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

IN SUPPORT OF STIPULATION

AND RECOMMENDATION

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

BEFORE THE

PUBLIC UTILITIES COMMISSION OF OHIO

DIRECT TESTIMONY OF

R. JEFFREY MALINAK

ON BEHALF OF
THE DAYTON POWER AND LIGHT COMPANY

I. INTRODUCTION 2

II. AGGREGATE PRICE TEST FOR THE STIPULATION 10

III. OTHER QUANTIFIABLE EFFECTS OF THE STIPULATION RELATIVE TO AN MRO 13

IV. OTHER, NON-QUANTIFIABLE EFFECTS OF THE STIPULATION AND MRO 15

V. FINANCIAL CONDITION AND INTEGRITY OF DPL and DP&L WITH AND WITHOUT THE DMR, DIR-B AND RECONCILIATION RIDER 18

A. INTRODUCTION 18

B. DP&L'S SERVICE TERRITORY AND THE ECONOMIC ENVIRONMENT 33

C. METHODOLOGY 35

D. INPUT DATA FOR FINANCIAL PROJECTIONS 45

E. DPL'S AND DP&L'S PROJECTED FINANCIAL CONDITION AND INTEGRITY WITHOUT THE DMR, DIR-B AND RECONCILIATION RIDER 47

F. DPL'S and DP&L'S PROJECTED FINANCIAL CONDITION AND INTEGRITY WITH THE DMR, DIR-B AND RECONCILIATION RIDER 55

VI. CONCLUSIONS REGARDING THE MFA TEST 63

I. INTRODUCTION

Q. Please state your name and business address.

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

Q. What is the purpose of your testimony?

A. The purpose of this Testimony is to evaluate whether the Electric Security Plan ("ESP") Stipulation and Recommendation ("Stipulation") that The Dayton Power and Light Company ("DP&L"), its parent DPL Inc. ("DPL") (collectively, the "Companies") and various other parties signed passes the more favorable in the aggregate test ("MFA Test").

Q. What is your educational and work background?

A. 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 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.

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

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

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

A. 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 the issue 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.

Q. Considering all terms and conditions of the Stipulation, is the Stipulation more favorable in the aggregate as compared to the results expected under a market rate offer ("MRO")?

A. Yes. The Stipulation is more favorable in the aggregate as compared to the results that would be expected under a hypothetical MRO. More specifically, the Stipulation would be superior to an MRO due to (a) quantifiable benefits totaling at least $11.5 million over the life of the Stipulation that would not be available under an MRO, and (b) significant non-quantifiable benefits, derived, in particular, from more rapid and robust grid modernization, and commitments from AES regarding dividends and tax payments that are projected to provide approximately $[redacted] million in additional cash flow available for debt service and improving the Company's overall financial health. [redacted] Thus, under an MRO without the non-bypassable financial integrity and distribution investment recovery charges, the Companies would be in financial distress and have a significantly increased risk of default, with its attendant disruption of operations and diversion of management time. Under these conditions,

DP&L's ability to provide safe and reliable service to its customers would be in peril, as would its ability to invest in grid modernization.

Q. What are the key elements of the Stipulation that you consider in this Testimony?

A. The Stipulation provides for an ESP with the following characteristics:

- a six-year term,
- a five-year $90 million annual non-bypassable Distribution Modernization Rider ("DMR"), which will be used to maintain DP&L's financial integrity to allow it to continue to provide safe and reliable service to its customers, and "position DP&L to make capital expenditures to modernize and/or maintain DP&L's transmission and distribution infrastructure," [1]
- a five-year $35 million (plus depreciation) annual non-bypassable Distribution Investment Rider ("DIR-B"),[2] which "will be used to implement back-bone infrastructure projects designed to enable and support a longer term Smart Grid and Advanced Metering Infrastructure (AMI) roll out." [3]
- a six-year non-bypassable charge expected to be approximately [redacted] million annually to recover the net costs of DP&L's investment in the Ohio Valley Electric Cooperative facilities ("Reconciliation Rider"), and
- other terms and conditions, including other rate riders, a guarantee by the Companies that DPL Inc. will not pay dividends to AES Corporation ("AES")

[1] Stipulation, pp. 5-6.
[2] DP&L has agreed to forego including a return on this investment in its rates until 2022. Stipulation II.2.d.
[3] Stipulation, p. 7.

and that AES will continue to forego tax payments from DPL, and miscellaneous provisions providing benefits to customers and specific customer groups.

Q. Could you please describe the nature of the DIR-B in more detail?

A. Yes. The DIR-B is similar to the DMR in that it will add to DP&L's revenues and cash flow, thereby supporting the Companies' financial condition and integrity. This improved financial integrity will enable DP&L to provide safe and reliable service to its customers, as well as support the Company's efforts to invest in grid modernization. However, the DIR-B differs from the DMR in that DP&L is required by the Stipulation to invest the proceeds from this charge, or approximately $35 million per year, plus depreciation, directly in its transmission and distribution grid.

Q. Do the DIR-B, DMR and Reconciliation Rider enhance DP&L's financial integrity and provide a more robust grid for customers?

A. Yes. As described later in this Testimony, the DIR-B, DMR and Reconciliation Rider combine to produce an indicated credit rating for DP&L that is [redacted] for the entire Stipulation period. For DPL, the combined charges produce indicated debt ratings that are a significant improvement over its ratings without these charges, [redacted] Any reduction or elimination of the DIR-B, DMR and/or Reconciliation Rider would risk further credit rating declines and financial distress for the Companies. This, in turn, could

jeopardize DP&L's ability to provide safe and reliable service to its customers, while at the same time depriving the firm of funds to build a more robust grid to enable grid modernization.

Q. Does the Commission use any specific test to determine whether an ESP should be approved?

A. Yes, the Commission must find that the ESP "is more favorable in the aggregate as compared to the expected results that would otherwise apply under [an MRO],"[4] which I refer to as the "MFA Test."

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

A. Yes. In prior rulings in which the Commission has decided that ESPs met this "more favorable in the aggregate" test, the Commission has taken a broad view of the expected effects of the different rate regimes to consider when performing this test, including (a) quantifiable differences in the prices to be charged to customers for electric generation service under each rate regime (Aggregate Price Test), (b) other quantifiable differences in customer charges (or, potentially, metrics of customer service), and (c) non-quantifiable differences.[5] 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

[4] R.C. 4928.143(C)(1).
[5] 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.

effects on Ohio's economy through the impact of electric rates and services to business and industry within the state.

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

Q. What assumptions do you make about the MRO, to which you compare the Stipulation?

A. I consider two possible MRO scenarios.

1. First, I assume that non-bypassable financial integrity and/or distribution investment charges, similar to the DMR, DIR-B and Reconciliation Rider in the Stipulation, would be available under an MRO or recoverable through a distribution rate case, and thus would be requested and/or implemented by the company.[6] Such charges would have much the same effect on the Companies' financial results and integrity as the DMR, DIR-B and Reconciliation Rider under the Stipulation. Thus, it is reasonable to assume that the financial integrity and distribution investment charges that the PUCO would approve under an MRO or that DP&L could recover through a distribution rate case would be approximately the same size as the DMR, DIR-B and Reconciliation Rider in the Stipulation. I

[6] I understand that the DMR, a financial integrity charge, may be explicitly recoverable under an MRO. In addition, I understand further that charges to customers such as the DIR-B and the Reconciliation Rider in the Stipulation also would be recoverable from customers under an MRO, with the possible exception of the Renewable Investment commitment (discussed below). While the MRO statute itself may not authorize recovery of those costs specifically, if DP&L had filed for an MRO, it could make those investments and seek to recover those costs in a distribution rate case or in another proceeding.

understand that this assumption is consistent with the PUCO's recent Order in the First Energy case.

2. Second, I assume that the MRO would not include the DMR, DIR-B, Reconciliation Rider, or any similar non-bypassable integrity and/or distribution investment recovery charges. This assumption would be relevant were the Commission to find that such charges are not allowable under an MRO.

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

A. I first perform an Aggregate Price Test, which compares rates and charges to customers that choose DP&L's Standard Service Offer (SSO) under the Stipulation as compared to the rates and charges that they would pay if they chose the SSO under an MRO.

Second, I consider other differences between the Stipulation 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 electricity service, assuring that DP&L has 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 and the benefit of certain guarantees and concessions provided by the Companies under the Stipulation that I understand would not be present under an MRO.

II. AGGREGATE PRICE TEST FOR THE STIPULATION

Q. What is the Aggregate Price Test?

A. The Aggregate Price Test is a comparison of the projected prices and charges to customers under the Stipulation 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 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.

Q. Please describe the comparison of bypassable charges.

A. Under both the Stipulation and an 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 Stipulation.

Q. Do you also consider non-bypassable customer charges?

A. Yes. The Aggregate Price Test explicitly considers non-bypassable charges, such as the DMR, the DIR-B and the Reconciliation Rider included in the Stipulation. Over the period of the stipulated ESP, the DMR totals $450 million ($90 million x 5 years), the DIR-B totals $207.5 million, and the Reconciliation Rider totals approximately [redacted]. As noted above, I consider two versions of the MRO, one of which assumes that financial integrity or investment charges, such as the DMR, DIR-B or

Reconciliation Rider, would be available under an MRO, and one that assumes such charges would not be available.

Q. Please describe your Aggregate Price Test under the first version of the MRO.

A. Under this version of the MRO, I assume that all three non-bypassable financial integrity and distribution investment recovery charges in the Stipulation, i.e., the DMR, DIR-B and Reconciliation Rider, would be available under an MRO and would be sought by DP&L in order to maintain its financial integrity and invest in grid modernization.

If the hypothetical MRO also includes these three charges, then they would have the same cost under the MRO as under the Stipulation, resulting in a neutral outcome, or a "wash" in the Aggregate Price Test. Therefore, as discussed below, the results of the MFA Test under the first version of the MRO will depend on other quantifiable and non-quantifiable costs and benefits of the stipulated ESP relative to an MRO.

Q. Please describe your Aggregate Price Test under the second version of the MRO.

A. I assume that the non-bypassable financial integrity and/or distribution investment recovery charges would not be available under the second version of the hypothetical MRO. If the MRO did not include the non-bypassable DMR, DIR-B and Reconciliation Rider, the stipulated ESP would be $[redacted] more expensive (in nominal terms) than the MRO. Because these charges occur over time, and the benefits to customers are in the future, I also consider a present value calculation to account for the timing and uncertainty of those payments. The appropriate discount rate for the projected future payments depends on their risk. As an indicator for this risk, I consider discount rates ranging from 4 percent to 12 percent.

Based on this range of discount rates, the present value of the six-year stream of non-bypassable payments ranges from $[redacted] million with the 4 percent discount rate to $[redacted] million with the 12 percent discount rate (Exhibit RJM-1). Hence, if the MRO does not include an average of approximately [redacted] million per year for the first five years of the stipulated ESP for the DMR, DIR-B and Reconciliation Rider, the stipulated ESP is more expensive than the MRO under the Aggregate Price Test. Thus, an assessment of whether the Stipulation is more favorable in the aggregate will hinge on whether the value of its other, non-quantifiable benefits as compared to an MRO exceeds the present value of its increased cost ($[redacted] million), as well as any non-quantifiable costs of the stipulated ESP as compared to an MRO.

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

A. No. DP&L has proposed several other non-bypassable charges such as the DIR-A, Storm Cost Recovery Rider and the Regulatory Compliance Rider (RCR) that I do not explicitly address in my analysis. These charges largely reflect either pass-through of various costs to customers or the recovery of costs of distribution investment that would otherwise be present in both the proposed stipulated ESP and a hypothetical MRO (through the MRO itself, a distribution rate case, or other proceeding). Consequently, they have no impact on the Aggregate Price Test.

III. OTHER QUANTIFIABLE EFFECTS OF THE STIPULATION RELATIVE TO AN MRO

Q. Have you performed any analyses of quantifiable benefits of the Stipulation versus an MRO?

A. Yes. The Stipulation includes a number of other quantifiable benefits that would not be available under an MRO but that are available to individual signatory parties and other customers under the Stipulation.[7]

1. Under the Stipulation, DP&L agreed to make economic development payments, including an Economic Development grant fund of $1 million annually, to be used by customers within DP&L's service territory for energy programs and infrastructure, and $2 million over the term of a Stipulation for economic development, technical assistance, and implementation, studies, workforce development and other development purposes.

2. DP&L will provide $50,000 annually for energy education and reduction programs in the City of Dayton. During the first year, DP&L shareholders will fund the $50,000 annual spending. In subsequent years of the term of the Stipulation, this spending would be recovered through a rate rider. However, if the rider is not approved by the PUCO, then shareholders are committed to making the subsequent payments.

3. DP&L will contribute $100,000 annually (no more than 5 payments total) to pay up to 50 percent of a property owner's escrow reserve requirement and $50,000

[7] Stipulation, pp. 12-13, 29-37.

annually (no more than 5 payments total) to a revolving loan fund to support energy upgrades for small and micro businesses. During the first year, shareholders will fund this $150,000 in annual spending. In subsequent years of the term of the stipulated ESP, this spending would be recovered through a rate rider. However, if the rider is not approved by the PUCO, then shareholders are committed to making the subsequent payments.

4. DP&L will provide and install necessary equipment on the DP&L side of the meter to support system safety and reliable service at the Dayton International Airport. DP&L will pay the cost of making those improvements, up to $50,000, after which the City will pay the remainder.

5. DP&L will contribute $200,000 annually for up to five years to assist the City of Dayton in providing economic development programs and providing essential city services to residents.

6. DP&L will contribute $565,000 of shareholder dollars annually to benefit electric consumers at or below 200 percent of the federal poverty line or customers at risk of losing electric service.

