## BEFORE THE

PUBLIC UTILITIES COMMISSION OF OHIO

## THE DAYTON POWER AND LIGHT COMPANY

CASE NO. 15-1830-EL-AIR
CASE NO. 15-1831-EL-AAM
CASE NO. 15-1832-EL-ATA

## 2015 DISTRIBUTION BASE RATE CASE

## BOOK III - TESTIMONY

VOLUME 1 OF 4

This is to certify that the imases aponating aro at accurate ard complete reproduction of a case tile docurant delivered in the reguiar cource on whiness. Tacbnician Date Processoci_nOV 302015

Dayton Power and Light Company
DP\&L Case No. 15-1830-EL-AIR
Standard Filing Requirements for Rate Increases
Table of Contents

NOV 302015
DOCKETING DIVISION Public Utilities Commission of Ohio
\(\left.\begin{array}{|c|c|c|c|c|}\hline Book \# \& Vol \# \& OAC 4901-7-01 Reference \& Witness \& Description <br>
\hline 3 \& 1 \& Appendix A, Chapter II, (A)(6) \& Adams \& Revenue analysis schedules, typical bill comparisons, billing determinants, tariff <br>

changes, and load research\end{array}\right]\)| Tax expense, deferred taxes, and gross revenue conversion factor |
| ---: |
| 3 |

## BEFORE THE

# PUBLIC UTILITIES COMMISSION OF OHIO 

# THE DAYTON POWER AND LIGHT COMPANY 

CASE NO. 15-1830-EL-AIR
CASE NO. 15-1831-EL-AAM
CASE NO. 15-1832-EL-ATA

## DIRECT TESTIMONY OF

 ROBERT J. ADAMS- MANAGEMENT POLICIES, PRACTICES, AND ORGANIZATION
- OPERATING INCOME
- RATE BASE
- ALLOCATIONS
$\square$ RATE OF RETURN
- RATES AND TARIFFS
- OTHER


## BEFORE THE

# PUBLIC UTILITIES COMMISSION OF OHIO <br> DIRECT TESTIMONY OF <br> ROBERT J. ADAMS <br> ON BEHALF OF <br> THE DAYTON POWER AND LIGHT COMPANY 

TABLE OF CONTENTS
I. INTRODUCTION ..... 1
II. PURPOSE OF TESTIMONY ..... 1
III. SPONSORED SCHEDULES AND WORKPAPERS ..... 2
IV. CONCLUSION ..... 8

## I. INTRODUCTION

Q. Please state your name and business address.
A. My name is Robert J. Adams. My business address is 1065 Woodman Drive, Dayton, OH 45432.
Q. By whom and in what capacity are you employed?
A. I am employed by The Dayton Power and Light Company ("DP\&L" or "Company") as a Rate Analyst III in the Regulatory Operations department.
Q. What are your responsibilities in your current position?
A. I am responsible for assisting in the development, analysis, revision, and administration of the Company's tariff schedules, rate designs, and policies. I have responsibility for regulatory compliance with the electric service and safety standards, load research and sales forecasting for the department.
Q. Will you describe briefly your educational and business background?
A. Yes. I earned a Bachelor of Science degree in Business Economics from Wright State University in April 2006. I have been employed by DP\&L since 2006. I am currently pursuing a Master's Degree in Social and Applied Economics at Wright State University.

## Q. Have you previously testified before this Commission?

Yes. I presented testimony in support of the Stipulation on behalf of DP\&L before the Commission in Case No. 12-1832-EL-ESS.

## II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding?
A. My testimony will support the schedules that I sponsor which are required by the Standard Filing Requirements in distribution rate proceedings. They are current and proposed tariffs, rationale for tariff changes, tariff class revenue summary, annual test year revenue at proposed vs. current rates, actual test year revenues, results of the Company's load research study, and typical bill comparisons.

## III. SPONSORED SCHEDULES AND WORKPAPERS

Q. What schedules and workpapers in the filing are you sponsoring?
A. I am sponsoring the following schedules included in the Standard Filing Requirements:

- Schedule C-3.25 - Adjust Test Year Revenues
- Schedules E-1, E-2, E-2.1 - Clean Copy of Proposed Tariff Schedules; Current Tariff Schedules; Redlined Copy of Proposed Tariff Schedules
- Schedule E-3 - Rationale for Tariff Changes
- Schedules E-4, E-4.1 - Tariff Class Revenue Summary; Test Year Revenue at Proposed vs. Current Rates
- Schedule E-4.3 - Actual Test Year Revenues; Information for this Schedule is not available at this time and will be supplemented
- Schedule E-5 - Typical Bill Comparison
- Workpaper E-4.1a \& b - Billing Determinant Forecast - Base Distribution Rate Blocks and Billing Determinant Forecast - Customer Bills
Q. Were the schedules and supporting workpapers that you are sponsoring prepared or assembled by you or under your direction or supervision?
A. Yes.


## Q. Please explain Schedule C-3.25.

A. Schedule C-3.25 illustrates the adjustment made to reconcile the adjusted jurisdictional test year revenues in Schedule $\mathrm{C}-3$, to the actual and projected revenues located on Schedule E-4.
Q. Is the adjustment proposed in Schedule C-3.25 reasonable?
A. Yes. The calculation of projected revenues presented in Schedule E-4 more closely follows how the Company collects revenues from customers today. This calculation applies tariff class level billing determinants to tariff class level rates while the adjusted jurisdictional test year revenues are based on an average kilowatt hour rate applied to revenue class total kilowatt hours.
Q. Please explain Schedule E-3.
A. Schedule E-3 contains the narrative rationale for the modifications to the tariff terms and the conditions that the Company has proposed as part of this case. Generally, the proposed amendments were included to clarify the Company's Policies and Procedures.
Q. Please explain the proposed modification to Tariff D10 regarding Redundant Service.
A. DP\&L proposes a tariff revision to clarify its policies and procedures for establishing the Contract Capacity charge used in billing for redundant service. Company Witness Storm explains the justification for this amendment.
> Q. Did the Company propose a test year adjustment to revenue to account for the proposed change regarding Redundant Service?
A. No. The result of the proposed tariff amendment regarding redundant service is unknown and thus, not measurable.
Q. Please explain the proposed amendments to the Company's Street Lighting Service in Tariff D25 and Unmetered Secondary Service in Tariff D19.
A. DP\&L proposes to grandfather the existing customers taking service under the Street Lighting and Unmetered Secondary tariff provisions. All new secondary services will be metered and take service under the Company's Secondary tariff. All new street lighting services will be metered and take service under the Company's Street Lighting tariff. Company Witness Hall explains the justification for these amendments and the provisions required for existing unmetered customers that wish to maintain this service.
Q. Please explain the amendments to the Miscellancous Service Charges provided in Tariff D26.
A. In addition to updating the Electric Meter Testing Charge and the hourly charge for Engineering Studies with the Company's current costs, DP\&L proposes to add a Service Trip Charge and a Collection Charge to Tariff D26. Company Witness Storm provides the justification for the new charges and cost support for all charges in Tariff D26.

## Q. Please explain Schedule E-4.

A. Schedule E-4 is the revenue summary showing distribution revenues at current and proposed rate levels. This schedule is a summary of the sales, current revenue, proposed
revenue by rate schedule as calculated in Schedule E-4.1 and the percentage of revenue that each rate schedule contributes to total distribution service revenue. In addition, Schedule E-4 displays the proposed amount and percentage increase proposed by rate class.

## Q. Please explain Schedule E-4.1.

A. Schedule E-4.1 provides the detail of the revenue calculations by rate class as summarized in Schedule E-4. This schedule also displays the billing determinants associated with the respective rate schedules. The sales revenues for the 12 months ended May 31, 2016 are based upon historical data for the four months ended September 30, 2015. The eight months ended May 31, 2016 are based upon a kilowatt hour sales and customer forecast.

