of intangibles	\$89 \$95 \$2	\$86 \$74 \$2	\$100 \$113 \$2	\$93 \$106 \$2	\$90 \$174 \$0	\$61 \$138 \$0	\$85 \$154 \$0	\$69	\$76 \$193	\$54	\$71 \$145	\$58	\$67	\$60 \$97
\$209 \$213 \$227 \$225 \$196 \$191 \$240 \$238 \$213 \$191 \$197 \$189 \$117 \$294 \$101 \$97 \$294 \$234 \$234 \$235 \$236 \$33	f revenues	\$186	\$162	\$215	\$201	\$264	\$200	\$239	\$195	\$270	\$175	\$217	\$161	\$189	\$157
599 \$101 \$97 \$102 \$98 \$94 \$84 \$88 \$101 \$88 \$89 \$32 \$33 \$33 \$34 \$33 <td>Gross margin</td> <td>\$209</td> <td>\$213</td> <td>\$227</td> <td>\$225</td> <td>\$196</td> <td>\$191</td> <td>\$240</td> <td>\$238</td> <td>\$213</td> <td>\$191</td> <td>\$197</td> <td>\$189</td> <td>\$175</td> <td>\$171</td>	Gross margin	\$209	\$213	\$227	\$225	\$196	\$191	\$240	\$238	\$213	\$191	\$197	\$189	\$175	\$171
\$32 \$33 \$34 \$35 \$36 \$316 \$37 <td>Operating expenses Operation and maintenance</td> <td>66\$</td> <td>\$101</td> <td>26\$</td> <td>66\$</td> <td>\$105</td> <td>96\$</td> <td>\$94</td> <td>\$94</td> <td>\$87</td> <td>\$85</td> <td>\$101</td> <td>888</td> <td>888</td> <td>\$77</td>	Operating expenses Operation and maintenance	66\$	\$101	26\$	66\$	\$105	96\$	\$94	\$94	\$87	\$85	\$101	888	888	\$77
S152 S136 \$136 <th< td=""><td>Depreciation and amortization General taxes</td><td>\$32 \$21</td><td>\$33 \$21</td><td>\$34 \$19</td><td>\$34 \$20</td><td>\$35 \$28</td><td>\$34 \$22</td><td>\$35 \$21</td><td>\$36 \$21</td><td>\$34 \$23</td><td>\$33 \$22</td><td>\$35 \$21</td><td>\$33 \$21</td><td>\$33</td><td>\$36</td></th<>	Depreciation and amortization General taxes	\$32 \$21	\$33 \$21	\$34 \$19	\$34 \$20	\$35 \$28	\$34 \$22	\$35 \$21	\$36 \$21	\$34 \$23	\$33 \$22	\$35 \$21	\$33 \$21	\$33	\$36
S152 S152 S12 CSO (S0) (S4) SO (S0) CSO SO	Goodwill impairment	1	•	٠	\$306	\$136	•	•	•	•	•	•	\$317		
Since Color Colo	et impairment	•	•	•	\$26	\$12	1 6	1 (04)	1 4	• 6	1 6	•	•	• ;	\$236