7. DP&L will provide the Ohio Hospital Association ("OHA") $200,000 annually to promote energy/demand savings among OHA members. During the first year, the $200,000 in funding for OHA will be funded by DP&L shareholders. In subsequent years of the term of the stipulated ESP, this spending would be recovered through a rate rider. However, if the rider is not approved by the PUCO, then shareholders are committed to making the subsequent payments.

8. The Company will provide People Working Cooperatively, Inc. ("PWC") $200,000 annually to fund its programs to assist DP&L's low-income, elderly, and disabled customers. During the first year, the $200,000 in funding for PWC will be funded by shareholders. In subsequent years of the term of the stipulated ESP, this spending would be recovered through a rate rider. However, if the rider is not approved by the PUCO, then shareholders are committed to making the subsequent payments.

As shown in Exhibit RJM-20, these agreed-upon payments from "shareholders" would total at least $11.5 million over five years, representing net quantifiable benefits of the stipulated ESP relative to an MRO. This total represents the low end of the quantifiable benefits because it assumes that funding after the first year will be provided through rate riders for several of the programs. If any of these riders are not approved, these quantifiable benefits from the stipulated ESP relative to an MRO could be significantly higher.

IV. OTHER, NON-QUANTIFIABLE EFFECTS OF THE STIPULATION AND MRO

Q. What are your principal conclusions regarding non-quantifiable benefits under the stipulation versus an MRO?

A. Under the logical assumption, described above, that the PUCO would approve the three non-bypassable financial integrity and distribution investment recovery charges under an MRO (or in a distribution rate case) as well as under the stipulated ESP, the Aggregate Price Test would result in a wash. That is, the Stipulation and MRO would have the same quantifiable rate impact on customers. In that case, the non-quantifiable benefits of the

Stipulation, particularly the commitment to rapid grid modernization, as well as the dividend and foregone tax payment guarantees from AES, none of which would be available under an MRO, would make the Stipulation significantly more favorable in the aggregate than an MRO.

The Stipulation also would be more favorable in the aggregate than an MRO without the non-bypassable financial integrity and distribution investment recovery charges due to the non-quantifiable, but significant and real, adverse effects that DP&L and its customers would suffer without such charges. In such a scenario, DP&L would have insufficient funds to provide safe and stable service to its customers, much less invest in grid modernization. The adverse effects on customers in this case would be substantial and, in my opinion, clearly would exceed the quantifiable costs of the three non-bypassable charges. In addition, the Stipulation with the DMR, DIR-B and Reconciliation Rider would have other non-quantifiable benefits that are not available under an MRO. Such non-quantifiable benefits include the AES agreements not to collect dividends or tax payments from DPL during the terms of the DMR and DIR-B, as well as a number of other commitments by the Companies in the Stipulation related to renewable energy, rapid and significant investment in grid modernization, the location of DP&L's operating headquarters in Dayton, and other items. Thus, the Stipulation would be more favorable in the aggregate than an MRO under my second MRS scenario as well.

Q. Have you examined DPL and DP&L's financial condition and integrity with and without charges such as the DMR, DIR-B and Reconciliation Rider in the Stipulation?

A. Yes. The results of this analysis are contained in Exhibits RJM-2 to RJM-5. These Exhibits are based on an analysis of financial projections for DPL and DP&L with and without the DMR, DIR-B and Reconciliation Rider included in revenues and cash flow.

Q. Why have you performed this analysis as part of your comparison of the Stipulation to a hypothetical MRO?

A. Because one of the critical benefits the Stipulation is that it includes non-bypassable financial integrity and distribution investment recovery charges, i.e., the DMR, DIR-B and Reconciliation Rider, that are designed to ensure that DP&L can maintain its financial integrity and continue to provide safe and reliable service to its customers, as well as to invest in grid modernization. Given the Companies' current financial condition, a rigorous analysis of the financial condition and integrity of DPL and DP&L with and without these three charges is a critical part of any MFA assessment. The results of my analysis, described below, show that (a) under an MRO without such charges, DP&L and DPL would experience financial distress, thereby imperiling DP&L's ability to provide safe and reliable service and invest in grid modernization, and (b) under the Stipulation that includes those charges, DP&L would be able to maintain its financial integrity, which would allow it to achieve its service and grid modernization goals.

V. FINANCIAL CONDITION AND INTEGRITY OF DPL and DP&L WITH AND WITHOUT THE DMR, DIR-B AND RECONCILIATION RIDER

A. INTRODUCTION

Q. What do you mean by the terms "financial condition" and "financial integrity?"

A. 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 ratios.

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 and a firm's credit ratings, all else equal.

As I discuss below, it is typical for regulated utilities and their holding companies, such as DP&L and DPL, to maintain investment grade ratings, indicating that such ratings are necessary for maintaining full financial integrity for such firms.

Q. Is maintaining an investment grade credit rating a reasonable component of financial integrity for DPL and DP&L?

A. Yes. The financial economics literature recognizes several benefits of an investment grade credit rating. Of course, a higher rating is associated with a lower default rate.[8] Many institutions, including banks, insurance companies and broker-dealers, are either prohibited from or limited in their ability to own bonds that are rated below investment grade.[9] 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.

There is evidence that firms adjust their behavior to target credit ratings, especially near the cutoff for investment grade.[10] 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.[11]

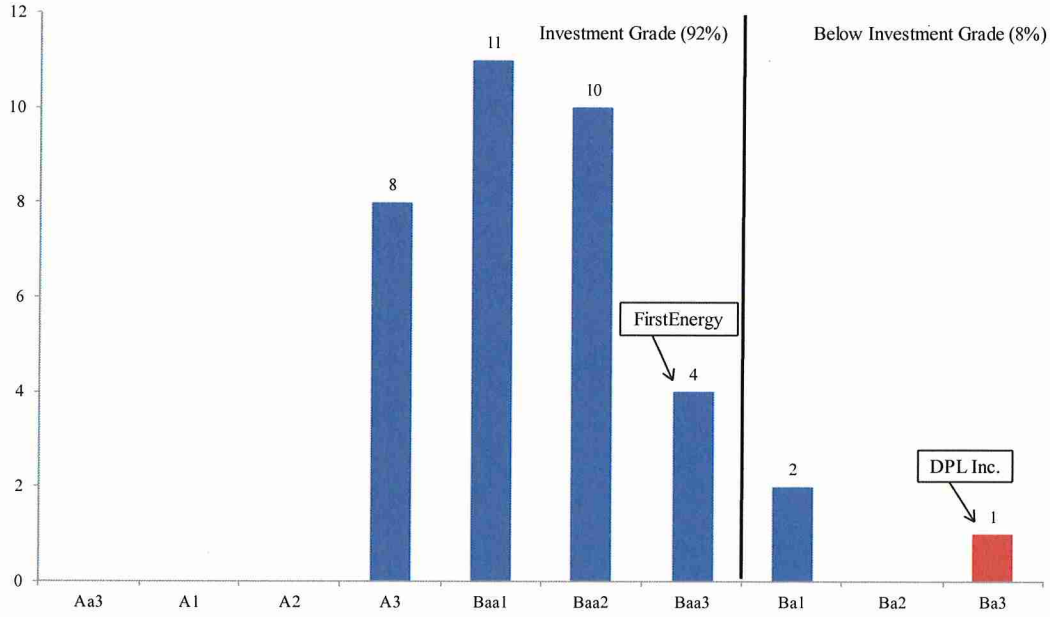
I examined the credit ratings for transmission and distribution utilities and their parent corporations and found that very few have credit ratings below investment grade. Figure 1 shows the frequency of various Moody's credit ratings for utility holding companies, including DPL. Of the 36 rated firms 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

[8] Moody's, *Annual Default Study: Corporate Default and Recovery Rates, 1920-2014*, March 4, 2015.
[9] *See, e.g.*, L. White, "The Credit Rating Agencies," *Journal of Economic Perspectives* 24, 2010, at 213-14.
[10] 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.
[11] D. Kisgen, "Credit Ratings and Capital Structure," *Journal of Finance* 61, 2006, at 1035, 1063.

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.

FIGURE 1

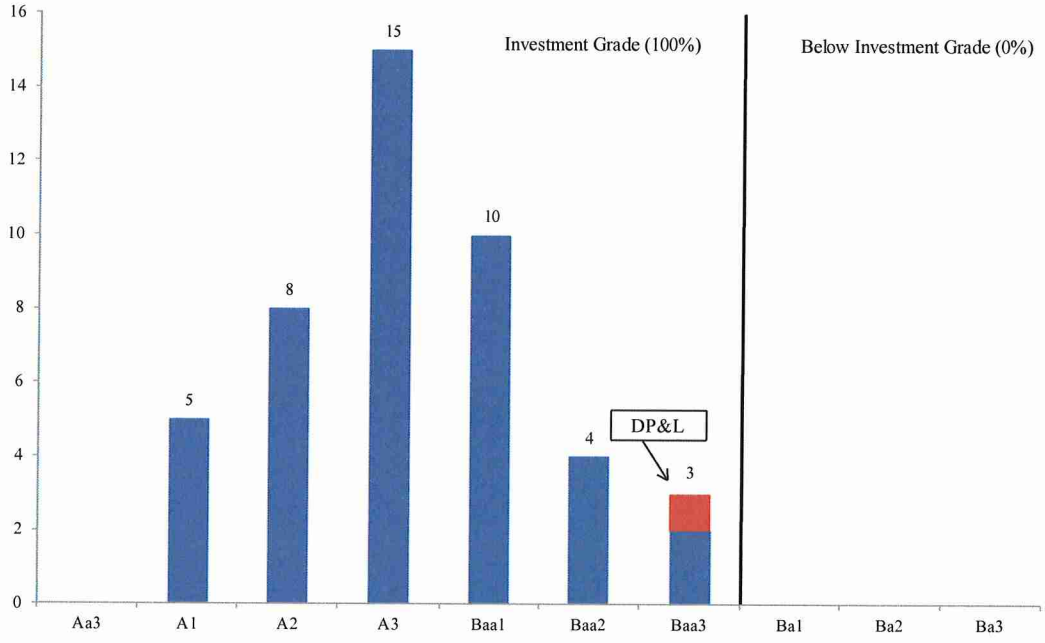
UTILITY HOLDING COMPANIES
MOODY'S CURRENT LONG-TERM DEBT RATING
NUMBER OF COMPANIES BY RATING



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

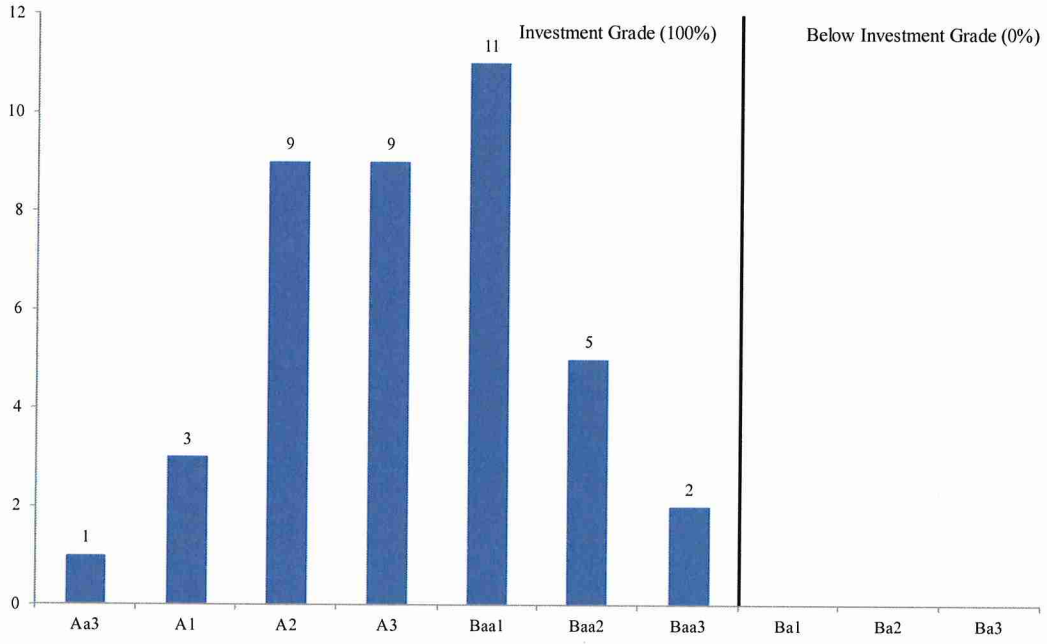
INTEGRATED UTILITY COMPANIES
MOODY'S CURRENT LONG-TERM DEBT RATING
NUMBER OF COMPANIES BY RATING



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.

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.

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.[12] I conclude that it is reasonable to use this rate for DPL or DP&L when operating under the Stipulation or an MRO with non-bypassable charges such as the DMR, DIR-B and Reconciliation 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 the DMR, DIR-B and Reconciliation Rider or other non-bypassable charges due to the higher risk inherent in such scenarios. Nevertheless, I use 10.5 percent as my benchmark ROE for both the Stipulation with the DMR, DIR-B and Reconciliation Rider and an MRO without such charges.

[12] 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.

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 currently 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:

	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.

I understand that, as part of the Stipulation, DP&L has agreed to close certain of these coal generation facilities by June, 2018 and that it also has committed to commence a sale process to sell its interests in the remaining plants.[13]

In addition, DP&L has full or partial ownership of a number of combustion turbine gas-fired peaking plants and diesel plants, which collectively have a summer output of 432 MW. As a parent to DP&L, these generating assets affect DPL as well.

[13] Stipulation II.1.d.

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 customers in a 6,000 square mile area of West Central Ohio. DP&L sources power for its SSO customers through a competitive bid process.[14]

Principal industries located in DP&L's service territory include automotive, food processing, paper, plastic, manufacturing and defense. As a generator, DP&L sells all of its energy and capacity into the wholesale market.