## Q. Please explain Workpaper E-4.1a.

A. Workpaper E-4.1a summarizes the billing determinants for the Company's Base Distribution, Universal Service Fund and Excise Tax rates required for Schedule E-4.1. The billing determinants are comprised of actuals for the period June through September 2015 and a forecast for the period October 2015 through May 2016.
Q. Describe how the forecasted billing determinants were derived for Workpaper E4.1a.
A. The forecasted billing determinants were derived from five years of historical billing data. The historical data was used to develop allocators that represent the percentage of total for each respective $\mathrm{kWh}, \mathrm{kW}$ and kVar rate block. The respective allocators were
then applied to the Company's Long term Forecast Report filed in Case No. 15-663-ELFOR.
Q. Describe how the customer bills were derived for Workpaper E-4.1b.
A. The customer bill totals were derived using 12 months historical data for the period October 2014 through September 2015.
Q. Do you believe the projected values are reasonable?
A. Yes. The values presented in Workpaper E-4.1a and Workpaper E-4.1b are based on historical billing data.
Q. Please explain Schedule E-5.
A. Schedule E-5 is a typical bill comparison that illustrates the effect of the proposed rates on customer bills by tariff class. Schedule E-5 shows the dollar amount and percentage difference for a total bill at various kilowatt hour usage levels.
Q. Can you describe the rate impact for a typical Residential customer as a result of this proceeding?
A. Yes. A typical Residential customer using 1000 kWh per month can expect to experience a bill impact of $\$ 4.07$ per month, or $3.13 \%$ increase.
Q. Can you explain what is represented in column I on Schedule E-5?
A. Yes. The value in column I represents the per bill cost for the Company's current Storm Rider.
Q. Why did you include 2015 Storm Rider as part of Schedule E-5?
A. The Storm Rider is set to expire December $31^{\text {st }}, 2015$. Since this Rider is included as part of the current bill amount in column E , and in order to illustrate the offsetting impact of the Storm Rider's expiration on customer bills, it is necessary to capture the decrease in column I.
Q. Can you explain what is represented in column $J$ Lost Revenue Offset on Schedule E-5?
A. Yes. The value in column $J$ represents the amount of lost revenue eliminated from the Company's Energy Efficiency Rider as part of this rate proceeding.
Q. Why did you include column J Lost Revenue Offset as part of Schedule E-5?
A. Column J was included as part of Schedule E-5 to illustrate the neutral impact of the Company's proposal to move the lost revenue from the Company's Energy Efficiency Rider to the Base Distribution Rate. Without such adjustment, including the lost revenue component only within the Base Distribution Rate would overstate the bill increase.
Q. Will the EER rate be updated as a result of this case?
A. Yes, the Company will file to update its Energy Efficiency Rider to be consistent with the results of this case.
Q. Did the Company perform a load research study in preparation for this filing?
A. Yes. DP\&L hired Christensen Associates Energy Consulting ("CAEC") to complete a load research study for the period November 2013 through October 2014.
Q. How did you utilize the results of the load research study performed in preparation for this filing?

4 Q. Do you believe that the results of the load research study are reasonable?

## 7 IV. CONCLUSION

8 Q. Does this conclude your testimony?
9 A. Yes. It does.

## BEFORE THE

# PUBLIC UTILITIES COMMISSION OF OHIO 

THE DAYTON POWER AND LIGHT COMPANY<br>CASE NO. 15-1830-EL-AIR<br>CASE NO. 15-1831-EL-AAM<br>CASE NO. 15-1832-EL-ATA

DIRECT TESTIMONY
OF STEPHEN A. ALLAMANNO

- 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

STEPHEN A. ALLAMANNO

ON BEHALF OF
THE DAYTON POWER AND LIGHT COMPANY

## TABLE OF CONTENTS

I. INTRODUCTION. ..... 1
II. PURPOSE OF TESTIMONY ..... 2
III. DISCUSSION OF SCHEDULES ..... 3
IV. FEDERAL, STATE, AND LOCAL TAXES ..... 6
V. CONCLUSION ..... 7

## 1 I. INTRODUCTION

Q. Please state your name and business address.
A. My name is Stephen A. Allamanno. My business address is 1 Monument Circle, Indianapolis, IN 46204.
Q. By whom and in what capacity are you employed?
A. I am employed by AES US Services, LLC ("AES Services") as Tax Director for the US Strategic Business Unit ("SBU").
Q. How long have you been in your present position?
A. I assumed my present position on January 2, 2014.
Q. What are your responsibilities in your current position?
A. In my current position, I am responsible for all aspects of federal and state income, property, and sales and use tax for US SBU entities, including The Dayton Power and Light Company ("DP\&L" or the "Company"). I report to both the Chief Financial Officer of the US SBU, as well as the global Vice President - Tax of AES Corporation.
Q. Will you describe briefly your educational and business background?
A. Yes. I am a Certified Public Accountant in the State of Indiana and received a Bachelor of Science degree in Business Administration from The Ohio State University in 1987. I subsequently obtained a Master's Degree in Business Administration ("MBA") from The Ohio State University in 1993. I have spent my entire professional career of approximately 27 years working in the corporate tax field. From January 1988 to October 1998, I worked in the tax department of Cummins Inc. in Columbus, Indiana.

From 1988 to 1991, my responsibilities primarily related to US federal, state, and local tax compliance work. From September 1991 to June 1993, I took a leave of absence from Cummins to obtain my MBA. I returned to Cummins on a full-time basis from July 1993 to October 1998. During this time, I focused on international tax compliance and planning efforts. From October 1998 through March 1999, I served as Director of International Tax for Cardinal Health, Inc. in Dublin, Ohio, holding responsibility for all US tax aspects of the company's non-US operations. I once again returned to Cummins in May 1999 and remained with the company through July 2011. Over this period of time, I served in a variety of roles, handling tax compliance, planning, and provision work for both domestic and international operations. From August 2011 through December 2013, I served as Vice President - US Tax for Technicolor USA, Inc. in Carmel, Indiana. At Technicolor, I was responsible for managing all US tax matters of the company. Since January 2014, I have served as the Tax Director of the US SBU for AES Services.

## II. PURPOSE OF TESTIMONY

## Q. What is the purpose of this testimony?

A. The purpose of my testimony is to present and support the federal, state, and municipal tax information in Schedules A, B, and C for the Company. I am also responsible for the calculation of the Gross Revenue Conversion Factor.

## Q. What Schedules are you sponsoring or co-sponsoring?

A. I am sponsoring the tax portions of the following schedules in this proceeding:

- Schedule A-2: Computation of Gross Revenue Conversion Factor
- Schedule B-6: Other Rate Base Items Summary
- Schedule C-3.1: Adjust Federal and State Income Taxes
- Schedule C-3.8: Eliminate State Excise Tax Rider Revenue and Expense
- Schedule C-3.9: Annualize Property Tax to Reflect Plant in Service on Date Certain
- Schedule C-3.10: Annualize Commercial Activity Tax
- Schedule C-4: Adjusted Jurisdictional Income Taxes
- Schedule C-4.1: Development of Jurisdictional Income Taxes
Q. Were the Schedules or portions of the Schedules that you are sponsoring prepared or assembled by you or under your direction or supervision?
A. Yes.


## III. DISCUSSION OF SCHEDULES

Q. Were these schedules prepared in accordance with the Standard Filing Requirements of Chapter 4901-7 of the Ohio Administrative Code?
A. Yes. The Test Year Schedules are based on four months actual information ended September 30, 2015 and eight months forecast information for the period from October 1, 2015 through May 31, 2016. The forecast process is further explained by Company Witnesses Santacruz and Rabb.
Q. Please describe Schedule A-2.
A. Schedule A-2 presents the Computation of the Gross Revenue Conversion Factor. This schedule includes items of expense that would increase as a result of a change in Company revenues. These expenses include the Ohio Commercial Activity Tax ("CAT") and Federal, State, and Municipal Income Taxes. The factors on this schedule represent the most recent information available.

## Q. Please describe Schedule B-6.

A. Schedule B-6 presents a summary of Other Rate Base Items as of the September 30, 2015 date certain. Tax items included in this schedule are details for Accumulated Deferred Income Taxes and Deferred Investment Tax Credits. All of the amounts on this schedule begin with the total Company per books amounts and then allocate a portion to distribution operations. The development of the allocation percentages applicable to distribution operations is further explained by Company Witnesses Tornquist and Rennix.

## Q. Please describe Schedule C-3.1.

A. Schedule C-3.1 summarizes the adjustments required to current and deferred Federal, State, and Local income tax expense based on the adjustments to operating revenue and expense reflected on Schedules C-3.2 through C-3.25.