Since		1	•	'	2	20	(%)	(20)	(\$4)	2	(20)		20	0 0 0	•
S57 S59 S76 (\$263) (\$119) S40 S91 S91 S69 S52 S40 (\$271) S32 S32 S33 S34 S34 S34 S34 S34 S35 S	Total operating expenses	\$152	\$155	\$151	\$488	\$315	\$151	\$150	\$147	\$144	\$140	\$157	\$459	\$143	\$370
\$0 \$2 (\$1) \$0 \$	come	\$57	829	928	(\$263)	(\$119)	\$40	\$91	16\$	69\$	\$52	\$40	(\$271)	\$32	(818)
Salar	Other income /expense, net	Ğ	Ş	é	É	é		į	•	•	;	;	;		
(531)	it income /loss	33)	25	(<u>s</u>)	9 (2	0.50	1 (000)	0\$ G	20	(20)	0S	00 5	0,	(20)	80
1. 1. 1. 1. 1. 1. 1. 1.	spense	(100)	(ace)	(321)	(\$53)	(351)	(337)	(\$33)	(331)	(\$31)	(331)	(\$29)	(\$28)	(\$26)	(\$26)
(\$31) (\$32) (\$32) (\$31) (\$31) (\$31) (\$31) (\$28) (\$29) \$26 \$26 \$45 (\$296) (\$150) \$6 \$57 \$31 \$38 \$21 \$9 (\$299) \$3 \$6 \$4 \$11 \$2 \$99 (\$249) \$34 \$42 \$27 \$15 \$9 \$33 \$23 \$2398) \$249 \$34 \$34 \$27 \$15 \$9 \$6302) \$2	Charge for early refilement of debt Other expense	· (18)	. (\$4)		(32) \$2	(\$1)	. (\$2)	(S) (S)	(\$31) \$1	. (\$1)	- (08)	(S 3)	- (80)	(£3) (\$3)	- (80)
\$26 \$26 \$45 (\$296) (\$150) \$6 \$57 \$31 \$38 \$21 \$9 (\$299) \$3 \$6 \$4 \$11 \$2 \$99 (\$28) (\$41) (\$12) \$11 \$6 \$0 \$3 \$1 \$20 \$23 \$33 (\$249) \$34 \$98 \$42 \$27 \$15 \$9 (\$302) \$2	Total other expense, net	(\$31)	(\$32)	(\$32)	(\$34)	(\$31)	(\$34)	(\$33)	(\$60)	(\$31)	(\$31)	(\$31)	(\$28)	(\$25)	(\$26)
\$6 \$4 \$11 \$2 \$99 (\$28) (\$41) (\$12) \$11 \$6 \$0 \$3 \$1 \$20 \$23 \$33 (\$298) (\$249) \$34 \$98 \$42 \$27 \$15 \$9 (\$302) \$2	Earnings /loss before income taxes	\$26	\$26	\$45	(\$296)	(\$150)	98	\$57	\$31	\$38	\$21	68	(\$299)	\$3	(\$225)
\$20 \$23 \$33 (\$298) (\$249) \$34 \$98 \$42 \$27 \$15 \$9 (\$302) \$2	expense /benefit	9\$	\$4	\$11	\$2	66\$	(\$28)	(\$41)	(\$12)	\$11	98	80	\$3	\$1	(888)
	loss	\$20	\$23	\$33	(\$298)	(\$249)	\$34	86\$	\$42	\$27	\$15	6\$	(\$302)	\$2	(\$137)