DPL owns other subsidiaries. First, AES Ohio Generation ("AOG") owns and operates peaking generating facilities, from which it makes wholesale sales of electricity. Second, Miami Valley Insurance Company ("MVIC") is an insurance company that provides insurance services to DPL and its subsidiaries. Third, Miami Valley Lighting ("MVLT") is a separate company affiliated with DP&L that provides street and outdoor lighting services to customers in the Dayton region.[15] DPL also has a wholly owned business trust, DPL Capital Trust II, formed for issuing trust capital securities to investors.[16] Together, in 2015 these businesses account for less than four percent of DPL's total revenues.[17]

[14] 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.

In addition, DPL owned DPL Energy Resources, Inc. ("DPLER"), which sold competitive electric energy and other energy services. DPL agreed to sell DPLER on December 28, 2015 and closed the sale on January 1, 2016.[18]

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]

Q. Why do you analyze the financial condition and integrity of DPL in addition to DP&L?

A. The financial condition and integrity of DPL – which depends on its ability to service all of its consolidated debt – affects the financial condition and integrity of DP&L. For example, if DPL experiences financial stress, it would have a negative effect on DP&L including, but not limited to, unfavorable changes in DP&L's credit ratings, increased cost of debt/borrowing costs, and reductions or other limits on capital expenditures or O&M that would negatively affect service quality, and redirecting management attention and effort to managing through financial distress. Also, just as importantly, in the event DP&L seeks incremental capital to finance grid modernization, it will require a healthy parent in order to receive equity capital, to complement debt capital, and to finance these modernization investments.

[18] DPL Inc. and DP&L Form 10-Q for the period ending 06/30/16, at 5.
[19] DPL Inc. and DP&L Form 10-Q for the period ending 06/30/16, at 14.

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 $[redacted] in debt at the end of 2016. DP&L has issued its own debt, which is projected to be approximately $0.8 billion at the end of 2016, leaving approximately $1.1 billion in remaining debt at 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.[20] 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.[21] Thus, the ability of DPL to service its debt and remain a viable

[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.

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.

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

A. DPL can depend to a lesser extent on cash flow from its 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, reduction 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")?

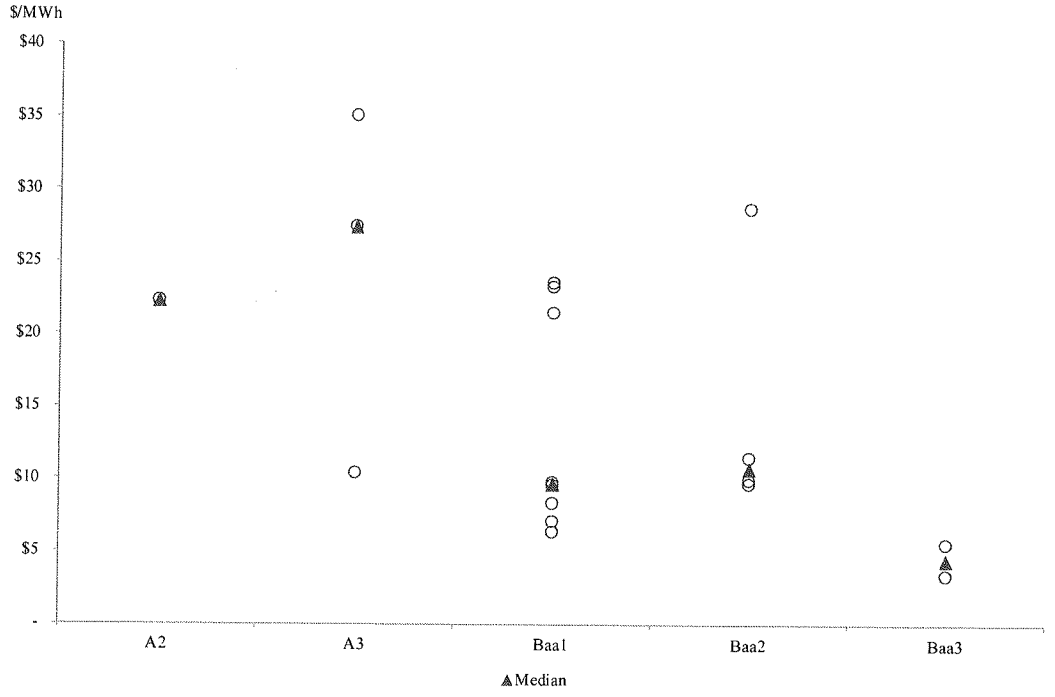
A. Yes. Companies with credit ratings below investment grade are typically in some degree of financial distress. As a result, they may be forced to make difficult choices between

[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.

investments in the future and more immediate demands on their cash. To investigate how credit ratings can affect capital expenditures, I measured capex per MWh and per retail electric customer for a sample of electricity transmission and distribution companies 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

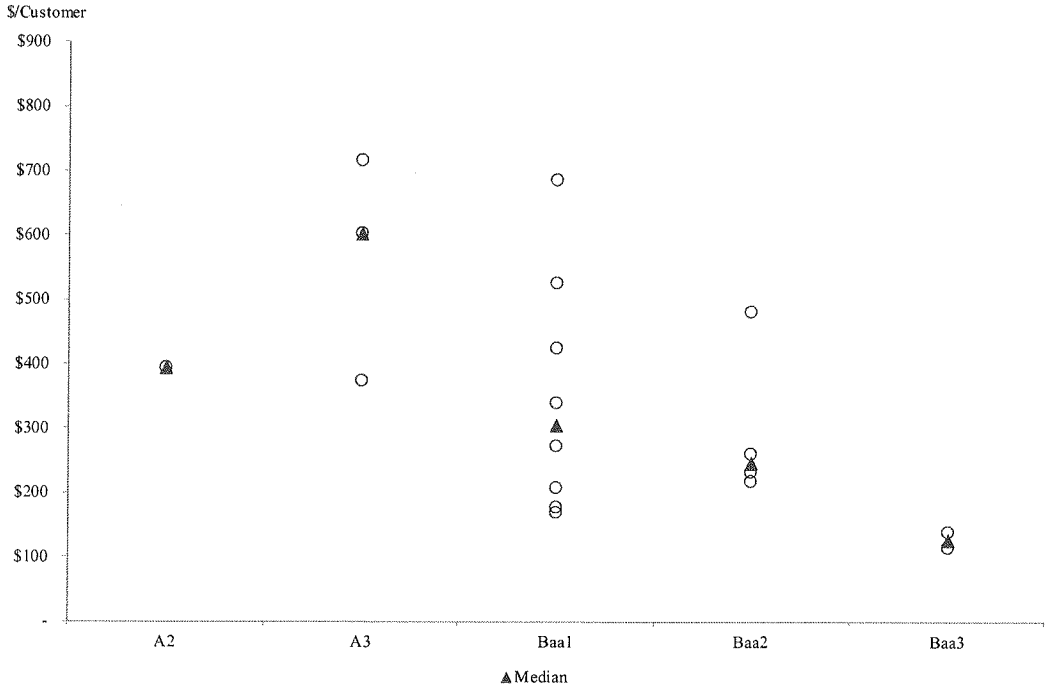
CAPEX PER RETAIL MWH
ELECTRIC TRANSMISSION AND DISTRIBUTION COMPANIES



Notes & Sources:
Calculated as Average CapEx for 2014-2015 divided by Average Retail Electric Volume (MWh) for 2014-2015.
CapEx and Retail Electric Volume (MWh) from SNL. Credit Ratings from Moody's.
Sample from Figure 3. Only includes Electric Transmission and Distribution Companies for which CapEx, Retail Electric Volume (MWh), and Credit Ratings were available.

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 3. Only includes Electric Transmission and Distribution Companies for which CapEx, Retail Electric Volume (MWh), and Credit Ratings were available.

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

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."[24] 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."[25]

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."[26] 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]

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, DIR-B and Reconciliation Rider. The results of these projections are described at the end of the section.

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

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

A. DP&L serves approximately 517,000 customers in 24 counties throughout the Miami Valley in West Central Ohio.[28] The service area comprises the majority of 13 counties surrounding Dayton and portions of an additional 11 counties.[29] According to the U.S. Census, the total population of the 13-county primary area was approximately 1.26 million in 2014, virtually unchanged from the 2010 figure.

---

[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/.

[29] 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 Clinton 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, a 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

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

A. One of my primary assignments is to analyze the financial condition and integrity of DPL and DP&L under the stipulated ESP with the DMR, DIR-B and Reconciliation Rider and an MRO without such charges. 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 stand-alone rating to both entities.

The core methodology that I use is to analyze data from financial projections for 2017 through 2022 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 the financial condition and integrity of each entity over time.

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]

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

A. As shown in Exhibit RJM-19, DPL had approximately $1.18 billion in outstanding debt as of September 30, 2016, composed of a $125 million Term Loan, $57 million in Bonds maturing in 2016, $200 million of bonds maturing in 2019, $780 million in Bonds maturing in 2021 and about $16 million in a Capital Trust. DP&L had approximately $786 million in outstanding debt, including $445 million in First Mortgage Bonds that it 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 $23 million in Preferred Series A, B, and C.

[31] In the model of the stipulated ESP with the DMR, DIR-B and Reconciliation Rider, I adopt the same debt refinancing and retirement assumptions provided to me by the Company. In the model without these charges, 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 will issue 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 without the financial integrity and distribution investment recovery charges.

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/ EBITDA	Min. EBITDA/Interest		Max. 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. I understand that the Company has already pursued cost cutting initiatives, but that they will not be sufficient to allow DPL and DP&L to maintain their financial integrity absent the DMR, DIR-B and Reconciliation Rider. 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."[33]

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

[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] 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.")

analysis assume 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?

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.[34] The ratings from Fitch and S&P are similar and also have negative outlooks: DPL is currently rated "B+" by Fitch and "BB" by S&P.[35] DP&L is rated "BB+" by Fitch and

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

"BB" by S&P.[36] 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."[37] 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.[38] Fitch noted its belief that "PUCO will ultimately authorize an alternative rider for DP&L to mitigate the Ohio Supreme Court ruling."[39] 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

Q. What is the significance of the negative outlook?

A. The outlook indicates the potential direction of ratings in the short to medium term. A negative outlook means that the rating may be downgraded. Typically, rating agencies identify potential future developments that may, individually or collectively, lead to a negative rating action. In particular, Fitch revised DPL's and DP&L's outlook to negative and explained that, "[r]ating downgrades at DPL could be triggered by the absence of timely regulatory support in Ohio and/or continued challenging market conditions for its

[36] SNL Energy.
[37] Fitch Ratings, "Fitch Affirms DPL and DP&L; Outlook Revised to Negative," July 12, 2016.
[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.

merchant generation business. Deterioration of DPL's consolidated adjusted debt-to-operating 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."[40]

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

A. I have created financial projections for 2017 through 2022 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:[41]

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

For each of these variables, I summarize in Exhibit RJM-14 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

[40] Fitch Ratings, "Fitch Affirms DPL and DP&L; Outlook Revised to Negative," July 12, 2016.
[41] *See, e.g.*, Moody's Investors Service, Credit Opinion: DPL Inc., October 13, 2015.

Interest Coverage ratios of 2.8x to 4.2x and similarly rated regulated utilities tend to have ratios of 2.0x to 3.0x.[42]

Cash Flow / Debt is the ratio of cash flow from operations before changes in working capital relative to debt.[43] A higher ratio indicates a stronger financial position and a 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 utilities tend to have ratios of 5 percent to 13 percent.[44]

Retained Cash Flow / Debt is similar to *Cash Flow / Debt*, except the numerator subtracts dividend payments from *Cash Flow*. For DPL, the projections do not include any dividends so there is no difference in the two measures of cash flows. Moody's indicates 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 of 0 percent to 9 percent.[45]

Debt / Capital is calculated as the ratio of debt to capital (which includes short- and long-term debt, common equity, preferred stock and deferred taxes). The ratio indicates the degree of financial leverage. A higher ratio (greater leverage) is indicative of a lower

---

[42] 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 in part on DP&L owning the coal-fired generating assets.

[43] For DPL, I subtract income tax from operating cash flow, because operating cash flow excludes income tax due to AES's foregone taxes due from DPL.

[44] 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.

[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.

credit rating. Moody's indicates that Ba-rated regulated utilities tend to have *Debt / Capital* ratios of 55 percent to 65 percent;[46] it does not include Debt / Capital among the factors with explicit weight in its evaluation of unregulated power companies.[47]

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 companies.

Metric	Regulated Utilities[48]	Unregulated Power Companies[49]
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-14. 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.[50] The composite rating score would be $0.1875\times9 + 0.375\times12 + 0.25\times9 + 0.1875\times15 = 11.25$, which translates to a rating of "Ba1."[51]

[46] Moody's Investors Service (2013) Rating Methodology for Regulated Electric and Gas Utilities, at 38.
[47] Moody's Investors Service (2014) Rating Methodology for Unregulated Utilities and Unregulated Power Companies, at 36.
[48] Moody's Investors Service (2013) Rating Methodology for Regulated Electric and Gas Utilities, at 6.
[49] Moody's Investors Service (2014) Rating Methodology for Unregulated Utilities and Unregulated Power Companies, at 8
[50] 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. For regulated utilities such as DP&L, Moody's does provide a grid of leverage ranges and a leverage ratio of 74
(footnote cont'd...)

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

A. I focus primarily on the Standard Grid for regulated utilities because that is what Moody's uses currently. Certainly the Standard Grid is appropriate for the scenario with the DMR, DIR-B and Reconciliation Rider because the non-bypassable charges significantly increase the proportion of DPL and DP&L revenues that are fixed from a regulatory perspective and, therefore, relatively certain to be realized. The Standard Grid is also appropriate because as part of the Stipulation DPL and DP&L have committed to ceasing commercial operations at two coal generation plants and commencing a sales process for the remaining coal generation plants. However, in the scenario without the DMR, DIR-B and Reconciliation Rider, DPL and DP&L will still earn revenues from their regulated transmission and distribution business and likely from coal generation assets, but would no longer earn revenues from a fixed non-bypassable charge. As a result, their total revenues would be less like regulated revenues and more like unregulated revenues. Under that scenario, therefore, the unregulated Moody's grid becomes relevant. Accordingly, I have calculated indicated ratings for DPL and DP&L using both the regulated and unregulated Moody's methodologies in the scenario without the DMR, DIR-B and Reconciliation Rider.