## Q. Please describe Schedule C-3.8.

A. Schedule C-3.8 summarizes the elimination of State Excise Tax Rider revenue and expense. Revenues and expenses for the State Excise Tax Rider have been removed from the distribution cost of service because those revenues and expenses are collected and recovered separately through the State Excise Tax Rider approved by the Commission in Case No. 09-1908-EL~ATA. This jurisdictional adjustment results in a decrease in expense of $\$ 49,785,674$. The elimination of State Excise Tax Rider revenue is being sponsored by Company Witness Whitehead.

## Q. Please describe Schedule C-3.9.

A. Schedule C-3.9 summarizes the adjustment required to jurisdictional property tax expense to reflect the annualized liability based on jurisdictional plant-in-service as of September 30, 2015. This calculation is performed using the most recent assessments and estimated rates available.

## Q. Please describe Schedule C-3.10.

A. Schedule C-3.10 summarizes the adjustment required to annualize jurisdictional Ohio CAT to reflect the appropriate amount of CAT for the Test Year. The amount of CAT ultimately included in the adjusted test year is the CAT incurred on jurisdictional revenues, the State Excise Tax Rider, and the Universal Service Fund Rider, as CAT incurred due to these revenues is unrecovered elsewhere.

## Q. Please describe Schedule C-4.

A. Schedule C-4 presents the calculation of the Company's adjusted jurisdictional income taxes for the test year ending May 31, 2016. The schedule starts with the unadjusted jurisdictional pre-tax income and Schedule $M$ book-tax difference amounts from Schedule C-4.1. The Schedule C-4.1 starting-point balances are then adjusted to reflect the tax effect of the ratemaking adjustments supported by various Company witnesses on both pre-tax book income and the related Schedule $M$ adjustments that must be made for income tax purposes. Adjustments are then made to incorporate increased revenues at proposed rates in order to determine the pro forma jurisdictional income tax expense.

## Q. Please describe Schedule C-4.1.

A. Schedule C-4.1 represents the calculation of the Company's jurisdictional income taxes for the test year ending May 31, 2016. The schedule starts with the results for the entire

Company's operational activity and then allocates income, expense, and Schedule M items to the Company's Ohio Retail jurisdictional operations.

## IV. FEDERAL, STATE, AND LOCAL TAXES

Q. Please describe the methodology used to develop the Federal, State, and Municipal Income Tax Expense for the forecasted period from October 1, 2015 through May 31, 2016 as included in Schedules C-4 and C-4.1.
A. The Company's Federal, State, and Municipal Income Tax expense for the forecasted period from October 1, 2015 through May 31, 2016 is based on Company Witnesses Santacruz's and Rabb's components of pre-tax book income and expense, as well as the forecast of Schedule $M$ items that would affect the computation of current and deferred income tax expense for the forecasted period. The tax expense calculation also includes the reversals of deferred tax items and amortization of deferred investment tax credits from prior years. This calculation utilized the most recent available Federal, State and Municipal tax rates and apportionment factors.
Q. Please describe the income tax pro forma adjustments that have been included in this filing.
A. Per book current income tax amounts have been adjusted to reflect the taxable income effect of ratemaking adjustments supported by various Company witnesses that affect pre-tax income and any related Schedule M adjustments. Deferred income tax expense amounts have similarly been adjusted.
Q. Are the tax results of the schedules described above reasonable?
A. Yes. These schedules incorporate test year and date certain data, as well as up-to-date tax information, to accurately calculate the appropriate levels of Taxes Other Than Income Taxes as well as Income Taxes that should be reflected on the pro forma jurisdictional test year. Including such tax calculations are imperative to allow the Company the opportunity to earn a fair rate of return on its electric distribution operations.

## V. CONCLUSION

## Q. Does this conclude your direct testimony?

A. Yes.

## BEFORE THE

# PUBLIC UTILITIES COMMISSION OF OHIO 

# THE DAYTON POWER AND LIGHT COMPANY 

CASE NO. 15-1830-EL-AIR
CASE NO. 15-1831-EL-AAM
CASE NO. 15-1832-EL-ATA

## DIRECT TESTIMONY

OF BARRY J. BENTLEY

[^0]
# BEFORE THE <br> PUBLIC UTILITIES COMMISSION OF OHIO <br> DIRECT TESTIMONY OF <br> BARRY J. BENTLEY <br> ON BEHALF OF <br> THE DAYTON POWER AND LIGHT COMPANY 

## TABLE OF CONTENTS

I. INTRODUCTION ..... 1
II. PURPOSE OF TESTIMONY ..... 3
III. DP\&L OVERVIEW. ..... 3
IV. RELIABILITY INDICES ..... 4
V. DISTRIBUTION SYSTEM, DESIGN, CONSTRUCTION, OPERATION, AND MAINTENANCE ..... 8
VI. CONCLUSION ..... 13

## I. INTRODUCTION

## Q. What is your name and business address?

A. My name is Barry J. Bentley. My business address is 1900 Dryden Road, Dayton, Ohio.

## Q. By whom are you employed and in what capacity?

A. I am employed by AES Corporation ("AES") as Vice President, Customer Operations for Dayton Power \& Light Company ("DP\&L" or "The Company") and Senior Vice President, Customer Operations for Indianapolis Power \& Light Company ("IPL").

## Q. What is your work experience?

A. Including my Cooperative Engineering assignments while attending Purdue University, I have been employed at IPL for nearly 30 years. My experience includes positions of increasing responsibility in the areas of power generation, transmission and distribution, customer service, corporate venture capital, fuel supply, and energy dispatching and marketing. I began my career with IPL in 1984 as a Cooperative Engineering student while attending Purdue University. In 1988, I became a full-time employee, working as an engineer in Power Production. In 1990, I became Supervisor, Instrument Electrical at the H. T. Pritchard Generation Station. In 1992, I moved to Supervisor, Maintenance for all electrical and mechanical maintenance at the Pritchard Plant. Between 1993 and 1998, I was Supervisor and then Director, System Operation, responsible for the operation of the transmission system and dispatching of generation assets. In 1999, I became Manager, Bulk Power, which included responsibility and oversight of the planning, engineering, operations, and maintenance for all IPL transmission and substation assets. In 2000, I was promoted to Principal in IPL's Corporate Venturing

Group. In 2002. I was promoted to the Director, Demand Coordination, responsible for strategic account management for IPL's top 300 retail customers. In 2003, I transitioned to the Director, Supply Coordination and later to the Vice President, Fuel and Energy supply, responsible for energy dispatching, wholesale sales, and fuel procurement for IPL's generation fleet. In 2008, I transitioned from generation supply to the Vice President, Power Delivery, in IPL's electric delivery organization. In 2014, I was appointed to my current position of AES United States Strategic Business Unit Vice President, Customer Operations leading both groups at IPL and DP\&L.

## Q. What is your education background and professional experience?

A. I hold a Bachelor of Science degree in Electrical Engineering from Purdue University. I have attended several management courses from the University of Michigan, the University of Indianapolis and the University of Virginia Darden School of Business. I am a former member of the East Central Area Reliability Council ("ECAR") Opexation and Compliance Panels.

## ). What are your responsibilities as Vice President, Customer Operations for AES?

I am responsible for the planning, construction, operation and maintenance of the transmission and distribution systems and customer service at both DP\&L and IPL.

## Have you previously testified in regulatory proceedings?

Yes, I testified on behalf of the Joint Petitioners in Indiana in Cause No. 42685 , involving their request to recover their costs associated with taking transmission service under the Midwest Independent Transmission System Operator, Inc.'s ("MISO" or "Midwest ISO") pen Access Transmission and Energy Markets Tariff ("TEMT"), and on behalf of the

Joint Petitioners in Cause No. 42962 involving Day Ahead and Real Time Revenue Sufficiency Guarantee credits and charges. I also testified in Cause No. 43414 regarding IPL's Purchased Power Benchmark proceeding and in Cause No. 43623 regarding IPL's pending demand-side management proceeding. I also have testified in numerous Fuel Adjustment Clause ("FAC") proceedings in Indiana.