Notes & Sources. In millions.

2013 Q1 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended June 30, 2014, at 13.

2013 Q2 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended June 30, 2014, at 13.

2013 Q3 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended March 30, 2015, at 13.

2014 Q3 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended March 30, 2015, at 9.

2015 Q3 data from DPL inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended September 30, 2015, at 10.

2016 Q1 and 2015 Q1 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended March 31, 2016 at 10.

2016 Q2 and 2015 Q2 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended March 31, 2016 at 10.

EXHIBIT RJM-24B

DPL INC. QUARTERLY INCOME STATEMENT PERCENTAGE OF REVENUE Q1 2013 – Q2 2016

,		2013	3			2014				2015	10		2016	
•	01	05	03	40	ō	Q2	63	49	01	Q2	63	40	10	05
Revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of revenues Fuel	22.5%	22.8%	22.6%	21.8%	19.6%	15.6%	17.8%	15.8%	15.8%	14 9%	17 2%	16.5%	18 4%	18 3%
Purchased power	24.2%	19.8%	25.6%	25.0%	37.8%	35.5%	32.1%	29.2%	40.0%	32.9%	35.1%	29.6%	33.5%	29.5%
Amortization of intangibles	0.5%	0.5%	0.4%	0.4%	0.1%	0.1%	0.1%	0.1%	•	•	٠	•	•	
Total cost of revenues	47.1%	43.1%	48.6%	47.1%	57.4%	51.1%	49.9%	45.1%	\$5.9%	47.7%	52.4%	46.1%	51.9%	47.9%
Gross margin	52.9%	%6'99	51.4%	52.9%	42.6%	48.9%	50.1%	54.9%	44.1%	52.3%	47.6%	53.9%	48.1%	52.1%
Operating expenses Operation and maintenance	25.1%	26.9%	22.1%	23.3%	22.7%	24.6%	19.6%	21.6%	18.0%	23.1%	24 5%	25.2%	24 3%	23.5%
Depreciation and amortization	8.1%	8.9%	7.7%	8.0%	7.7%	8.7%	7.2%	8.3%	7.0%	9.1%	8.4%	9.3%	9.5%	11.0%
General taxes	5.3%	5.5%	4.4%	4.7%	%0.9	5.5%	4.4%	4.9%	4.8%	%0.9	2.0%	6.1%	5.8%	%9:9
Goodwill impairment	1	•	,	71.9%	29.5%	•	•	1	•	•	•	%9.06	٠	ı
Fixed-asset impairment	r	•	1	6.1%	2.5%	•	•	t	1	•	1	•	ı	71.7%
Other	•	•	•	%9.0	0.1%	(0.1%)	(0.0%)	(0.6%)	0.1%	(0.1%)	•	0.1%	%0.0	•
Total operating expenses	38.5%	41.3%	34.1%	114.5%	68.5%	38.7%	31.2%	34.0%	29.9%	38.2%	37.9%	131.3%	39.3%	112.8%
Operating income	14.4%	15.6%	17.2%	(61.7%)	(25.9%)	10.1%	18.9%	21.0%	14.3%	14.1%	%2.6	(77.4%)	8.8%	(%9.09)
Other income /expense, net Investment income /loss	0.0%	0.4%	(0.1%)	0.1%	0.1%	•	0.0%	0.1%	(0.0%)	0.1%	%0.0	%0.0	(0.0%)	0.1%
Interest expense	(7.7%)	(7.9%)	(7.0%)	(7.7%)	(6.7%)	(8.2%)	(%6.9)	(7.1%)	(6.3%)	(8.4%)	(7.0%)	(8.0%)	(7.2%)	(7.9%)
Charge for early retirement of debt	ı	•	•	(0.7%)		1	(0.0%)	(7.1%)	•	•	(0.5%)	•	(0.7%)	•
Other expense	(0.2%)	(1.1%)	'	0.4%	(0.1%)	(0.5%)	(%0.0)	0.2%	(0.1%)	(0.1%)	(0.1%)	(0.0%)	(0.1%)	(0.1%)
Total other expense, net	(7.9%)	(8.6%)	(7.1%)	(%6.7)	(6.7%)	(8.7%)	(%6.9)	(13.9%)	(6.5%)	(8.4%)	(7.6%)	(8.0%)	(8.1%)	(7.9%)
Earnings /loss before income taxes	%9:9	7.0%	10.1%	(%5.69)	(32.6%)	1.5%	12.0%	7.0%	7.8%	9.9%	2.1%	(85.4%)	%8.0	(%9.89)
Income tax expense /benefit Net income /loss	1.5% 5.0%	0.9%	2.6%	0.4% (69.9%)	21.5% (54.1%)	(7.2%) 8.7%	(8.6%) 20.5%	(2.7%) 9.7%	2.3%	1.6%	0.1%	0.8% (86.2%)	0.2%	(26.9%) (41.7%)

Notes & Sources: From Exhibit RJM-24A.