(...cont'd)
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.

[51] 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").

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

A. Yes. The credit rating agencies consider a broader array of factors, some of which require a subjective determination. I have focused on the above four quantitative factors in order to avoid subjectivity. As a result, the assigned ratings should be interpreted as indicative rather than predictions of actual ratings. However, I note that the example above uses the 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,[52] 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-21, 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.

[52] 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.

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.

D. INPUT DATA FOR FINANCIAL PROJECTIONS

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

A. The financial projections are based on DP&L's dispatching model for the period from 2017 to 2022. The pro forma financial statements that serve as the primary input to my model were provided to me by the Company.

Q. Have you done anything to assure yourself that the input data for the financial projections are sound?

A. Yes. I have performed the following procedures:

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

- I tested the projections by comparing them to historical performance of the Company and its peers.

- I compared the projections for the regulated utility to those filed by DP&L in its pending rate case before PUCO.[53]

- 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.

Q. What were the results of this analysis?

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

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

A. As of September 30, 2016, the combined entities had $2.0 billion in debt of various types, as shown in Exhibit RJM-19. As of the end of 2016, the consolidated balance is expected to be approximately $[redacted] as discussed above. DPL had $1.18 billion in debt outstanding, including but not limited to, $200 million of bonds maturing in 2019 and $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. I understand from the Company that this debt has several

[53] 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.

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.

E. DPL'S AND DP&L'S PROJECTED FINANCIAL CONDITION AND INTEGRITY WITHOUT THE DMR, DIR-B AND RECONCILIATION RIDER

Q. Please describe the projected financial condition of DPL and DP&L without the DMR, DIR-B and Reconciliation Rider.

A. [redacted]

[54] 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.

[redacted]

As discussed above, it is unlikely that additional debt financing required by DPL would be available at reasonable prices given (a) its projected financially stressed situation during these years and (b) the significant amounts of DPL debt that will mature in the near future. Reducing capital or operating expenditures to generate the necessary cash would be problematic because it would have both short- and long-term negative effects on DPL, DP&L, and the customers they serve.

[redacted]

[redacted]

[55] 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.
[56] 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 6

DPL INC. FINANCIAL COVENANTS
DEBT/EBITDA

FIGURE 7

DPL INC. FINANCIAL COVENANTS
EBITDA/INTEREST

[redacted]

10

[redacted]

19

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

A. DP&L's customers would face a number of negative consequences. In fact, the financial condition of both DPL and DP&L is already compromised such that some of these negative consequences may already exist. If no DMR, DIR-B and Reconciliation Rider are awarded, and the financial condition of DPL and DP&L worsens, the impacts will be magnified and more invasive.

- Based on my analysis of capital expenditures by financially distressed firms described above, DP&L would reduce or delay such expenditures. All else equal, this reduction would result in a less effective and less reliable infrastructure for delivering electric service, which would harm customers and the state of Ohio more generally.

- DP&L would have no ability to finance investment in grid modernization, preventing its customers from benefiting from new technology like customers in other states.

- Management and regulators' attention and effort would be diverted from their normal duties aimed at fulfilling customers' needs to dealing with the financial distress. This diversion also would cause harm to customers through reduced service quality.

- The increased cost of debt at DP&L would increase electric rates.

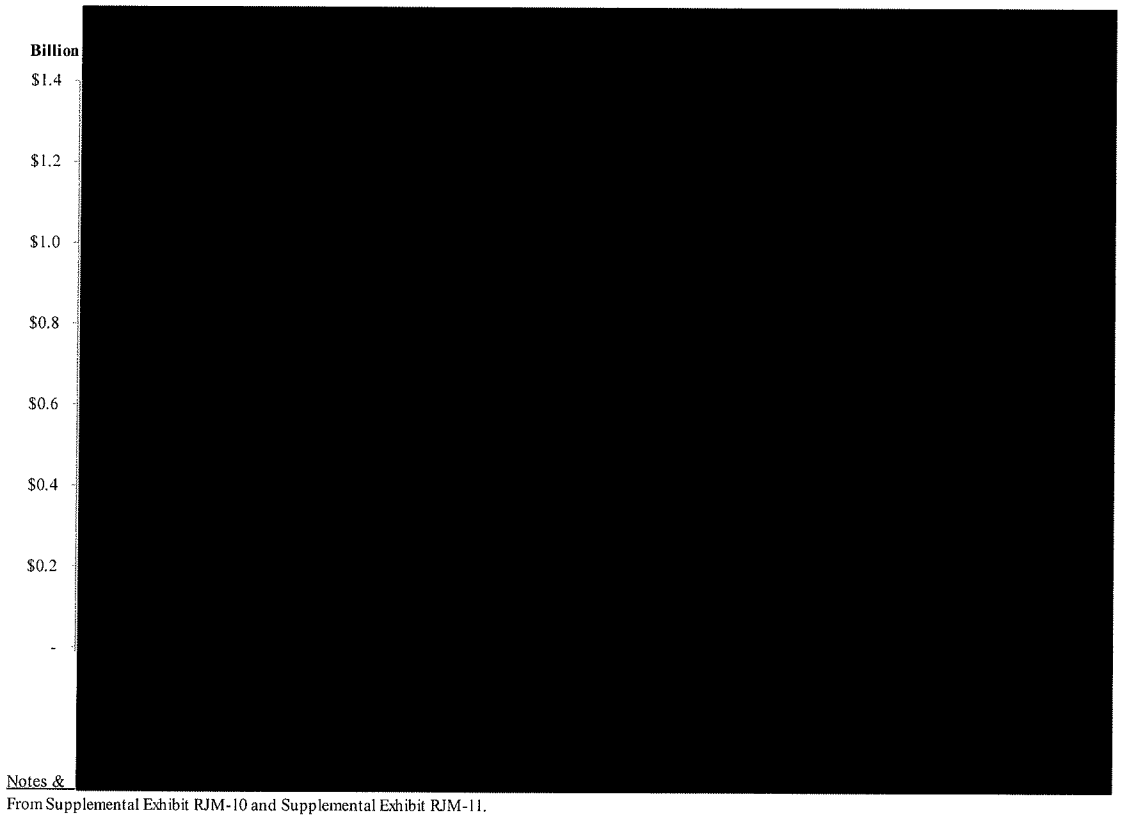
- DP&L likely would invest less in service operations, which would reduce the quality of customer service and customer satisfaction.

Q. Can you elaborate more on DPL's debt level absent the DMR, DIR-B and Reconciliation Rider?

A. [redacted]

FIGURE 8

DPL INC. AND DP&L TOTAL DEBT



Notes &
From Supplemental Exhibit RJM-10 and Supplemental Exhibit RJM-11.

F. DPL'S and DP&L'S PROJECTED FINANCIAL CONDITION AND INTEGRITY WITH THE DMR, DIR-B AND RECONCILIATION RIDER

Q. How do the results of the above analysis of the financial condition and integrity of DPL and DP&L without the DMR, DIR-B and Reconciliation Rider impact the MFA Test?

A. These results show that, without the stipulated ESP with these three charges, DPL and DP&L would encounter financial distress, which would have significant negative consequences for DP&L's customers. In contrast, with these charges included in their revenues and cash flows, DPL's and DP&L's financial condition and integrity can be expected to improve significantly. My analysis of this scenario is discussed below. This significant improvement in DPL's and DP&L's finances represents a major non-quantifiable benefit of the stipulated ESP with the DMR, DIR-B and Reconciliation Rider, relative to an MRO without the three non-bypassable charges. Thus, this analysis is an important input to my "more favorable in the aggregate" analysis.

Q. Please describe how these results would change under the stipulated ESP with the DMR, DIR-B and Reconciliation Rider included in DPL's and DP&L's revenues and cash flows.

A. [redacted]

[redacted]

I note that these ratings assume implicitly that the rating agencies would treat the three non-bypassable financial integrity and distribution investment recovery charges as permanent, rather than discounting it to reflect the fact they would end for the most part after 2021.

Q. What impact does the improvement in credit ratings have on DPL and DP&L?

A. The DMR, DIR-B and Reconciliation Rider provide immediate long-term stability and certainty regarding future cash flows, which will enable DP&L to manage successfully short-term debt maturities and to mitigate both the short- and long-term debt refinancing risks inherent in the outlook absent the three non-bypassable charges.

[redacted]

20

[57] The DMR and DIR-B charges are meant primarily for mandatory debt reduction and capital investment, not "discretionary" profit. It therefore makes economic sense to exclude them from the ROE calculations. This approach is consistent with the Stipulation, which contains an agreement to exclude DMR and DIR-B "revenues [sic]" from the Significant Excessive Earnings Test ("SEET") calculations.

[redacted]

Q. Can you explain how DPL and DP&L will pay down debt under an ESP with a DMR, DIR-B and Reconciliation Rider?

A. [redacted]

Q. Does the Stipulation with the three non-bypassable financial integrity and distribution investment recovery charges provide other, non-quantifiable benefits relative to an MRO?

A. Yes. The Stipulation provides additional non-quantifiable benefits that would not be experienced under an MRO. In particular:

1. As to the renewables commitment in the Stipulation, all parties – including the Signatory Parties and Non-Opposing Parties – retain their "right to challenge the renewable investments."[58] In evaluating a proposal for renewables in a separate EL-RDR proceeding, the Commission "may consider among other relevant matters the economics and proposed PPA price associated with each project, as compared to other available market prices for such projects."[59] The Commission

[58] Stipulation, ¶ VI.7.
[59] Id. ¶ VI.6.

presumably would not approve those programs unless it concluded that they provided net benefits.

2. The Stipulation also provides for a Smart Grid Rider ("SGR") to allow DP&L to implement grid modernization after the Commission's grid modernization initiative is complete.[60] Grid modernization will provide substantial non-quantifiable benefits to customers. I understand that the ESP statute has specific language authorizing the recovery of those costs as they are incurred through a rider, while the MRO statute has no such provision.[61] In theory, DP&L could still implement grid modernization under an MRO and seek recovery of the associated costs in a distribution rate case. However, as I note above, under my second MRO scenario in which DP&L would not have access to the funds from the financial integrity and distribution investment charges, DP&L would be experiencing severe financial distress and would not have the funds to implement grid modernization at all. Under my first scenario, in which the three non-bypassable financial integrity and distribution investment charges would be available under an MRO, there still would be a substantial delay between investment in grid modernization and the recovery of the costs in a subsequent distribution rate case. This delay would make it impossible for DP&L to implement grid modernization in a timely manner under a hypothetical MRO.

3. AES has made two valuable commitments in the Stipulation. The first is that it has agreed not to take any dividends from DPL during the term of the DMR and

[60] Id. ¶ II.3.
[61] Ohio Rev. Code § 4928.143(B)(2)(h).

DIR-B. While AES historically has not been taking such dividends, which has benefited DP&L and its customers by allowing DPL to use all available funds to service its debt, obtaining such an agreement clearly is valuable. Second, AES has committed to continue to forego tax payments from DPL during the term of the DMR and DIR-B. This commitment is of substantial value and, from an economic perspective, represents a form of temporary equity or subordinated debt investment. The economic value of this written commitment is difficult to quantify under the circumstances. However, as a result of AES foregoing tax payments, as well as AES' agreement not to take dividends, AES is contributing approximately $[redacted] million in additional cash flow available for debt service and improving the company's overall financial health over the term of the DMR and DIR-B with the three non-bypassable charges, than the cash flow it would have without the foregone tax payments (Exhibit RJM-11). These commitments, which would not be present under an MRO, thus help to ensure the Companies' return to financial integrity, thereby providing non-quantifiable benefits under the Stipulation relative to an MRO.

4. Under the Stipulation, DP&L would remain subject to the Significantly Excessive Earnings Test ("SEET"), while it would not be subject to that test under an MRO. The Stipulation thus provides protections to customers in the event that unexpected changes in DP&L's financial condition should occur.

5. I understand that once an MRO is approved, the utility cannot thereafter file an ESP. Approval of the stipulated ESP thus provides the benefit of providing

options to the Commission in future proceedings, to the extent that future ESPs would be more favorable than future MROs.

6. I understand that the Companies have agreed that DP&L will initiate a process to divest itself of its interest in the coal assets that are not closed down. The rating agencies consider DP&L's ownership of coal assets to be a "credit negative."[62] Therefore, this divestiture would enhance the Companies' credit rating profile under the Stipulation relative to a hypothetical MRO, all else equal. This would have several benefits for customers including, potentially, lower financing costs.

7. I also understand that individual signatory parties would obtain non-quantifiable benefits from the following commitments by the Companies in the Stipulation that would not be present under an MRO:[63]

   a. DP&L will explore a partnership with the City of Dayton and the University of Dayton's Hanley Sustainability Institute for a program supporting mutual goals for all three of the organizations.

   b. All City of Dayton accounts existing at the time of execution of the Stipulation will be exempt from paying redundant service charges, including the Redundant Service Rider or equivalent rider, which seek to recover the costs of providing standby or backup service.

   c. AES will maintain DP&L's operating headquarters in the City of Dayton, Ohio. In addition to retaining jobs in the community, this commitment has

[62] Moody's Investors Service, "Credit Opinion: Dayton Power & Light," March 1, 2016.
[63] Stipulation, ¶ X.

significant multiplier effects in that those employees support local businesses.

d. DP&L will work with the City of Dayton to develop an "apprenticeship" program targeted at Dayton residents and to provide special hiring outreach for City of Dayton residents.

e. DP&L and Honda will work together to develop and automate Energy Star bench marking for Honda suppliers in DP&L's service territory.

f. DP&L will work with the Ohio Hospital Association on an annual energy efficiency program targeted at OHA members in the DP&L territory.

g. DP&L will eliminate any charges associated with the Alternate Feed Charges that currently are being charged to certain OHA members, and it will exempt OHA members from paying that charge as requested in DP&L's pending Distribution Rate Case.