## II. PURPOSE OF TESTIMONY

## Q. What is the purpose of this testimony?

A. The purpose of my testimony is to discuss DP\&L's distribution reliability performance over the past five years, discuss the programs and practices that continue to drive the favorable performance both during storms and normal weather days, and additional challenges that could impact future reliability performance.

## III. DP\&L OVERVIEW

## Q. Please describe the DP\&L Service Territory?

A. DP\&L's distribution system is approximately 6,000 square miles serving 24 counties in west central Ohio. DP\&L has over 500,000 distribution customers being served from voltages of 12 KV and 4 KV . DP\&L operates approximately 10,500 miles of distribution overhead facilities and 3,600 miles of underground facilities served from approximately 150 substations.
Q. Please describe how the transmission and distribution system is designed, constructed, maintained, and operated?
A. The transmission system is designed to deliver bulk electricity safely and reliably from generating stations to distribution substations and to interconnection substations between utilities. DP\&L transmission voltages are $345 \mathrm{KV}, 138 \mathrm{KV}, 69 \mathrm{KV}$, and sub-transmission at 33 KV . The transmission line construction is generally steel towers for the 345 KV system and a combination of steel structures and wood poles for the 138 KV transmission lines. The substations include power transformers of varying sizes and capacities, switches, circuit breakers, system protection, and control equipment. The system is operated under the requirements of ReliabilityFirst which is the Regional Reliability Organization in the Midwest and under reliability standards from the North American Electric Reliability Corporation ("NERC"). In addition, the transmission system is under the operating control of the PJM regional transmission organization under the approval of the Federal Energy Regulatory Commission ("FERC").

The electric distribution system is designed to receive bulk power at the transmission voltages above, step the voltage down to 12 KV , and 4 KV , and deliver to the customer premises to be largely stepped down to secondary voltages (e.g. 277/480 Volts, 120/208 Volts and $120 / 240$ Volts). Consistent with the transmission system, the distribution system consists of substation power transformers of varying sizes and capacities, switches, circuit breakers, wood and metal poles, overhead conductors, underground cables, capacitors, relay protection devices, and communication and control devices. The design and construction of the distribution system is governed by the National Electric Safety Code ("NESC").

## IV. RELIABILITY INDICES

Q. Please provide and discuss the Company's Reliability indices.
A. Consistent with good utility practice, DP\&L measures service reliability by the industry accepted metrics of System Average Interruption Frequency Index ("SAIFT"), Customer Average Interruption Duration Index ("CAIDI") and System Average Interruption Duration Index ("SAIDI").

DP\&L calculates and reports to the Commission SAIFI and CAIDI excluding transmission events and Major Event Days ("MED") consistent with O.A.C. 4901:1-1001, Section 4.5 of Standard 1366-2003 as adopted in the Institute of Electrical and Electronics ("IEEE") Guide for Electric Power Distribution Reliability Indices. MED are major customer interruption events (e.g., major storms) and the methodology for determining a major event is provided in the IEEE Standard 1366-2003. Calculating reliability indices without transmission interruptions and major events provides the reliability performance for DP\&L's distribution system that can be consistently benchmarked relative to the other investor-owned utilities in the state of Ohio.

SAIFI represents the average number of interruptions per customers. SAIFI is not measured in minutes like the other reliability metrics and is derived by taking the total number of customer interruptions divided by the total number of customers served.

CAIDI is the Customer Average Interruption Duration Index and represents the average time measured in minutes to restore service per interrupted customer and is derived by summing the customer minutes of interruption divided by the total number of customer interruptions.

SAIDI is the System Average Interruption Duration Index and represents the average time measured in minutes a customer is interrupted and is derived by summing the total
minutes of customer interruption divided by the total number of customers served. Also, SAIDI is more quickly derived by multiplying CAIDI times SAIFI.

The following Chart provides DP\&L's distribution SAIFI, CAIDI, and SAIDI performance over the past five years:

Chart Number 01
DP\&L Reliability Indices

| Year <br> End | SAIFI | CAIDI | SAIDI |
| :--- | :--- | :--- | :--- |
| $\mathbf{2 0 1 0}$ | 0.83 | 116.09 | 96.41 |
| $\mathbf{2 0 1 1}$ | 0.81 | 120.61 | 98.18 |
| $\mathbf{2 0 1 2}$ | 0.80 | 120.15 | 95.63 |
| $\mathbf{2 0 1 3}$ | 0.70 | 110.51 | 77.13 |
| $\mathbf{2 0 1 4}$ | 0.82 | 121.86 | 99.66 |

The following graph shows the Commission's reliability indices for the investor-owned utilities in the state of Ohio. The graph shows the past three years and a column that represents the three-year average.

Graph Number 01
Ohio Investor Owned PUCO Reliability Indices


# Barry J. Bentley 

Page 7 of 13
Q. How does DP\&L measure customer satisfaction and what are the results of the most recent surveys?
A. DP\&L measures customer satisfaction through multiple channels to ensure that we understand what our customers are looking for in their electric provider. Metrix Matrix is a third party vendor that surveys approximately 400 of our customers on a quarterly basis. The customers rate DP\&L on several different areas including price, reliability, company image, and customer care. For 2014, our results with Metrix Matrix indicate an $88 \%$ customer satisfaction rate. Metrix Matrix is able to provide DP\&L an impartial view from our customers' perspective. DP\&L also uses JD Power to measure customer satisfaction as compared to other similarly-sized utilities. JD Power measures similar categories as Metrix Matrix while providing additional details in each of those categories. For 2014, JD Power results indicate that we are in the third quartile compared to other Midwest mid-size utilities.

Along with measuring customer satisfaction, DP\&L also benchmarks the performance of different areas in the company against other utilities to uncover areas of opportunity as well as best practices. This benchmarking includes DataSource and Benchmark Portal for Customer Service.
Q. As customer sensitivity to reliability related service interruptions increases, what are some of the major challenges DP\&L will face in meeting its customers' future expectations for an enhanced level of service?
A. Vegetation causes nearly $40 \%$ of all customer minutes of interruption and presents a continuing challenge. With the infestation of the Emerald Ash Borer, we expect a significant number of ash trees that reside outside of the vegetation trim zone to die in the

Barry J. Bentley
Page 8 of 13
future, leading to more distribution overhead electric infrastructure potentially being damaged by the falling trees.

## V. DISTRIBUTION SYSTEM, DESIGN, CONSTRUCTION, OPERATION, AND MAINTENANCE

Q. What is DP\&L's approach to designing, constructing, operating and maintaining,
its distribution facilities?
A. DP\&L's distribution facilities are designed, constructed, operated and maintained consistently with good utility practice, with the objective of continuing to provide safe, reliable and affordably priced electric distribution service to our customers.
Q. Please describe some of the factors that the Company must consider in attempting to achieve this objective of providing customers with safe, reliable and reasonably priced electric service.
A. DP\&L must provide safe and reliable electrical distribution service to customers while balancing the investment and expenses to maintain affordability. The Company administers its planning and operating criteria consistently with good utility practice. In addition, DP\&L must adhere to requirements mandated by the PUCO, other regulatory entities and/or reliability councils, and any governmentally-mandated projects or requirements.
Q. How does DP\&L balance all of these factors?
A. DP\&L's planning and operations personnel perform short and long term electric system modeling to determine reliability concerns due to equipment overloads, voltage issues, transient stability issues, etc. That information is provided to our Asset Management

# Barry J. Bentley 

Page 9 of 13
personnel to determine the annual capital expenditures necessary to continue providing safe, reliable and affordable electrical service to customers.

## Q. How does DP\&L maintain and improve reliability within its distribution system?

A. DP\&L has adopted a results-based approach to the development and evaluation of maintenance and inspection programs. All maintenance, inspection and capital planning practices contribute to overall system performance and are regularly reviewed. DP\&L's maintenance programs consist of performing maintenance on each of the following:

- Poles and Towers - DP\&L performs inspections on poles with an actual or estimated vintage greater than 25 years or those poles that have visible defects, to determine structural soundness and need for maintenance, repair, reinforcement or replacement if applicable.
- Circuit and Line Inspections - The Overhead Distribution Line Patrol ("DLP") examines the condition of the hardware, conductor, poles, clearances, and tree conditions. This comprehensive inspection includes the mainline overhead distribution facilities from the substation including all branch lines to the service drop. DP\&L inspects $20 \%$ of its overhead circuits on an annual basis.
- Primary and Secondary Enclosures - The Underground Residential Distribution ("URD") inspection program is a comprehensive program to verify the physical and visual condition of URD devices and to correct any safety and reliability issues. These inspections are performed by map grid and $20 \%$ of all grids are inspected yearly, with the entire system being inspected once every five years.
- Line Reclosers - DP\&L visually inspects the physical condition, records counter readings, ambient temperature and load on its reclosers annually.