EXHIBIT RJM-25A

QUARTERLY INCOME STATEMENT Q1 2013 - Q2 2016 DP&L

		2013				2014				2015			2016	
•	01	02	03	40	0	Q2	Q3	Q4	Q1	Q2	63	40	Ιδ	62
Revenues	\$377	\$352	\$413	\$410	\$432	\$366	\$455	\$416	\$461	\$352	\$389	\$350	\$349	\$314
Cost of revenues Fuel Purchased power	\$88	\$85	\$97	\$93	\$84	\$59	\$85	\$88	\$69	\$51	\$69	\$56	\$63	\$56
Total cost of revenues	\$182	\$157	\$207	\$198	\$252	\$196	\$237	\$213	\$259	\$171	\$212	\$159	\$184	\$152
Gross margin	\$194	\$195	\$206	\$212	\$180	\$170	\$218	\$203	\$202	\$181	\$178	\$191	\$165	\$161
Operating expenses:	ě	Č	Ç	6	i (;	;		:		
Operation and maintenance Depreciation and amortization	S34 S34	\$92 \$35	838	892 836	\$95	\$85	\$36	\$87	\$84 \$35	\$84 \$34	\$95	\$88	286	\$76
General taxes	\$20	\$19	\$18	\$19	\$26	\$21	\$20	\$21	\$23	\$21	\$20	\$21	\$21	\$21
Fixed Asset Impairment	ı	•	•	98\$	•	•	1	٠	•		•			\$857
Gain on termination of contract	1	•	•	•	•		•		•		•	•	(\$28)	
Other	•	'	•	\$3	\$0	\$1	•	(\$2)	\$	•		•	\$0	80
Total operating expenses	\$145	\$146	\$142	\$235	\$159	\$142	\$143	\$140	\$142	\$139	\$149	\$144	\$113	\$992
Operating income	\$50	\$49	\$64	(\$23)	\$21	\$29	\$76	\$64	860	\$42	\$29	\$47	\$52	(\$830)
Other income / (expense), net	ć	;	•	•	;	;	;	;	į	:				
Investment income	20	\$2	\$0	\$0	\$0	\$ 0	80	\$0	(%)	80	•	\$ 0	(0\$)	20
Interest expense Charge for early retirement of debt	(6S)	(\$10)	(\$10)	(\$8)	(\$8)	(\$\$)	(88)	(\$\$)	(88)	(83)	(\$7)	(8)	(\$2)	(\$2)
Other expense		(\$4)		\$1	(0\$)	(80)		(\$0)	(0\$)	(0\$)	(S) (\$0)	(80)	(0\$)	(0\$)
Total other expense, net	(\$10)	(\$12)	(\$10)	(\$5)	(\$\$)	(6\$)	(6\$)	(\$8)	(6\$)	(6\$)	(\$12)	(9\$)	(9\$)	(\$5)
Earnings before income taxes	\$40	\$37	\$54	(\$28)	\$13	\$20	\$66	\$55	\$51	\$33	\$16	\$41	\$46	(\$835)
Income tax expense	\$10	\$ 6	\$13	(\$11)	\$4	9\$	\$13	\$17	\$15	83	\$1	\$10	\$12	(\$304)
Net income	\$30	\$30	\$41	(\$18)	83	\$14	\$53	\$39	\$37	\$24	\$16	\$30	\$34	(\$532)
,														

Notes & Sources:
In millions.