In sum, the Stipulation provides a number of non-quantifiable benefits that would not be available under a hypothetical MRO.

Q. Have you considered any non-quantifiable or quantifiable costs or benefits from DP&L's agreement to close two of the coal generation facilities in which it owns an interest, and to initiate a process to divest itself of its interest in the remaining coal plants?

A. [redacted] In fact, the impact of increasing investment in distribution and transmission infrastructure as well as the development of 300MW of renewable energy resources has the potential to create jobs in Ohio.

VI. CONCLUSIONS REGARDING THE MFA TEST

Q. Do you conclude that the Stipulation is "more favorable in the aggregate" than an MRO?

A. Yes. Assuming that an MRO would include the DMR, DIR-B and the Reconciliation Rider, the Aggregate Price Test would be a wash and the Stipulation would be superior to an MRO due to (a) quantifiable benefits totaling at least $11.5 million over the life of the Stipulation, and (b) significant non-quantifiable benefits, derived, in particular, from more rapid and robust grid modernization and the guarantees from AES regarding dividends and tax payments totaling over $[redacted] million in additional cash flow available for debt service and improving the company's overall financial health.

If an MRO would not include non-bypassable integrity and distribution investment charges with financial support similar to the DMR, DIR-B and Reconciliation Rider, the stipulated ESP would be more expensive based solely on the Aggregate Price Test. However, Stipulation would provide significant non-quantifiable benefits not available under an MRO, most notably (a) ensuring the financial integrity of DPL and DP&L, which would allow the Companies to provide safe and reliable service to their customers, (b) allowing DP&L to modernize its distribution grid; (c) and the other benefits identified above that would not be available under an MRO. In my opinion, these non-quantifiable benefits would clearly outweigh the higher charges based on the Aggregate Price Test. Under this scenario, therefore, the Stipulation still would be more favorable in the aggregate than a hypothetical MRO.

Q. Does this conclude your direct testimony?

A. Yes, it does.

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing R. Jeffrey Malinak Testimony in Support of the Stipulation and Recommendation has been served via electronic mail upon the following counsel of record, this 6th day of February, 2017:

Thomas McNamee
Natalia Messenger
Public Utilities Commission of Ohio
30 East Broad Street, 16th Floor
Columbus, OH 43215-3793
Email:
thomas.mcnamee@ohioattorneygeneral.gov
natalia.messenger@ohioattorneygeneral.gov

Attorneys for PUCO Staff

Kimberly W. Bojko
James D. Perko, Jr.
Carpenter Lipps & Leland LLP
280 North High Street, Suite 1300
Columbus, OH 43215
Email: bojko@carpenterlipps.com
perko@carpenterlipps.com

Attorneys for The Ohio Manufacturers' Association Energy Group

Kevin R. Schmidt
88 East Broad Street, Suite 1770
Columbus, OH 43215
Email: schmidt@sppgrp.com

Attorney for The Energy Professionals of Ohio

Frank P. Darr (Counsel of Record)
Matthew R. Pritchard
McNees Wallace & Nurick
21 East State Street, 17th Floor
Columbus, OH 43215
Email: fdarr@mwncmh.com
mpritchard@mwncmh.com

Attorneys for Industrial Energy Users – Ohio

David F. Boehm
Michael L. Kurtz
Kurt J. Boehm
Jody Kyler Cohn
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, OH 45202
Email: dboehm@BKLlawfirm.com
mkurtz@BKLlawfirm.com
kboehm@BKLlawfirm.com
jkylercohn@BKLlawfirm.com

Attorneys for The Ohio Energy Group

Joseph Oliker (Counsel of Record)
Matthew White
Evan Betterton
IGS Energy
6100 Emerald Parkway
Dublin, OH 43016
Email: joliker@igsenergy.com
mswhite@igsenergy.com
Ebetterton@igsenergy.com

Attorney for IGS Energy

Jeffrey W. Mayes
Monitoring Analytics, LLC
2621 Van Buren Avenue, Suite 160
Valley Forge Corporate Center
Eagleville, PA 19403
Email: jeffrey.mayes@monitoringanalytics.com

Attorneys for Monitoring Analytics, LLC as
The Independent Market Monitor for PJM

Trent Dougherty (Counsel of Record)
Miranda Leppla
Ohio Environmental Council
1145 Chesapeake Ave., Suite 1
Columbus, OH 43212-3449
Email: tdougherty@the OEC.org
mleppla@the OEC.org

Attorney for the Ohio Environmental
Council and Environmental Defense Fund

William J. Michael (Counsel of Record)
Kevin F. Moore
Ajay Kumar
Office of the Ohio Consumers' Counsel
10 West Broad Street, Suite 1800
Columbus, OH 43215-3485
Email: william.michael@occ.ohio.gov
kevin.moore@occ.ohio.gov
ajay.kumar@occ.ohio.gov

Attorneys for the Ohio Consumers' Counsel

Michael D. Dortch
Richard R. Parsons
Kravitz, Brown & Dortch, LLC
65 East State Street, Suite 200
Columbus, OH 43215
Email: mdortch@kravitzllc.com
rparsons@kravitzllc.com

Attorneys for Noble Americas
Energy Solutions LLC

Richard C. Sahli
Richard C. Sahli Law Office, LLC
981 Pinewood Lane
Columbus, OH 43230-3662
Email: rsahli@columbus.rr.com

Christopher M. Bzdok (pro hac vice)

Joel E. Sechler (Counsel of Record)
Carpenter Lipps & Leland
280 N. High St., Suite 1300
Columbus, OH 43215
Email: sechler@carpenterlipps.com

Gregory J. Poulos
EnerNOC, Inc.
P.O. Box 29492
Columbus, OH 43229
Email: gpoulos@enernoc.com

Attorneys for EnerNOC, Inc.

Angela Paul Whitfield
Carpenter Lipps & Leland LLP
280 Plaza, Suite 1300
280 North High Street
Columbus, OH 43215
Email: paul@carpenterlipps.com

Attorney for The Kroger Co.

Colleen Mooney
Ohio Partners for Affordable Energy
231 West Lima Street
P.O. Box 1793
Findlay, OH 45839-1793
Email: cmooney@ohiopartners.org

Attorney for Ohio Partners for Affordable Energy

Madeline Fleisher
Kristin Field
Environmental Law & Policy Center
21 West Broad Street, Suite 500
Columbus, OH 43215
Email: mfleisher@elpc.org
kfield@elpc.org

Attorneys for The Environmental Law & Policy Center

Steven D. Lesser
James F. Lang
N. Trevor Alexander
Mark T. Keaney
Calfee, Halter & Griswold LLP
41 South High Street
1200 Huntington Center

Olson Bzdok & Howard, P.C.
420 East Front Street
Traverse City, MI 49686
chris@envlaw.com

Tony G. Mendoza, Staff Attorney (pro hac vice)
Kristin Henry, Senior Staff Attorney (pro hac vice)
Sierra Club Environmental Law Program
2101 Webster Street, 13th Floor
Oakland, CA 94612
Email: tony.mendoza@sierraclub.org
kristin.henry@sierraclub.org

Attorneys for Sierra Club

Michael J. Settineri
Stephen M. Howard
Gretchen L. Petrucci
Ilya Batikov
William A. Sieck
Vorys, Sater, Seymour and Pease LLP
52 E. Gay Street
Columbus, OH 43215
Email: mjsettineri@vorys.com
smhoward@vorys.com
glpetrucci@vorys.com
ibatikov@vorys.com
wasieck@vorys.com
Attorneys for Dynegy Inc.,
PJM Power Providers Group, and
Retail Energy Supply Association

Michelle Grant
Dynegy Inc.
601 Travis Street, Suite 1400
Houston, TX 77002
Email: michelle.d.grant@dynegy.com

Attorneys for Dynegy Inc.

Glen Thomas
1060 First Avenue, Suite 400
King of Prussia, PA 19406
Email: gthomas@gtpowergroup.com

Sharon Theodore
Electric Power Supply Association
1401 New York Ave. NW 11th Floor
Washington, DC
Email: stheodore@epsa.org

Columbus, OH 43215
Email: slesser@calfee.com
jlang@calfee.com
talexander@calfee.com
mkeaney@calfee.com

Attorneys for The City of Dayton and
Honda of America Mfg., Inc.

Lisa M. Hawrot
Spilman Thomas & Battle, PLLC
Century Centre Building
1233 Main Street, Suite 4000
Wheeling, WV 26003
Email: lhawrot@spilmanlaw.com

Derrick Price Williamson
Spilman Thomas & Battle, PLLC
1100 Bent Creek Blvd., Suite 101
Mechanicsburg, PA 17050
Email: dwilliamson@spilmanlaw.com

Carrie M. Harris
Spilman Thomas & Battle, PLLC
310 First Street, Suite 1100
P.O. Box 90
Roanoke, VA 24002-0090
Email: charris@spilmanlaw.com

Steve W. Chriss
Senior Manager, Energy Regulatory Analysis
Greg Tillman
Senior Manager, Energy Regulatory Analysis
Wal-Mart Stores, Inc.
2001 SE 10th Street
Bentonville, AR 72716-0550
Email: Stephen.Chriss@walmart.com
Greg.Tillman@walmart.com

Attorneys for Wal-Mart Stores East, LP
and Sam's East, Inc.

Evelyn R. Robinson
2750 Monroe Boulevard
Audubon, PA 19403
Email: evelyn.robinson@pjm.com

Attorney for PJM Interconnection, L.L.C.

Richard L. Sites
Ohio Hospital Association
155 East Broad Street, 3rd Floor
Columbus, OH 43215-3620

Laura Chappelle
201 North Washington Square, Suite 910
Lansing, MI 48933
Email: laurac@chappelleconsulting.net

Attorneys for PJM Power Providers Group

Ellis Jacobs
Advocates for Basic Legal Equality, Inc.
130 West Second Street, Suite 700 East
Dayton, OH 45402
Email: ejacobs@ablelaw.org

Attorney for Edgemont Neighborhood Coalition

Amy B. Spiller
Jeanne W. Kingery
Elizabeth H. Watts
Duke-Energy Ohio, Inc.
139 East Fourth Street
1303-Main
Cincinnati, OH 45202
Email: amy.spiller@duke-energy.com
jeanne.kingery@duke-energy.com
elizabeth.watts@duke-energy.com

Attorneys for Duke-Energy Ohio, Inc.

Email: rick.sites@ohiohospitals.org

Matthew W. Warnock
Dylan F. Borchers
Bricker & Eckler LLP
100 South Third Street
Columbus, OH 43215-4291
Email: mwarnock@bricker.com
dborchers@bricker.com

Attorneys for The Ohio Hospital Association

Terrence N. O'Donnell
Raymond D. Seiler
Christine M.T. Pirik
William V. Vorys
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, OH 43215
Email: todonnell@dickinsonwright.com
rseiler@dickinsonwright.com
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Mid-Atlantic Renewable Energy Coalition

1

Devin D. Parram
Bricker & Eckler LLP
100 South Third Street
Columbus, OH 43215-4291
Email: dparram@bricker.com

Attorney for People Working
Cooperatively, Inc.

Carl Tamm
President
Classic Connectors, Inc.
382 Park Avenue East
Mansfield, OH 44905
Email: crtamm@classicconnectors.com

John R. Doll
Matthew T. Crawford Doll, Jansen & Ford
111 West First Street, Suite 1100
Dayton, OH 45402-1156
Email: jdoll@djflawfirm.com
mcrawford@djflawfirm.com

Attorneys for Utility Workers of
America Local 175

C. David Kelley, Prosecutor
Dana N. Whalen
110 West Main Street
West Union, OH 45693
Email: prosecutorkelley@usa.com
dana.whalen@adamscountyoh.gov

Attorneys for Adams County, Ohio,
Monroe Township, Ohio and
Manchester Local School District

/s/ Jeffrey S. Sharkey
Jeffrey S. Sharkey

1148437.1

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

2000-	*Managing Principal,* Analysis Group, Inc. (Washington, D.C.). 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," Litigation Services Handbook, The Role of the Financial Expert, Chapter 7 (pp. 7.1-7.22), Fourth Edition (2007) (co-authored with G. Jetley and L. Stamm).

SPEECHES/COURSES

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

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

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

NEWSLETTER ARTICLES

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

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

EXHIBIT RJM-1

NET PRESENT VALUE OF DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

	2017	2018	2019	2020	2021	2022	Total
DMR	$90,000,000	$90,000,000	$90,000,000	$90,000,000	$90,000,000	-	$450,000,000
DIR-B	$35,500,000	$36,500,000	$37,500,000	$38,500,000	$39,500,000	$20,000,000	$207,500,000
Reconciliation Rider	[redacted]						
Total							

	Net Present Value			
Discount Rate	DMR	DIR-B	Reconciliation Rider	Total
4%	$408,598,721	$186,012,898	[redacted]	
6%	$390,320,456	$176,644,879		
8%	$373,441,139	$168,061,262		
10%	$357,822,963	$160,178,503		
12%	$343,344,289	$152,923,572		

Notes & Sources:
NPV calculated using mid-year convention.
DIR in 2022 collected under DIR-A.
Reconciliation Rider from internal Company projections.
From Stipulation and Recommendation, Public Utilities Commission of Ohio Case Nos. 16-0395-EL-SSO, 16-0396-EL-ATA, 16-0397-EL-AAM, January 30, 2017, at 5-6.