Barry J. Bentley

Page 10 of 13

- Line Capacitors - Capacitors are inspected annually, which includes inspection of the cutouts, switches and controls.
- Distribution Right of Way (Vegetation Management) - The goal of the vegetation management program is to maintain the reliability of the electric distribution system by preventing outages and equipment damage due to trees or other vegetation contacting the lines. Line clearance is performed on overhead primary and secondary distribution conductors using American National Standards Institute ("ANSI") standards as a basis for clearance from the substation to the customer service drop with no circuit having a last trim date greater than 5 calendar years.
- Substation - The goal of this program is to ensure continued reliable operation and to extend the operating life of substation class transformers. DP\&L performs an external visual inspection monthly, checking for oil leaks, ground faults, failed cooling fans, high temperature, high or low pressure, clogged or damaged radiator grills, and damaged gauges. We also perform thermographic imaging on a yearly basis, checking for hot spots due to loose connections. A dielectric oil breakdown test is performed every five years to test the dielectric strength of the oil and replace or filter oil if needed. Routine maintenance is performed on load tap changers every 5 years. Doble testing is performed every 5 years to check for insulation degradation. An operational test is performed on circuit breakers as needed to ensure breakers are operated at least once per year to ensure proper operation. A visual inspection is also completed annually to check for oil leaks, cracked or damaged bushings. Substation switches are inspected annually to check for hot spots. Relays are calibrated and trip tested by voltage level to ensure reliable operation of relays.
- Air Break Switches - A visual inspection of air break switches is performed annually, checking for handle and locking mechanism, ground connection, insulators, and lightning arresters.
- Voltage Regulators - Voltage regulators are inspected biennially and include a control check, visual check of the physical condition and status of indicator readings.

In addition to its maintenance programs, DP\&L monitors reliability daily and addresses concerns through its Overhead Reliability Program ("ORP") and Reliability Action Program ("RAP"). The ORP addresses concerns on DP\&L's $8 \%$ worst performing circuits and the RAP addresses concerns on branch lines.
Q. Briefly describe DP\&L's Distribution Asset Management programs?
A. To summarize, the DP\&L Asset Management Strategy is the methodology and practices for providing a systematic representation, governance and management framework that will enable DP\&L to:

- Understand what system capacity and reliability is required, both now and in the future, and what issues drive these requirements;
- Have robust and transparent processes in place for managing all phases of the electric system and asset life cycles;
- Adequately consider the classes of asset risk that DP\&L's system faces, and to ensure that DP\&L has systematic processes in place to mitigate these identified risks;
- Have an ever-increasing knowledge of our assets, the health of our assets (locations, ages, conditions, etc.) and projected future performance;
- Make all decisions within systematic frameworks and guidelines.

The Asset Management Strategy is built upon systematic data-driven decisions for all dimensions of asset maintenance, operation, risk, and investment. This strategy drives a range of initiatives that ensure consistent collection, organization and communication of asset data. The data is used to measure and monitor the performance and health of each asset, which is in turn used to identify and prioritize system and asset risks to optimize investment decisions.

The process is a dynamic one, recognizing that new information may impact the achievability of the plan and therefore change priorities. This means that there is a continuous process of dialogue in which the Asset Management team interacts with other internal stakeholders on a regular basis, consistent with good management practice (e.g. managerial approval, meetings, communications, etc.)

Key internal stakeholders are the delivery organizations for our asset management processes and procedures (e.g. Lines and Substations). They are continuously involved in assessing the profile of future risks and investment levels in the system to ensure that the plan can be implemented within the existing resource and delivery constraints. Each year, DP\&L develops a comprehensive set of Asset Management related objectives. These objectives contain a broad scope of activities and achievements planned for the coming year.

## VI. CONCLUSION

Q. Does that conclude your direct testimony?
A. Yes.

## BEFORE THE

# PUBLIC UTILITIES COMMISSION OF OHIO 

## THE DAYTON POWER AND LIGHT COMPANY

CASE NO. 15-1830-EL-AIR

CASE NO. 15-1831-EL-AAM
CASE NO. 15-1832-EL-ATA

DIRECT TESTIMONY OF BRUCE R. CHAPMAN

[^1]BEFORE THE

# PUBLIC UTILITIES COMMISSION OF OHIO 

## DIRECT TESTIMONY OF

BRUCE R. CHAPMAN CHRISTENSEN ASSOCIATES ENERGY CONSULTING, LLC

ON BEHALF OF THE DAYTON POWER AND LIGHT COMPANY

## TABLE OF CONTENTS

I. INTRODUCTION. ..... 1
II. PURPOSE OF TESTIMONY ..... 2
III. THE NATURE AND PURPOSE OF A COS STUDY ..... 3
IV. CLASSIFICATION OF DISTRIBUTION COSTS AT DP\&L ..... 8
V. ALLOCATION OF DISTRIBUTION COSTS AT DP\&L ..... 10
VI. COST-OF-SERVICE RESULTS ..... 12
VII. CONCLUSIONS ..... 17

## I. INTRODUCTION

Q. Would you please state your name and business address?
A. My name is Bruce R. Chapman. My business address is 800 University Bay Drive, Suite 400; Madison, Wisconsin 53705. I am a Vice President with Christensen Associates Energy Consulting, LLC ("CA Energy Consulting").
Q. Would you please describe your educational background and employment experience?
A. I received a Bachelor of Arts degree from the University of Pittsburgh in 1976 and hold a Master of Arts (in fact, a Ph.D., all but dissertation) in Economics from the University of Wisconsin. I majored in Industrial Organization. I have been employed by three economic consulting firms. Since 1986, I have worked at Christensen Associates Energy Consulting or its parent, Laurits R. Christensen Associates, Inc., in positions of increasing responsibility. The focus of my work has been regulated utility costing and pricing, including both traditional and innovative rate design, embedded and marginal costing. I have prepared, analyzed, and advised for nearly a decade on both cost of service ("COS") studies and COS methodology. I have supervised the design of our firm's most recent COS model and an associated rate design model, and I have applied our models in the service of clients. Additionally, I have undertaken COS studies making use of our clients' in-house models, and have provided advice on COS issues on numerous occasions. Recent projects have included evaluation of various utilities' COS methodologies. I testified recently in regulatory hearings on cost-of-service methodology issues before the Nova Scotia Utility and Review Board.

## II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?
A. The purpose of my testimony is to present and explain the COS study filed by The Dayton Power and Light Company ("DP\&L" or "Company") in this proceeding.

## Q. Would you please describe your role in preparing the COS Study?

A. The COS Study was conducted under my supervision and control. The COS model design originated with DP\&L. I reviewed their model for reasonableness. DP\&L provided the financial data necessary to populate the model, as well as the original classification information and allocator designations. DP\&L also provided fixed cost breakdowns by service level and metering information detail that supported the development of certain allocators. CA Energy Consulting advised DP\&L with respect to the selection of allocators and the development of classification calculations. Subsequently we reviewed all files and computations that develop classification shares and allocators. Additionally, we tested the functioning of the model under various alternative assumptions, and generally audited its performance. I supervised this activity. My conclusion is that the model records the utility's full costs and reliably computes costs allocated to the utility's various classes. As a result of my work with DP\&L in preparing the study and its underlying model I adopt and sponsor the model and support the study results.
Q. Are you supporting any schedules with your testimony?
A. Yes. I am supporting the following schedules, which represent DP\&L's COS study:

- Schedules E-3.2, E-3.2a, E-3.2b, and E-3.2c.


## Q. Would you please summarize your testimony?

A. Yes. In Section III, I provide an overview of the reasons for conducting a COS study, the steps involved in a study, and the ways in which the study is used. Sections IV and V describe how the financial costs of the utility are associated with the classes deemed responsible for those costs. These sections include a discussion of DP\&L's approach to the various steps involved in developing the cost of service. In Section VI, I review the results of the study, and Section VII provides conclusions.