2013 Q1 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended March 30, 2014, at 50.

2013 Q2 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended September 30, 2014, at 48.

2013 Q3 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended March 30, 2015, at 48.

2014 Q1 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended March 30, 2015, at 39.

2014 Q2 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended September 30, 2015, at 39.

2015 Q3 and 2014 Q3 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended September 30, 2015, at 42.

2016 Q1 and 2015 Q1 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended March 31, 2016 at 36.

2016 Q2 and 2015 Q2 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended June 30, 2016 at 39.

EXHIBIT RJM-25B

DP&L QUARTERLY INCOME STATEMENT PERCENTAGE OF REVENUE Q1 2013 – Q2 2016

		2013				2014				2015	5		2016	9
	01	Q2	(33	40	[O	05	03	Q4	01	Q2	03	Q4	٥ <u>.</u>	02
Revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of revenues	Š		;	1	;	,	;							
Fuel	23.4%	24.1%	23.4%	22.7%	19.5%	16.0%	18.6%	21.0%	15.0%	14.4%	17.7%	16.0%	18.0%	17.7%
Purchased power	25.0%	20.5%	26.7%	25.6%	38.9%	37.5%	33.5%	30.1%	41.1%	34.1%	36.6%	29.6%	34.7%	30.8%
Total cost of revenues	48.4%	44.6%	50.1%	48.3%	58.4%	53.5%	52.1%	51.1%	56.1%	48.5%	54.3%	45.5%	52.7%	48.5%
Gross margin	51.6%	55.4%	49.9%	51.7%	41.6%	46.5%	47.9%	48.9%	43.9%	51.5%	45.7%	54.5%	47.3%	51.5%
Operating expenses:														
Operation and maintenance	24.2%	26.0%	21.2%	22.4%	22.1%	23.1%	18.9%	21.0%	18.3%	23.8%	24.3%	25.1%	24.7%	24.4%
Depreciation and amortization	8.9%	10.0%	8.7%	8.7%	8.4%	9.7%	8.0%	%8.8 %	7.5%	9.7%	%6.8	%6:6	%8.6	11.7%
General taxes	5.3%	5.5%	4.4%	4.6%	6.1%	9.6%	4.4%	2.0%	4.9%	6.1%	5.2%	%0'9	2.9%	6.7%
Fixed Asset Impairment	•	•	•	21.0%	•	,	•	•	•	•	1	•	•	273.2%
Gain on termination of contract	•	•	•	1	t	•	•	•	į	•	ı	ı	(7.9%)	
Other	•	•	•	%9.0	0.0%	0.3%	•	(1.2%)	0.1%	1	•	•	%0.0	%0.0
Total operating expenses	38.4%	41.5%	34.3%	57.3%	36.7%	38.7%	31.3%	33.6%	30.8%	39.6%	38.3%	41.1%	32.4%	316.1%
Operating income	13.2%	13.9%	15.6%	(2.6%)	4.9%	7.8%	16.6%	15.3%	13.1%	12.0%	7.3%	13.4%	14.8%	(264.6%)
Other income / (expense), net	Š			•					:			;		
Investment income	%0.0	0.4%	0.0%	0.1%	0.1%	%0.0	%0.0	%!.0	(0.0%)	0.1%	1	%0.0	(0.0%)	0.1%
Interest expense	(2.5%)	(7.8%)	(2.5%)	(1.8%)	(1.8%)	(2.3%)	(2.1%)	(2.0%)	(1.9%)	(5.6%)	(1.8%)	(1.8%)	(1.5%)	(1.7%)
Charge for early retirement of debt	(0.2%)	• ()	•	' 00	1 3	1 3		• ;	1 3	1 3	(1.3%)	•	' :	
Other expense		(1.1%)	'	0.3%	(0.1%)	(0.1%)	'	(0.1%)	(0.0%)	(0.0%)	(0.1%)	(0.0%)	(0.1%)	(0.0%)
Total other expense, net	(2.6%)	(3.5%)	(2.5%)	(1.3%)	(1.8%)	(2.4%)	(2.0%)	(2.0%)	(2.0%)	(2.5%)	(3.1%)	(1.8%)	(1.6%)	(1.7%)
Earnings before income taxes Income tax expense	10.6%	10.4%	13.1%	(6.9%)	3.1%	5.4%	14.6%	13.3%	3.2%	9.5%	4.2% 0.2%	11.6%	13.2%	(266.3%)
•				,										
Net income	8.0%	8.6%	%6.6	(4.3%)	2.2%	3.8%	11.7%	9.3%	7.9%	%8.9	4.0%	8.7%	9.7%	(169.5%)

Notes & Sources: From Exhibit RJM-25A.

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing Direct Testimony of R. Jeffrey Malinak

October 31, 2016 (Public Version), has been served via electronic mail upon the following

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in

Case No(s). 16-0395-EL-SSO, 16-0396-EL-ATA, 16-0397-EL-AAM

Summary: Testimony Direct Testimony of R. Jeffrey Malinak (Public Version) electronically filed by Mr. Charles J. Faruki on behalf of The Dayton Power and Light Company