EXHIBIT RJM-2

DPL INC. PRO FORMA FINANCIAL RATIOS
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

Ratio	2017	2018	2019	2020	2021	2022
DMR, DIR-B and Reconciliation Rider Debt	[redacted]					
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-14.
Weighted Average based on weights of 37.50% (Interest Coverage), 25.00% (CF/Debt), 18.75% (RCF/Debt), and 0.00% (Debt/Capital).
Implied Unregulated Ratings calculated using Moody's Rating Methodology, Unregulated Utilities and Unregulated Power Companies, October 31, 2014. See Exhibit RJM-14. 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.

EXHIBIT RJM-3

DPL INC. PRO FORMA FINANCIAL RATIOS
WITH DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

Ratio	2017	2018	2019	2020	2021	2022
DMR, DIR-B and Reconciliation Rider Debt	[redacted]					
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.
DIR in 2022 collected under DIR-A.
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-14.
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-14. 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.

EXHIBIT RJM-4

DP&L PRO FORMA FINANCIAL RATIOS
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

Ratio	2017	2018	2019	2020	2021	2022
DMR, DIR-B and Reconciliation Rider Debt	[redacted]					
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 Debt. / Total Capitalization.
Implied Regulated Ratings calculated using Moody's Rating Methodology, 'Regulated Electric and Gas Utilities,' December 23, 2013. See Exhibit RJM-14.
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-14. 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-12 and Exhibit RJM-17.

EXHIBIT RJM-5

DP&L PRO FORMA FINANCIAL RATIOS
WITH DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

Ratio	2017	2018	2019	2020	2021	2022
DMR, DIR-B and Reconciliation Rider Debt	[redacted]					
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						

Notes & Sources:
In thousands.
DIR in 2022 collected under DIR-A.
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-14.
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-13 and Exhibit RJM-18.

EXHIBIT RJM-6

DP&L
RETURN ON EQUITY (ROE)
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER

	2017	2018	2019	2020	2021	2022	Average 2017-2022
[1] Unadjusted ROE	[redacted]						
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							

Notes & Sources:
[1] = Net Income / Total Shareholders' Equity. See Exhibit RJM-17.
[2] From Exhibit RJM-17.
[3] = [2] * (1 - 35.84%).
[4] From Exhibit RJM-17.
[5] From internal company projections.
[6] = [4] + [5].
[7] = [3] / [6].

EXHIBIT RJM-7

DP&L
RETURN ON EQUITY (ROE)
WITH DMR, DIR-B AND RECONCILIATION RIDER

	2017	2018	2019	2020	2021	2022	Average 2017-2022
[1] Unadjusted ROE	[redacted]						
Adjusted ROE							
[2] Earnings Before Income Tax							
[3] Less DMR, DIR-B and Reconciliation Rider							
[4] Earnings Before Income Tax, Excluding DMR, DIR-B and Reconciliation Rider							
[5] Net Income, Excluding DMR							
[6] Total Shareholders' Equity							
[7] Less Cumulative DMR, DIR-B and Reconciliation Rider							
[8] Prior Asset Impairment Charge							
[9] Total Shareholders' Equity, Excluding DMR, DIR-B and Reconciliation Rider and Asset Impairment							
[10] Total Shareholders' Equity, Excluding DMR, DIR-B and Reconciliation Rider							
[11] Average Annual ROE, Excluding DMR, DIR-B and Reconciliation Rider and Asset Impairment							
[12] Average Annual ROE, Excluding DMR, DIR-B and Reconciliation Rider							

Notes & Sources:

[1] = Net Income / Total Shareholders' Equity. See Exhibit RJM-18.
[2]-[3] From Exhibit RJM-18.
[4] = [2] + [3].
[5] = [4] * (1 - 35.84%).
[6] From Exhibit RJM-18.
[7] For 2017, equals DMR, DIR-B and Reconciliation Rider * (1 - 35.84%). For subsequent years, equals prior year Cumulative DMR, DIR-B and Reconciliation Rider + current year DMR, DIR-B and Reconciliation Rider * (1 - 35.84%).
[8] From internal company projections.
[9] = [6] + [7] + [8].
[10] = [6] + [7].
[11] = [5] / [9].
[12] = [5] / [10].

EXHIBIT RJM-8

SUMMARY OF DEBT ACTIVITY
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

		2017	2018	2019	2020	2021	2022
	Debt Issued by DPL Inc.						
[1]	New Issuance						
[2]	Contractual Paydown						
[3]	Voluntary Paydown						
[4]	Net Change in LT Debt						
[5]	Revolver Draw (Paydown)						
[6]	Net Change in Debt						
	Debt Issued by DP&L						
[7]	New Issuance						
[8]	Contractual Paydown						
[9]	Voluntary Paydown						
[10]	Net Change in LT Debt						
[11]	Revolver Draw (Paydown)						
[12]	Net Change in Debt						
	DPL Inc. Consolidated Debt						
[13]	New Issuance						
[14]	Contractual Paydown						
[15]	Voluntary Paydown						
[16]	Net Change in LT Debt						
[17]	Revolver Draw (Paydown)						
[18]	Net Change in Debt						
[19]	DPL Parent Cash						
[20]	DP&L Cash						
[21]	Other Sub Cash						
[22]	DPL Inc. Consolidated Cash						
[23]	Div from (Equity to) DP&L						
[24]	DPL Inc. Debt/Capital						

Notes & Sources:
In thousands.
[1]-[2] Based on internal Company projections.
[3], [5] Assumption.
[7]-[8] From internal Company projections.
[9], [11] Assumption.
[13] = [1] + [7].
[14] = [2] + [8].
[15] = [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] Assumption.

EXHIBIT RJM-9

SUMMARY OF DEBT ACTIVITY
WITH DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

		2017	2018	2019	2020	2021	2022
	Debt Issued by DPL Inc.						
[1]	New Issuance						
[2]	Contractual Paydown						
[3]	Voluntary Paydown						
[4]	Net Change in LT Debt						
[5]	Revolver Draw (Paydown)						
[6]	Net Change in Debt						
	Debt Issued by DP&L						
[7]	New Issuance						
[8]	Contractual Paydown						
[9]	Voluntary Paydown						
[10]	Net Change in LT Debt						
[11]	Revolver Draw (Paydown)						
[12]	Net Change in Debt						
	DPL Inc. Consolidated Debt						
[13]	New Issuance						
[14]	Contractual Paydown						
[15]	Voluntary Paydown						
[16]	Net Change in LT Debt						
[17]	Revolver Draw (Paydown)						
[18]	Net Change in Debt						
[19]	DPL Parent Cash						
[20]	DP&L Cash						
[21]	Other Sub Cash						
[22]	DPL Inc. Consolidated Cash						
[23]	Div from (Equity to) DP&L						
[24]	DPL Inc. Debt/Capital						

Notes & Sources:
In thousands.
[1]-[2] From internal Company projections.
[3], [5] Assumption.
[7]-[8] From internal Company projections.
[9], [11] Assumption.
[13] = [1] + [7].
[14] = [2] + [8].
[15] = [3] + [9].
[17] = [5] + [11].
[19] From Exhibit RJM-16.
[20] From Exhibit RJM-18.
[21] = 'Cash Held at Subsidiary Level' from Exhibit RJM-16 - [20].
[23] Based on internal Company projections.

EXHIBIT RJM-10

DPL INC.
DATA FOR FINANCIAL RATIO CALCULATIONS
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

	Description	2017	2018	2019	2020	2021	2022
	Statements of Income						
[1]	Total Revenue	[redacted]					
[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 Foregone by Parent						
[10]	CFO 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.
[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.
[10] = [7] - [8] - [9].
[26] = [15] + [24] + [25].
From Exhibit RJM-15 and Exhibit RJM-17.

EXHIBIT RJM-11

DPL INC.
DATA FOR FINANCIAL RATIO CALCULATIONS
WITH DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

Description	2017	2018	2019	2020	2021	2022
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 Foregone by Parent						
[10] CFO 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.
[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.
[10] = [7] - [8] - [9].
[26] = [15] + [24] + [25].
From Exhibit RJM-16 and Exhibit RJM-18.

EXHIBIT RJM-12

DP&L
DATA FOR FINANCIAL RATIO CALCULATIONS
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

Description	2017	2018	2019	2020	2021	2022
Statements of Income						
[1] Total Revenue	[redacted]					
[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-17.

EXHIBIT RJM-13

DP&L
DATA FOR FINANCIAL RATIO CALCULATIONS
WITH DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

Description	2017	2018	2019	2020	2021	2022
Statements of Income						
[1] Total Revenue	[redacted]					
[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-18.

EXHIBIT RJM-14

MOODY'S RATINGS TABLES

Regulated Electric and Gas Utilities

	Interest Coverage		CF/Debt		RCF/Debt		Debt/Capital	
Rating	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	6.0x	8.0x	30.0%	40.0%	25.0%	35.0%	25.0%	35.0%
A	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%	9.0%	17.0%	45.0%	55.0%
Ba	2.0x	3.0x	5.0%	13.0%	0.0%	9.0%	55.0%	65.0%
B	1.0x	2.0x	1.0%	5.0%	-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 Coverage		CF/Debt		RCF/Debt	
Rating	Min	Max	Min	Max	Min	Max
Aaa	18.0x	≥18.0x	90.0%	≥90.0%	60.0%	≥60.0%
Aa	13.0x	18.0x	60.0%	90.0%	45.0%	60.0%
A	8.0x	13.0x	35.0%	60.0%	25.0%	45.0%
Baa	4.2x	8.0x	20.0%	35.0%	15.0%	25.0%
Ba	2.8x	4.2x	12.0%	20.0%	8.0%	15.0%
B	1.0x	2.8x	5.0%	12.0%	3.0%	8.0%
Caa	<1.0x	1.0x	<5.0%	5.0%	<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 - 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-15A

DPL INC.
INCOME STATEMENT
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

	2017	2018	2019	2020	2021	2022
DMR, DIR-B and Reconciliation Rider						
Retail Revenues						
Generation Sales						
Energy and Ancillary Sales						
Capacity Sales						
Wholesale Trading Revenues						
Other Generation Revenues						
Total Generation Revenues						
Other Revenues						
Total Revenues						
Cost of Revenues						
Fuel Related Costs						
Electricity Purchased For Resale						
Other						
Total Cost of Revenues						
Gross Margin						
O&M						
Taxes Other than Income Taxes						
Total Operating Expenses						
Operating EBITDA						
Depreciation and Amortization						
Operating Income						
Interest Expense						
Interest (Income) - Other						
Other Expense / (Income)						
Income Before Taxes						
Current Income Tax Expense						
Deferred Income Tax Expense						
Total Income Taxes						
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.

EXHIBIT RJM-15B

DPL INC.
BALANCE SHEET
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER
2016 – 2022

	2016	2017	2018	2019	2020	2021	2022
ASSETS							
Current Assets							
Cash Held at DPL Inc							
Restricted Cash Held at DPL Inc							
Cash Held at Subsidiary Level							
Accounts Receivable							
Inventory - Fuel and Raw Materials							
Inventory - Spare Parts and Supplies							
General Taxes Applicable to Future Years							
Regulatory Assets - Fixed							
Other Current Assets - Fixed							
Total Current Assets							
Property, Plant & Equipment							
Gross Plant in Service							
Construction Work in Progress							
Accumulated Depreciation							
Net PP&E							
Other Non-Current Assets							
TOTAL ASSETS							
LIABILITIES AND SHAREHOLDERS' EQUITY							
Current Liabilities							
Accounts Payable							
Current Portion of Long-Term Debt							
Short-Term Debt							
Current Income Taxes Payable							
Other Current Liabilities							
Total Current Liabilities							
Non-Current Liabilities							
Long-Term Debt							
Deferred Income Taxes - Non-Current							
Other Non-Current Liabilities							
Total Non-Current Liabilities							
Shareholders' Equity							
Additional Paid-in Capital							
Cumulative Parent Equity Infusion							
Retained Earnings (Accumulated Deficit)							
Total Common Shareholders' Equity							
Non-Controlling Interests (Preferred Stock)							
Total Stockholders' Equity (Deficit)							
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY							

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-15C

DPL INC.
CASH FLOWS
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

	2017	2018	2019	2020	2021	2022
Operating Activities						
Net Income (Loss)						
Adjustments						
Depreciation and Amortization						
Provision for Deferred Taxes						
(Decrease) Increase in Accounts Payable, Pension Contributions and Regulatory Assets						
Decrease (Increase) in Accounts Receivable						
Inventory						
Other Operating Cash Flows						
Net Cash Provided by Operating Activities						
Investing Activities						
CapEx						
Other Investing Activities						
Net Cash Used in Investing Activities						
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-16A

DPL INC.
INCOME STATEMENT
WITH DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

DMR, DIR-B and Reconciliation Rider	2017	2018	2019	2020	2021	2022
Retail Revenues	[redacted]					
Generation Sales						
Energy and Ancillary Sales						
Capacity Sales						
Wholesale Trading Revenues						
Other Generation Revenues						
Total Generation Revenues						
Other Revenues						
Total Revenues						
Cost of Revenues						
Fuel Related Costs						
Electricity Purchased For Resale						
Other						
Total Cost of Revenues						
Gross Margin						
O&M						
Taxes Other than Income Taxes						
Total Operating Expenses						
Operating EBITDA						
Depreciation and Amortization						
Operating Income						
Interest Expense						
Interest (Income) - Other						
Other Expense / (Income)						
Income Before Taxes						
Current Income Tax Expense						
Deferred Income Tax Expense						
Total Income Taxes						
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. DIR in 2022 collected under DIR-A.
From internal Company projections.