## III. THE NATURE AND PURPOSE OF A COS STUDY

## Q. Please explain the basis of and need for a cost of service study.

A. An electric COS study separates a utility's total electric investments, revenues, and expenses into the jurisdictions that a utility serves, and then among the rate classes or groups within each jurisdiction. The primary goal is to identify the costs incurred by the utility in providing service to each group of customers. A study is necessary to enable a regulatory commission to review a utility's jurisdictional earnings and to evaluate the contribution made by rates within its jurisdiction. DP\&L, like other electric utilities, maintains its books and records in accordance with the Uniform System of Accounts as directed by the Federal Energy Regulatory Commission ("FERC") and the Public Utilities Commission of Ohio ("PUCO" or "Commission"). Although this system of accounting contains company-wide information, it does not separate the company's investments, revenues, and expenses by jurisdiction or by rate classes or groups within the jurisdiction. A COS study performs this role. A thorough, well-performed COS study can be a useful (and often the primary) tool for determining the adequacy of current rates. For those rates that the study reveals to be inadequate at current tariff levels, the
study can be an appropriate tool for determining what rate changes should be made to achieve revenue adequacy. Ultimately, a COS study establishes cost responsibility by tariff class that enables the utility to determine just and reasonable rates. The COS study filed in this proceeding accomplishes this objective of separating costs by rate class groupings.

## Q. How are COS studies used in the regulatory process?

A. A COS study is often used as a tool to determine earnings and cost recovery by regulatory jurisdiction (if the utility has multiple jurisdictions) and by customer group/rate class. The regulatory body can use these COS results to ascertain the utility's overall revenue requirement as well as to judge the adequacy of rates within the jurisdiction. The National Association of Regulatory Utility Commissioners ("NARUC") identifies the COS study among the basic tools of ratemaking, and it is used to attribute costs to different categories of customers based on how those customers cause costs to be incurred.

## Q. Once the COS study was completed, was it used by DP\&L in this rate filing?

A. Yes. DP\&L examined the results of the study to determine how well each rate class's revenues were covering costs. Company Witness Parke then used the data to develop the proposed target rate of return and rate design for each tariff class.

## Q. In preparing a COS study, is there a guiding principle that a utility should follow?

A. Yes. The overall objective of a COS study is to assign or allocate costs fairly and equitably to all customers. This objective is accomplished when the resulting study reflects the principle of "cost causation." This principle states that those customers who
caused a particular cost to be incurred by the company in providing service to them should be responsible for those costs.

When certain costs are readily identified with a particular customer group, the assignment of those costs to that group reflects cost causation, which is fair and equitable to all customers. However, it must be recognized that most parts of an electric system are planned, designed, constructed, operated, and maintained to serve all customers. These costs are referred to as "joint" or "common" costs. Joint or common costs must be allocated to customer groups based on the cost-causative nature, or "drivers" of the costs incurred, and the aggregate requirements and service characteristics of the customers that caused the costs to be incurred. By adhering to this fundamental and essential principle of cost causation, the results of the COS study will be fair and equitable to all customers.

## Q. What are the major "drivers" that cause costs to be incurred?

A. Costs are normally influenced by three factors that are observable for most customers. Cost causation can be viewed as: (1) demand-related - costs incurred to serve peak needs for electricity (kW); (2) energy-related - costs that vary with energy consumption (kWh); and (3) customer-related - costs that vary with the number of customers or record the presence of a customer. Utilities classify each of their assets and expenses according to their cost-causative factors and then allocate each set of classified assets and expenses. Each of these three drivers has its own separate and appropriate allocators to spread respective costs to rate groups within the utility.

## Q. Would you please summarize the steps to perform a COS study?

A. Typically, a COS study consists of five major steps. These steps are: (1) functionalization of the financial accounting data, (2) levelization of the data, (3) cost-causative classification of the financial costs, (4) assignment of certain costs and revenues, and (5) allocation of common costs. After these steps are completed, by comparing revenues with cost to serve, by tariff class, one can observe how well customer groupings cover their cost to serve.

## Q. What is the first step, functionalization?

A. Functionalization is the subdivision of a utility's assets and costs into the main functions required to provide electricity to customers. DP\&L follows the functional categories contained in the FERC Uniform System of Accounts, namely production, transmission, distribution, customer services (customer accounting, customer assistance, sales), and administrative and general.

## Q. Does your analysis address all of those functions?

A. Production and transmission expenses are naturally incurred in the service of customers, but these expenses are excluded from the COS study, since they are not the subject of this proceeding. The other functions are included.

## Q. Please describe the second step, levelization.

A. Levelization is the process of disaggregating costs by the customers' voltage service levels. The service level designations are a means of identifying and associating investment and expenses with customers and their loads at established points of service. In general, the lower the voltage level of service required by the customer, the greater the cost of providing service, because additional equipment is necessary to deliver lower
voltage service and additional load losses are incurred when stepping down the load to lower voltages.

## Q. At what voltage service levels are DP\&L's customers served?

A. DP\&L has customers at secondary and primary distribution levels, at the substation level, in which customers are connected directly to the primary voltage side of a substation, and at the high voltage or transmission level of service. Representative voltage service levels for these groups of customers are: 1) secondary - less than 2.4 kV ; 2) primary -2.4 kV or higher; 3) substation -2.4 kV or higher, with service taken directly from the substation; and 4) transmission -69 kV or higher. ${ }^{1}$

## Q. What is the next step, classification?

A. Classification segregates costs into the three primary "cost-causative" characteristics of investment and expenses described above. Each type of cost varies in response to changes
 customers.
Q. What is included in the assignment step?
A. As noted above, if costs are the responsibility of certain customers or groups of customers, these costs can be assigned directly to the customers responsible for them.

## Q. What is the final step of allocation?

A. Allocation is the process of dividing common costs (costs that cannot be assigned to specific customers) among rate groups. This process requires the development of

[^2]allocators. An allocator provides the share of each type of costs for which each rate group bears responsibility.

## Q. Which jurisdictional tariff classes are used in this COS study?

A. The jurisdictional classes used in this COS study are Residential, Secondary, Private Outdoor Lighting, Street Lighting, Primary, Primary Substation, and High Voltage. The first four classes are all served at the secondary voltage level.

## IV. CLASSIFICATION OF DISTRIBUTION COSTS AT DP\&L

## Q. How do utilities typically classify distribution costs?

A. Utilities usually divide distribution costs between demand-related and customer-related categories. In many cases, classification is not an issue, since the cost can be related exclusively to peak demand or number of customers. For example, substation costs are generally regarded as demand-related, while meter costs are viewed as customer-related. However, in other cases, distribution classification is complicated by recognition that both demand and customer numbers play a role in causing costs. In particular, assets under FERC account numbers 364-368 must usually be studied in order to classify costs successfully. Those accounts cover poles, towers, and fixtures (364); overhead conductors and devices (365); underground conduit (366); underground conductors and devices (367); and line transformers (368).

## Q. What methods are used to classify these accounts?

A. Two methods are typically used: "minimum-size" and "minimum-intercept" (or "zerointercept"). The former classifies the costs of a hypothetical minimum-size version of the utility's distribution system capable of connecting to all customers as customer-related,
then classifies all residual costs as demand-related. The analyst examines the assets of each account, identifying the smallest type of pole, conductor, etc., valuing this smallest unit and multiplying by the total number of units of that type. Comparison with the value of all the assets in the account yields the result.

The "minimum-intercept" method calculates the costs associated with zero loads by valuing the costs of all assets and conducting regression analysis of cost on currentcarrying capacity or demand rating to establish the cost of a zero-load system.