EXHIBIT RJM-16B

DPL INC.
BALANCE SHEET
WITH DMR, DIR-B AND RECONCILIATION RIDER
2016 – 2022

	2016	2017	2018	2019	2020	2021	2022
ASSETS							
Current Assets							
Cash Held at DPL Inc							
Restricted Cash Held at DPL Inc							
Cash Held at Subsidiary Level							
Accounts Receivable							
Inventory - Fuel and Raw Materials							
Inventory - Spare Parts and Supplies							
General Taxes Applicable to Future Years							
Regulatory Assets - Fixed							
Other Current Assets - Fixed							
Total Current Assets							
Property, Plant & Equipment							
Gross Plant in Service							
Construction Work in Progress							
Accumulated Depreciation							
Net PP&E							
Other Non-Current Assets							
TOTAL ASSETS							
LIABILITIES AND SHAREHOLDERS' EQUITY							
Current Liabilities							
Accounts Payable							
Current Portion of Long-Term Debt							
Short-Term Debt							
Current Income Taxes Payable							
Other Current Liabilities							
Total Current Liabilities							
Non-Current Liabilities							
Long-Term Debt							
Deferred Income Taxes - Non-Current							
Other Non-Current Liabilities							
Total Non-Current Liabilities							
Shareholders' Equity							
Additional Paid-in Capital							
Cumulative Parent Equity Infusion							
Retained Earnings (Accumulated Deficit)							
Total Common Shareholders' Equity							
Non-Controlling Interests (Preferred Stock)							
Total Stockholders' Equity (Deficit)							
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY							

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. DIR in 2022 collected under DIR-A.
From internal Company projections.

EXHIBIT RJM-16C

DPL INC.
CASH FLOWS
WITH DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

	2017	2018	2019	2020	2021	2022
Operating Activities						
Net Income (Loss)						
Adjustments						
Depreciation and Amortization						
Provision for Deferred Taxes						
(Decrease) Increase in Accounts Payable, Pension Contributions and Regulatory Assets						
Decrease (Increase) in Accounts Receivable						
Inventory						
Other Operating Cash Flows						
Net Cash Provided by Operating Activities						
Investing Activities						
CapEx						
Other Investing Activities						
Net Cash Used in Investing Activities						
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. DIR in 2022 collected under DIR-A.
From internal Company projections.

EXHIBIT RJM-17A

DP&L
INCOME STATEMENT
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

	2017	2018	2019	2020	2021	2022
Total Transmission Revenues	[redacted]					
Total Distribution Revenues						
DMR, DIR-B and Reconciliation Rider						
Total SSO Revenues						
Total Trading Book Revenues						
Total DP&L Generation Revenues						
Total Revenues						
Total Transmission COGS						
Total Distribution COGS						
Total SSO COGS						
Total Trading Book COGS						
Total DP&L Generation COGS						
Total Cost of Revenues						
Gross Margin						
Direct O&M Expense						
Indirect O&M Expense						
General Taxes						
Total Operating Expenses						
Operating EBITDA						
Depreciation and Amortization						
Operating Income						
Interest Expense						
Interest (Income) - Other						
Other Expense / (Income)						
Income before taxes, MI & EE						
Current Income Tax Expense						
Deferred Income Tax Expense						
Total Income Taxes						
Net Income						
Preferred Stock Dividend (Accrued)						
Net Income Available to Parent						
Dividend to Parent						
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.

EXHIBIT RJM-17B

DP&L
BALANCE SHEET
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER
2016 – 2022

	2016	2017	2018	2019	2020	2021	2022
ASSETS							
Unrestricted Cash Held at DP&L							
Restricted Cash Held at DP&L							
Accounts Receivable							
Inventory - Fuel and Raw Materials							
Inventory - Spare Parts and Supplies							
General Taxes Applicable to Future Years							
Regulatory Assets - Fixed							
Other Current Assets - Fixed							
Total Current Assets							
Gross Plant in Service							
Construction Work in Progress							
Accumulated Depreciation							
Net PP&E							
Other Non-Current Assets - Fixed							
Loss on Reacquired Debt							
Deferred Financing Costs							
Unrealized Loss on Pension - Fixed							
Other Deferred Assets (Incl. OVEC) - Fixed							
Total Deferred and Non-Current Assets							
TOTAL ASSETS							
LIABILITIES AND SHAREHOLDERS' EQUITY							
Accounts Payable							
Current Portion of Long Term Debt							
Short-Term Debt							
Current Income Taxes Payable							
Other Current Liabilities							
Total Current Liabilities							
Long Term Debt							
Interest Rate Hedges							
Accumulated Deferred Income Taxes							
Unamortized Investment Tax Credit							
Regulatory Liabilities - Fixed							
Pension & Benefit - Fixed							
Other Non-Current Liabilities - Fixed							
Total Deferred Credits & Non-Current Liabilities							
Beginning Equity							
Retained Earnings							
Total Common Shareholder's Equity							
Preferred Stock							
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY							

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

DP&L
CASH FLOWS
WITHOUT DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

	2017	2018	2019	2020	2021	2022
Operating Activities						
Net Income						
Adjustments						
Depreciation and Amortization						
Deferred Income Taxes						
Current Income Taxes						
(Decrease) Increase in Accounts Payable and Regulatory Assets						
Decrease (Increase) in Accounts Receivable						
Inventory						
Accrued Interest						
Capitalized Interest in Interest Expense						
Equity AFUDC in Other Expense / (Income)						
Customer Deposits						
Net General Taxes Payable						
Investment Tax Credits						
Net cash provided by operating activities						
Investing Activities						
Capital expenditures						
Net cash used for investing activities						
Financing Activities						
Issuance of LT Debt						
(Retirement) of LT Debt						
Debt issuance fees						
Issuance/(Retirement) of Short-term Debt						
Preferred Stock Dividends Paid						
Dividend paid to parent						
Net cash provided by financing activities						
Cash and Temporary Cash Investments						
(Decrease) Increase in Cash and Cash Equivalents						

[redacted]

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-18A

DP&L
INCOME STATEMENT
WITH DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

	2017	2018	2019	2020	2021	2022
Total Transmission Revenues	[redacted]					
Total Distribution Revenues						
DMR, DIR-B and Reconciliation Rider						
Total SSO Revenues						
Total Trading Book Revenues						
Total DP&L Generation Revenues						
Total Revenues						
Total Transmission COGS						
Total Distribution COGS						
Total SSO COGS						
Total Trading Book COGS						
Total DP&L Generation COGS						
Total Cost of Revenues						
Gross Margin						
Direct O&M Expense						
Indirect O&M Expense						
General Taxes						
Total Operating Expenses						
Operating EBITDA						
Depreciation and Amortization						
Operating Income						
Interest Expense						
Interest (Income) - Other						
Other Expense / (Income)						
Income before taxes, MI & EE						
Current Income Tax Expense						
Deferred Income Tax Expense						
Total Income Taxes						
Net Income						
Preferred Stock Dividend (Accrued)						
Net Income Available to Parent						
Dividend to Parent						
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. DIR in 2022 collected under DIR-A.
From internal Company projections.

EXHIBIT RJM-18B

DP&L
BALANCE SHEET
WITH DMR, DIR-B AND RECONCILIATION RIDER
2016 – 2022

	2016	2017	2018	2019	2020	2021	2022
ASSETS							
Unrestricted Cash Held at DP&L							
Restricted Cash Held at DP&L							
Accounts Receivable							
Inventory - Fuel and Raw Materials							
Inventory - Spare Parts and Supplies							
General Taxes Applicable to Future Years							
Regulatory Assets - Fixed							
Other Current Assets - Fixed							
Total Current Assets							
Gross Plant in Service							
Construction Work in Progress							
Accumulated Depreciation							
Net PP&E							
Other Non-Current Assets - Fixed							
Loss on Reacquired Debt							
Deferred Financing Costs							
Unrealized Loss on Pension - Fixed							
Other Deferred Assets (Incl. OVEC) - Fixed							
Total Deferred and Non-Current Assets							
TOTAL ASSETS							
LIABILITIES AND SHAREHOLDERS' EQUITY							
Accounts Payable							
Current Portion of Long Term Debt							
Short-Term Debt							
Current Income Taxes Payable							
Other Current Liabilities							
Total Current Liabilities							
Long Term Debt							
Interest Rate Hedges							
Accumulated Deferred Income Taxes							
Unamortized Investment Tax Credit							
Regulatory Liabilities - Fixed							
Pension & Benefit - Fixed							
Other Non-Current Liabilities - Fixed							
Total Deferred Credits & Non-Current Liabilities							
Beginning Equity							
Retained Earnings							
Total Common Shareholder's Equity							
Preferred Stock							
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY							

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. DIR in 2022 collected under DIR-A.
From internal Company projections.

EXHIBIT RJM-18C

DP&L
CASH FLOWS
WITH DMR, DIR-B AND RECONCILIATION RIDER
2017 – 2022

	2017	2018	2019	2020	2021	2022
Operating Activities						
Net Income						
Adjustments						
Depreciation and Amortization						
Deferred Income Taxes						
Current Income Taxes						
(Decrease) Increase in Accounts Payable and Regulatory Assets						
Decrease (Increase) in Accounts Receivable						
Inventory						
Accrued Interest						
Capitalized Interest in Interest Expense						
Equity AFUDC in Other Expense / (Income)						
Customer Deposits						
Net General Taxes Payable						
Investment Tax Credits						
Net cash provided by operating activities						
Investing Activities						
Capital expenditures						
Net cash used for investing activities						
Financing Activities						
Issuance of LT Debt						
(Retirement) of LT Debt						
Debt issuance fees						
Issuance/(Retirement) of Short-term Debt						
Preferred Stock Dividends Paid						
Dividend paid to parent						
Net cash provided by financing activities						
- Cash and Temporary Cash Investments						
(Decrease) Increase in Cash and Cash Equivalents						

[redacted]

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. DIR in 2022 collected under DIR-A.
From internal Company projections.

EXHIBIT RJM-19

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

	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[1]	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:
[1] 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.

EXHIBIT RJM-20

STIPULATION AND RECOMMENDATION
QUANTIFIABLE BENEFITS

Project	Period	One Year	Five Years
Economic Development Grant Fund	Annually for Five Years	$1,000,000	$5,000,000
Additional Economic Development Grant Fund	Over the Term		$2,000,000
City of Dayton: Residential Energy Education	First Year		$50,000
City of Dayton: Property Assessed Clean Energy	First Year		$150,000
City of Dayton: Equipment for Dayton International Airport.	One Time		$50,000
City of Dayton: Economic Development Programs	Annually for Five Years	$200,000	$1,000,000
Edgemont: Consumers At or Below 200% Poverty line	Annually for Five Years	$565,000	$2,825,000
OHA: To Promote Energy Savings Among Members	First Year		$200,000
PWC: Programs Which Assist Low Income, Elderly, and Disabled Customers	First Year		$200,000
Total			$11,475,000

Notes & Sources:

From Stipulation and Recommendation, Public Utilities Commission of Ohio Case Nos. 16-0395-EL-SSO, 16-0396-EL-ATA, 16-0397-EL-AAM, January 30, 2017, at 12-13, 29-30, 33-37.

EXHIBIT RJM-21

MOODY'S RATINGS TEST
AS OF FEBRUARY 16, 2016

		AEP Company, Inc.		FirstEnergy Corp.		Duke Energy Corporation		DPL Inc.	
	Weight	Ratios	Rating	Ratios	Rating	Ratios	Rating	Ratios	Rating
		[A]		[B]		[C]		[D]	
Interest Coverage	18.75%	5.5	A	3.7	Baa	5.2	A	3	Baa
CF / Debt	37.50%	21.0%	Baa	13.9%	Baa	16.5%	Baa	10.9%	Ba
RCF / Debt	25.00%	16.3%	Baa	11.6%	Baa	11.4%	Baa	10.6%	Baa
Debt / Capitalization	18.75%	43.9%	A	54.7%	Baa	44.7%	A	74.3%	B
Structural Subordination Notching					-1		-1		-3
Indicated Rating			Baa1		Baa3		Baa2		B1
Assigned Rating			Baa1		Baa3		Baa1		Ba3
Notch Difference			0		0		1		1

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-22A

DPL INC.
INCOME STATEMENT
2010 – 2016[1]

	2010	2011	2012	2013	2014	2015	2016[1]
Revenues	$1,831	$1,828	$1,668	$1,579	$1,717	$1,613	$692
Cost of revenues							
Fuel	$384	$392	$362	$367	$305	$260	$127
Purchased power	$387	$441	$342	$383	$588	$563	$219
Amortization of intangibles	-	-	$95	-	-	-	-
Total cost of revenues	$771	$845	$799	$750	$892	$822	$346
Gross margin	$1,060	$983	$869	$829	$824	$790	$346
Operating expenses							
Operation and maintenance	$341	$425	$406	$366	$362	$361	$166
Depreciation and amortization	$139	$141	$125	$129	$136	$135	$69
General taxes	$76	$83	$80	$77	$88	$87	$43
Goodwill impairment	-	-	$1,817	$306	-	$317	-
Fixed-asset impairment	-	-	-	$26	$12	-	$236
Other	-	-	$0	$3	($4)	$0	$0
Total operating expenses	$556	$649	$2,429	$907	$593	$900	$513
Operating Income (Loss)	$504	$334	($1,559)	($77)	$231	($110)	($167)
Other income /expense (net)							
Investment income	$2	$1	$3	$1	$1	$0	$0
Interest expense	($71)	($70)	($123)	($124)	($127)	($118)	($52)
Charge for early redemption of debt	-	-	-	($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	$433	$247	($1,682)	($206)	$73	($231)	($222)
Income tax expense	$143	$103	$48	$20	$15	$20	($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-22B

DPL INC.
INCOME STATEMENT
PERCENTAGE OF REVENUE
2010 – 2016[1]