Each approach has its merits. The minimum-size approach is economical because the data are available and the computations are straightforward. The minimum-intercept approach makes use of cost information on assets of all sizes in each class and computes a zero-load estimate, as opposed to a minimum-load presumption generated by the minimum-size method. Both methods are acceptable to the industry, as may be seen by referencing the NARUC Electric Utility Cost Allocation Manual. ${ }^{2}$

## Q. What method does DP\&L use?

A. DP\&L uses the minimum-size method. Its approach enumerates system assets and values them at current replacement cost to determine the customer cost. DP\&L then analyzes each account's costs by vintage year, using the 2015 Handy-Whitman Index to determine the total account investment in today's dollars. The customer cost is divided into this adjusted total to determine the customer and demand shares. The results of its research are in the table below. ${ }^{3}$

[^3]| FERC A/C | Account Name | Customer | Demand |
| :---: | :--- | :---: | :---: |
| 364 | Poles - Primary | $21.50 \%$ | $78.50 \%$ |
|  | Poles - Secondary | $21.70 \%$ | $78.30 \%$ |
| 365 | Overhead Conductors - Primary | $11.47 \%$ | $88.53 \%$ |
|  | Overhead Conductors - Secondary | $22.60 \%$ | $77.40 \%$ |
| 367 | Underground Conductors - Primary | $5.76 \%$ | $94.24 \%$ |
|  | Underground Conductors - Secondary | $6.69 \%$ | $93.31 \%$ |
| 368 | Transformers - Primary | $0.37 \%$ | $99.63 \%$ |
|  | Transformers - Secondary | $19.49 \%$ | $80.51 \%$ |

Q. Have you reviewed the information provided by DP\&L on its minimum size method?
A. Yes. I reviewed each account's asset enumeration and the computations that were used to derive the classification results. Based on my experience, the computations are reasonable, and should be accepted by the Commission.

## V. ALLOCATION OF DISTRIBUTION COSTS AT DP\&L

Q. How do utilities typically allocate demand-related distribution costs?
A. Utilities allocate demand-related distribution costs primarily by reference to class shares of non-coincident peak ("NCP") demand. Load research reveals each class's single maximum level of consumption over the course of a year. The 1NCP allocator is simply each class's share of the sum of these values. (The "1" denotes the single annual maximum value.) Investment in distribution expenses is presumed to occur in response to the increase in peak demands of subgroups of customers on individual feeder lines, with such peak demands not necessarily corresponding in timing to system peak demands. Accordingly, measuring each subgroup's peak or, more feasibly, each class's
peak, and then estimating the class's share in the sum of the peaks across all classes, is a reasonable way to judge responsibility for demand-related cost causation applying to distribution investment.

## Q. How does DP\&L allocate demand-related distribution costs?

A. DP\&L applies the 1 NCP approach, in line with the practices of many other utilities. As with other utilities, the allocator has several representations based on the levelization of costs. Thus, the DP\&L COS model features three NCP allocators applicable to substation, primary, and secondary service levels. The "Pri_Sub_Dem" allocator is based on the peak demands of all distribution customers and allocates substation-related costs to all distribution customers. The "Pri_Dem" allocator is based on the peak demands of distribution customers excluding substation customers and allocates costs at the primary level, costs for which all customers whose classes are included in the allocator are responsible. The "Sec_Dem" allocator, in contrast, includes only secondary service level classes in the allocator computation, and allocates costs for which only secondary customers are responsible. This practice is common among utilities.

## Q. Are you familiar with the development of DP\&L's 1NCP allocators?

A. Yes. Although I did not supervise their construction, I have reviewed their development and find them to be reasonable and acceptable for cost allocation.

## Q. How did DP\&L develop its 1NCP allocators?

A. DP\&L possesses load research data for its customer classes. The utility collaborated with CA Energy Consulting to develop class load profiles for the period November 1, 2013 to October 31, 2014. The results of the load research study are sponsored by Company

Witness Adams. DP\&L then calculated annual class maxima and the resulting allocators by voltage service level.
Q. Why do you characterize this process as reasonable?
A. This application of load research data to generate demand-related allocators is conventional. Again, it is consistent with other utilities' practices and my experience.
Q. How do utilities typically allocate customer-related distribution costs?
A. Utilities develop customer-related allocators that record the shares of customers by class, often weighted to represent cost variation across customer classes. For example, a utility might use customer numbers, weighted by meter cost in each class as a customer-related allocator of meter costs.
Q. How does DP\&L allocate customer-related distribution costs?
A. DP\&L uses allocators based on customer numbers and defined by voltage service level for various types of assets and expenses. In addition to these customer accounts allocators, there are allocators for service drops and meter equipment, based on enumeration of the utility's assets and expenses in these categories. In addition, the utility develops allocators for customer deposits and contributions in aid of construction, again based on enumeration of financial data pertaining directly to these cost categories.

## VI. COST-OF-SERVICE RESULTS

Q. Would you please discuss the schedules that you are supporting with your testimony?
A. I am supporting four schedules. They are Schedule E-3.2, Cost of Service - Total Jurisdictional Costs; Schedule E-3.2a, Cost of Service - Demand Costs; Schedule E-3.2b, Cost of Service - Customer Costs; and Schedule E-3.2c, Cost of Service - Allocators. The first of these provides a summary of the computations in the next two schedules, while the allocators schedule provides the means by which classification and allocation shares are developed.

## Q. Would you please describe the contents of Schedule E-3.2?

A. Schedule E-3.2, Cost of Service - Total Jurisdictional Costs, presents summary information for all financial accounts for the twelve-month adjusted test period ending May 31, 2016, first classified into demand- and customer-related categories and then allocated (or assigned) to the utility's rate classes. The schedule contains eight pages, the first of which presents aggregate rate base, expense, net return, actual rates of return, revenue deficiency given target rate of return, and culminates in proposed revenue increase overall and by class. Subsequent pages present the details that produce the totals on the first page. This schedule was prepared using information provided by other Company witnesses in Schedules $\mathrm{B}, \mathrm{C}$, and D .

## Q. What does the first summary page (page 1 of 8 ) of Schedule E-3.2 show?

A. In brief, the first summary page indicates that DP\&L has a jurisdictional revenue base requirement of $\$ 278.059$ million (line 32) and currently earns a rate of return of $1.65 \%$ (line 21). This filing requests that the Commission approve a rate of return of $7.86 \%$ (line 14). That rate of return ("ROR") produces a revenue deficiency and proposed revenue increase of $\$ 65.772$ million (lines 26 and 28).

Page 1 (line 21) also reveals that rates of return currently vary between $-236.55 \%$ for the Private Outdoor Lighting rate class and $3.38 \%$ for the Secondary Customers rate class.

The proposed revenue increases by tariff class are predicated upon a target rate of return for each class, as supported by Company Witness Parke.
Q. Did you review the Company's proposed revenue change by tariff class and resultant RORs?
A. Yes. I reviewed the proposal and, given DP\&L's proposed overall ROR, I believe that the adjustments made to individual tariffs' present revenues are reasonable and that an appropriate and fair methodology for adjustment was used. This methodology avoids excessive rate changes, to the extent possible within classes, and moves all of the rate classes' RORs closer to the Company's proposed overall ROR.

## Q. What does the second Schedule E-3.2a present?

A. Schedule E-3.2a, Cost of Service - Demand Costs, provides information for the utility and each rate class covering costs caused by demand. The schedule is structured to be exactly parallel with Schedule E-3.2, with summary information on page 1 of 8 . The two leftmost columns containing numbers present jurisdictional total cost and demand-related cost. Columns to the right contain demand-related cost by tariff class.

## Q. What is contained on the first page of Schedule E-3.2a?

A. The first page (page 1 of 8 ) shows that about $70 \%$ of rate base is deemed demand-related, and about $72 \%$ of operating expenditures are so deemed. (Lines 5 and 12 , respectively.)
Q. What is shown on subsequent pages of Schedule E-3.2a?
A. Each subsequent page displays the allocator used to determine class shares of an account's demand-related costs. For example, line 8 on page 2 of 8 shows that the Dist_Land_Dem allocator was used to allocate the gross plant value of Land and Land

Rights. As the name suggests, the allocator is a reflection of a demand-related allocator that, as shown on Schedule E-3.2c, is partially based on the 1NCP Pri_Sub_Dem allocator discussed earlier.