	2010	2011	2012	2013	2014	2015	2016[1]
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	-	-	5.7%	-	-	-	-
Total cost of revenues	42.1%	46.2%	47.9%	47.5%	52.0%	51.0%	50.0%
Gross margin	57.9%	53.8%	52.1%	52.5%	48.0%	49.0%	50.0%
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	-	-	108.9%	19.4%	-	19.7%	-
Fixed-asset impairment	-	-	-	1.7%	0.7%	-	34.0%
Other	-	-	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%	(6.8%)	(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%)	(7.6%)
Charge for early redemption of debt	-	-	-	(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%	5.6%	2.9%	1.3%	0.9%	1.2%	(12.7%)
Net Income (Loss)	15.9%	7.9%	(103.7%)	(14.3%)	3.3%	(15.6%)	(19.4%)

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

EXHIBIT RJM-23

DPL INC.
BALANCE SHEET
2010 – 2016[1]

	2010	2011	2012	2013	2014	2015	2016[1]
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
Current assets							
Cash and cash equivalents	$124	$174	$192	$53	$17	$32	$73
Short-term investments[2]	-	-	-	-	$67	$62	-
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	($2,555)	($8)	($116)	($207)	($318)	($432)	($449)
Construction work in process	$120	$152	$89	$64	$76	$85	$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	$78	$52	$34	$53	$40	$21	$25
Assets held for sale - non-current	-	-	-	-	$35	-	-
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	$97	$89	$103	$142	$158
Accrued interest	$18	$30	$32	$29	$27	$21	$21
Customer security deposits	$19	$16	$15	$14	$14	$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	$48	$62	$52	$96	$87	$80
Unamortized investment tax credit	$10	$4	$3	$3	-	-	-
Other deferred credits	$146	$146	$71	$69	$51	$88	$91
Liabilities held for sale - non-current	-	-	-	-	$0	-	-
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							
Other paid-in capital	-	-	-	$2,237	$2,237	$2,238	$2,238
Accumulated other comprehensive income	($19)	($0)	($4)	$25	$8	$17	$12
Retained Earnings (Deficit)	$1,246	($6)	($1,806)	($2,022)	($2,097)	($2,336)	($2,441)
Total common shareholder's equity	$1,219	$2,231	$427	$240	$148	($81)	($191)
Total Liabilities and Shareholder's Equity	$3,813	$6,136	$4,247	$3,722	$3,578	$3,325	$2,931

EXHIBIT RJM-23

DPL INC.
BALANCE SHEET
2010 – 2016[1]

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.

EXHIBIT RJM-24A

DP&L
INCOME STATEMENT
2010 – 2016[1]

	2010	2011	2012	2013	2014	2015	2016[1]
Revenues	$1,739	$1,678	$1,532	$1,552	$1,668	$1,552	$663
Cost of revenues							
Fuel	$372	$381	$355	$363	$315	$245	$119
Purchased power	$384	$402	$310	$382	$582	$556	$218
Total cost of revenues	$755	$782	$664	$744	$897	$800	$337
Gross margin	$983	$896	$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	$86	$85	$42
Gain on termination of contract	-	-	-	-	-	-	($28)
Fixed asset impairment	-	-	$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)	($39)	($37)	($34)	($31)	($11)
Charge for early redemption of debt	-	-	-	-	-	($5)	-
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	($789)
Income tax expense	$135	$104	$55	$19	$40	$35	($291)
Net income	$278	$193	$91	$84	$115	$106	($498)

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 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-24B

DP&L
INCOME STATEMENT
PERCENTAGE OF REVENUE
2010 – 2016[1]

	2010	2011	2012	2013	2014	2015	2016[1]
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	56.6%	53.4%	56.6%	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%	24.5%
Depreciation and amortization	7.5%	8.0%	9.2%	9.0%	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%	9.0%	11.3%	11.5%	(117.4%)
Other income /expense, net							
Investment income	0.1%	1.0%	0.2%	0.1%	0.1%	0.0%	0.0%
Interest expense	(2.1%)	(2.3%)	(2.6%)	(2.4%)	(2.0%)	(2.0%)	(1.6%)
Charge for early redemption of debt	-	-	-	-	-	(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%	6.6%	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%	6.0%	5.4%	6.9%	6.9%	(75.1%)

Notes & Sources:
[1] Through June 30, 2016.
From Exhibit RJM-24A.

EXHIBIT RJM-25

DP&L
BALANCE SHEET
2010 – 2016[1]

	2010	2011	2012	2013	2014	2015	2016[1]
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
Current assets							
Cash and cash equivalents	$54	$32	$29	$23	$5	$5	$45
Restricted cash	-	$14	$11	$13	$17	$45	$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
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	-	-	-	-	-	$28	-
Total current liabilities	$235	$249	$842	$258	$281	$781	$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 stock, par value of $0.01 per share 250,000,000 shares authorized 41,172,173 shares issued and outstanding	$0	$0	$0	$0	$0	$0	$0
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

EXHIBIT RJM-25

DP&L
BALANCE SHEET
2010 – 2016[1]

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-26A

DPL INC.
QUARTERLY INCOME STATEMENT
Q1 2013 – Q2 2016

	2013				2014				2015				2016	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Revenues	$395	$375	$441	$426	$460	$390	$479	$433	$483	$366	$414	$350	$364	$328
Cost of revenues														
Fuel	$89	$86	$100	$93	$90	$61	$85	$69	$76	$54	$71	$58	$67	$60
Purchased power	$95	$74	$113	$106	$174	$138	$154	$126	$193	$120	$145	$104	$122	$97
Amortization of intangibles	$2	$2	$2	$2	$0	$0	$0	$0	-	-	-	-	-	-
Total cost of revenues	$186	$162	$215	$201	$264	$200	$239	$195	$270	$175	$217	$161	$189	$157
Gross margin	$209	$213	$227	$225	$196	$191	$240	$238	$213	$191	$197	$189	$175	$171
Operating expenses														
Operation and maintenance	$99	$101	$97	$99	$105	$96	$94	$94	$87	$85	$101	$88	$89	$77
Depreciation and amortization	$32	$33	$34	$34	$35	$34	$35	$36	$34	$33	$35	$33	$33	$36
General taxes	$21	$21	$19	$20	$28	$22	$21	$21	$23	$22	$21	$21	$21	$22
Goodwill impairment	-	-	-	$306	$136	-	-	-	-	-	-	$317	-	-
Fixed-asset impairment	-	-	-	$26	$12	-	-	-	-	-	-	-	-	$236
Other	-	-	-	$3	$0	($0)	($0)	($4)	$0	($0)	-	$0	$0	-
Total operating expenses	$152	$155	$151	$488	$315	$151	$150	$147	$144	$140	$157	$459	$143	$370
Operating income	$57	$59	$76	($263)	($119)	$40	$91	$91	$69	$52	$40	($271)	$32	($199)
Other income /expense, net														
Investment income /loss	$0	$2	($1)	$0	$0	-	$0	$0	($0)	$0	$0	$0	($0)	$0
Interest expense	($31)	($30)	($31)	($33)	($31)	($32)	($33)	($31)	($31)	($31)	($29)	($28)	($26)	($26)
Charge for early retirement of debt	-	-	-	($3)	-	-	($0)	($31)	-	-	($2)	-	($3)	-
Other expense	($1)	($4)	-	$2	($1)	($2)	($0)	$1	($1)	($0)	($1)	($0)	($0)	($0)
Total other expense, net	($31)	($32)	($32)	($34)	($31)	($34)	($33)	($60)	($31)	($31)	($31)	($28)	($29)	($26)
Earnings /loss before income taxes	$26	$26	$45	($296)	($150)	$6	$57	$31	$38	$21	$9	($299)	$3	($225)
Income tax expense /benefit	$6	$4	$11	$2	$99	($28)	($41)	($12)	$11	$6	$0	$3	$1	($88)
Net income /loss	$20	$23	$33	($298)	($249)	$34	$98	$42	$27	$15	$9	($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 March 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 September 30, 2014, at 13.
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 12.
2014 Q2 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended June 30, 2015, at 9.
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 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 June 30, 2016 at 10.

EXHIBIT RJM-26B

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

	2013				2014				2015				2016	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
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%	-	-	-	-	-	-
Total cost of revenues	47.1%	43.1%	48.6%	47.1%	57.4%	51.1%	49.9%	45.1%	55.9%	47.7%	52.4%	46.1%	51.9%	47.9%
Gross margin	52.9%	56.9%	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%	9.2%	11.0%
General taxes	5.3%	5.5%	4.4%	4.7%	6.0%	5.5%	4.4%	4.9%	4.8%	6.0%	5.0%	6.1%	5.8%	6.6%
Goodwill impairment	-	-	-	71.9%	29.5%	-	-	-	-	-	-	90.6%	-	-
Fixed-asset impairment	-	-	-	6.1%	2.5%	-	-	-	-	-	-	-	-	71.7%
Other	-	-	-	0.6%	0.1%	(0.1%)	(0.0%)	(0.9%)	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%	9.7%	(77.4%)	8.8%	(60.6%)
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	-	-	-	(0.7%)	-	-	(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%)	(7.9%)	(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	6.6%	7.0%	10.1%	(69.5%)	(32.6%)	1.5%	12.0%	7.0%	7.8%	5.6%	2.1%	(85.4%)	0.8%	(68.6%)
Income tax expense /benefit	1.5%	0.9%	2.6%	0.4%	21.5%	(7.2%)	(8.6%)	(2.7%)	2.3%	1.6%	0.1%	0.8%	0.2%	(26.9%)
Net income /loss	5.0%	6.1%	7.5%	(69.9%)	(54.1%)	8.7%	20.5%	9.7%	5.5%	4.0%	2.1%	(86.2%)	0.6%	(41.7%)

Notes & Sources:
From Exhibit RJM-26A.

EXHIBIT RJM-27A

DP&L
QUARTERLY INCOME STATEMENT
Q1 2013 – Q2 2016

	2013				2014				2015				2016	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Revenues	$377	$352	$413	$410	$432	$366	$455	$416	$461	$352	$389	$350	$349	$314
Cost of revenues														
Fuel	$88	$85	$97	$93	$84	$59	$85	$88	$69	$51	$69	$56	$63	$56
Purchased power	$94	$72	$110	$105	$168	$137	$152	$125	$190	$120	$143	$103	$121	$97
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:														
Operation and maintenance	$91	$92	$88	$92	$95	$85	$86	$87	$84	$84	$95	$88	$86	$76
Depreciation and amortization	$34	$35	$36	$36	$37	$35	$36	$37	$35	$34	$35	$35	$34	$37
General taxes	$20	$19	$18	$19	$26	$21	$20	$21	$23	$21	$20	$21	$21	$21
Fixed Asset Impairment	-	-	-	$86	-	-	-	-	-	-	-	-	-	$857
Gain on termination of contract	-	-	-	-	-	-	-	-	-	-	-	-	($28)	
Other	-	-	-	$3	$0	$1	-	($5)	$0	-	-	-	$0	$0
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	$60	$42	$29	$47	$52	($830)
Other income / (expense), net														
Investment income	$0	$2	$0	$0	$0	$0	$0	$0	($0)	$0	-	$0	($0)	$0
Interest expense	($9)	($10)	($10)	($8)	($8)	($8)	($9)	($8)	($9)	($9)	($7)	($6)	($5)	($5)
Charge for early retirement of debt	($1)	-	-	-	-	-	-	-	-	-	($5)	-	-	-
Other expense	-	($4)	-	$1	($0)	($0)	-	($0)	($0)	($0)	($0)	($0)	($0)	($0)
Total other expense, net	($10)	($12)	($10)	($5)	($8)	($9)	($9)	($8)	($9)	($9)	($12)	($6)	($6)	($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	$6	$13	$17	$15	$9	$1	$10	$12	($304)
Net income	$30	$30	$41	($18)	$9	$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 June 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 September 30, 2014, 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 41.
2014 Q2 data from DPL Inc. and The Dayton Power and Light Company Form 10-Q for the quarterly period ended June 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-27B

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

	2013				2014				2015				2016	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
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	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%	8.9%	9.9%	9.8%	11.7%
General taxes	5.3%	5.5%	4.4%	4.6%	6.1%	5.6%	4.4%	5.0%	4.9%	6.1%	5.2%	6.0%	5.9%	6.7%
Fixed Asset Impairment	-	-	-	21.0%	-	-	-	-	-	-	-	-	-	273.2%
Gain on termination of contract	-	-	-	-	-	-	-	-	-	-	-	-	(7.9%)	
Other	-	-	-	0.6%	0.0%	0.3%	-	(1.2%)	0.1%	-	-	-	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%	(5.6%)	4.9%	7.8%	16.6%	15.3%	13.1%	12.0%	7.3%	13.4%	14.8%	(264.6%)
Other income / (expense), net														
Investment income	0.0%	0.4%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	(0.0%)	0.1%	-	0.0%	(0.0%)	0.1%
Interest expense	(2.5%)	(2.8%)	(2.5%)	(1.8%)	(1.8%)	(2.3%)	(2.1%)	(2.0%)	(1.9%)	(2.6%)	(1.8%)	(1.8%)	(1.5%)	(1.7%)
Charge for early retirement of debt	(0.2%)	-	-	-	-	-	-	-	-	-	(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	10.6%	10.4%	13.1%	(6.9%)	3.1%	5.4%	14.6%	13.3%	11.1%	9.5%	4.2%	11.6%	13.2%	(266.3%)
Income tax expense	2.5%	1.8%	3.2%	(2.6%)	0.9%	1.6%	2.9%	4.0%	3.2%	2.7%	0.2%	2.9%	3.6%	(96.8%)
Net income	8.0%	8.6%	9.9%	(4.3%)	2.2%	3.8%	11.7%	9.3%	7.9%	6.8%	4.0%	8.7%	9.7%	(169.5%)

Notes & Sources:
From Exhibit RJM-27A.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

2/6/2017 4:46:12 PM

in

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

Summary: Testimony Direct Testimony of R. Jeffrey Malinak in Support of Stipulation and Recommendation (Public Version) electronically filed by Mr. Jeffrey S Sharkey on behalf of The Dayton Power and Light Company