## Q. How were these demand-related and customer-related allocators on Schedule E-3.2a selected?

A. CA Energy Consulting and DP\&L reviewed the various investments, revenues, and expenses in need of allocation and collaboratively determined the appropriate allocation method for each item. CA Energy Consulting concluded that the allocators comport with industry practice and/or have a common-sense basis.
Q. Are you confident that these allocators are correctly applied by the model?
A. Yes. CA Energy Consulting reviewed the model in detail and concluded that the allocators identified in the model in Schedules E-3.2a and E-3.2b utilize the proper allocator values and correctly calculate class shares.
Q. If we turn to Schedule E-3.2b, Customer Costs, what are the salient points?
A. This schedule is structured identically to its two predecessors. Page 1 of 8 provides the shares of rate base and expenses that are customer-related. (Please see lines 5 and 12, respectively.) Customer-related distribution costs appear to be relatively less significant than demand-related costs, in aggregate.

## Q. Should we note anything else in Schedule 3-2b?

A. Yes. On rare occasion, an account will be allocated by the term "Direct." An example appears on page 2 of 8 , at line 18. FERC account 371, Installations on Customer Premises, is assigned entirely to the Private Outdoor Lighting class. In this case, lighting
equipment can be identified with a unique class, so an allocation of common costs is not necessary.
Q. Turning to Schedule 3-2c, Cost of Service - Allocators, would you please describe the purpose of this schedule and its functioning in the development of the preceding schedules?
A. Yes. This schedule computes or acquires the shares used in allocating individual accounts' costs in Schedules E-3.2a and E-3.2b. Schedule E-3.2c consists of four pages. Pages 1 and 2 contain the basic demand and customer allocators. The demand allocators are derived, as mentioned, from the load research study of DP\&L, while the customer allocators originate with customer numbers and weights computed by DP\&L for services, meters, and other categories. I have reviewed the associated workbooks and verified their calculations.
Q. What information appears on subsequent pages of Schedule 3-2c?
A. Pages 2 and 3 of that schedule contain calculations of the demand and customer components of the main distribution accounts (FERC accounts 360-368): land, structures, poles, conductor, underground conduit, and line transformers. The calculations reveal compartmentalization between primary and secondary voltage service levels, followed by division between demand and customer components and, ultimately, rate classes. The primary/secondary split occurs off-board based on calculations by DP\&L staff while classification and allocation makes reference to the previous basic demand- and customer-related allocators.

Page 4 develops additional allocators based on aggregates that are computed in the preceding schedules. Examples include gross and net plant, types of expenditures, and income tax. Examination of Schedules E-3.2a and E-3.2b reveals that these allocators are used in locations where no previous allocator is appropriate. For example, the allocation of customer-related miscellaneous intangible plant (Schedule E-3.2b, page 2, line 38) is based on shares of gross distribution plant that is customer-related (Gr_Dist_Plant_Cust).

## VII. CONCLUSIONS

## Q. What are the conclusions of your testimony?

A. DP\&L's COS Study fairly and accurately presents the classification and allocation of the utility's financial information to its retail customer classes. Reasonable and well established allocators are used in cost allocation. Classification percentages are derived in demonstrably reliable computations of cost shares by voltage service level and minimum size for the major asset accounts. Classification for other accounts is consistent with industry standards. Additionally, the COS study reveals the current rate of return for the utility as a whole and for individual classes, based upon sound cost causation and provides essential information for guidance in rate setting.

## Q. Does this conclude your direct testimony?

A. Yes.

## BEFORE THE

# PUBLIC UTILITIES COMMISSION OF OHIO 

# THE DAYTON POWER AND LIGHT COMPANY 

CASE NO. 15-1830-EL-AIR
CASE NO. 15-1831-EL-AAM
CASE NO. 15-1832-EL-ATA

## DIRECT TESTIMONY

OF ALAN D. FELSENTHAL

- 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

ALAN D. FELSENTHAL

ON BEHALF OF
THE DAYTON POWER AND LIGHT COMPANY

TABLE OF CONTENTS
I. INTRODUCTION ..... 1
II. PURPOSE OF TESTIMONY ..... 4
III. LEAD-LAG STUDY OVERVIEW ..... 4
IV. PROCEDURES USED TO PREPARE THE LEAD-LAG STUDY ..... 7
V. OTHER CONSIDERATIONS ..... 19
VI. CONCLUSION ..... 20

# Alan D. Felsenthal 

Page 1 of 20

## I. INTRODUCTION

Q. Please state your name and business address.
A. My name is Alan D. Felsenthal. My business address is One North Wacker Drive, Chicago, Illinois, 60606.

## Q. By whom and in what capacity are you employed?

A. I am a certified public accountant and a Managing Director at PricewaterhouseCoopers LLP ("PwC"). PwC performs examinations in accordance with generally accepted auditing standards of the financial statements of public utilities and other companies and entities for the purpose of evaluating whether they were prepared in conformity with generally accepted accounting principles and applicable rules of regulatory agencies. We also conduct special studies requested by our clients, prepare tax returns and provide other consulting services. Throughout my career, my focus is on the regulated industry sector, primarily electric, gas, telecommunication and water utilities.

## Q. On whose behalf are you offering this testimony?

A. I am presenting testimony on behalf of The Dayton Power and Light Company ("DP\&L" or "Company").
Q. Will you describe briefly your educational and business background?
A. I graduated from the University of Illinois in 1971 and began my career at Arthur Andersen \& Co ("Arthur Andersen"), where I was an auditor, focusing on audits of financial statements of regulated entities. In 2002, I joined PricewaterhouseCoopers and became a Managing Director in their Utilities Group and continued performing audits for
regulated entities. I was hired by Huron Consulting Group ("Huron") in 2008 and returned to PwC in November of 2010.

At both Arthur Andersen and PwC, I supervised audits of financial statements on which the firms issued audit opinions that were filed with the Securities and Exchange Commission ("SEC"), the Federal Communications Commission, the Federal Energy Regulatory Commission ("FERC") and various state commissions. At Arthur Andersen, PwC and Huron, I consulted on a significant number of utility rate cases and helped develop testimony for myself and others on a variety of issues, including construction work in progress in rate base, projected test years, lead-lag studies, cost allocation, several accounting issues (e.g., pension accounting, regulatory accounting, income tax accounting, cost of removal) and compliance with the income tax normalization requirements. The testimony developed for myself or others was filed in Arizona, Florida, Illinois, Iowa, Indiana, Michigan, Minnesota, Nevada, New Mexico, Texas, Washington and Wisconsin. I have testified before the Arizona Corporation Commission, the Florida Public Service Commission, the Illinois Commerce Commission, the Indiana Utility and Regulatory Commission, the Public Utility Commission of Texas and the Washington Utilities and Transportation Commission.

## Q. Have you dealt with the unique accounting, tax, and financial reporting issues encountered by regulated enterprises?

A. Yes. Throughout my career, I have focused on utility accounting, income tax and regulatory issues, primarily as a result of auditing regulated enterprises. The unique accounting standards applicable to regulated entities embodied in Accounting Standards Codification ("ASC") 980, Regulated Operations (formerly, Statement of Financial

Accounting Standards ("SFAS") 71, FAS 90, FAS 92, FAS 101 and various Emerging Issues Task Force ("EITF")) issues all need to be understood so that auditors can determine if a company's accounting has been applied appropriately. During my career, I have witnessed the issuance of these standards and have consulted with utilities as to how they should be applied. At both Arthur Andersen and PwC, I worked with the technical industry, accounting and auditing leadership to communicate and consult on utility accounting and audit matters.

## Q. Have you provided training on the application of Generally Accepted Accounting Principles ("GAAP") to regulated enterprises? <br> A. Yes. At Arthur Andersen, Huron and PwC, I developed and presented utility accounting seminars focusing on the unique aspects of the regulatory process and the resulting accounting consequences of the application of GAAP. I have presented seminars, as well as delivered training on an in-house basis. Seminar participants have included utility company and regulatory commission staff accountants, utility rate departments and internal auditors, tax accountants and others. I have also conducted these seminars inhouse for the FERC and several state commissions, and I have presented at various Edison Electric Institute and American Gas Association ratemaking and accounting seminars.

Q. Have you ever been associated with the determination of working capital requirements?
A. Yes. I have consulted with various clients on a variety of questions and matters related to that subject, and I have led engagements to perform lead-lag studies for utilities in New Mexico and Illinois.

## II. PURPOSE OF TESTIMONY

## Q. What is the purpose of this testimony?

A. The purpose of my testimony is to support the cash working capital component of the working capital component of rate base as applied through the performance of a lead-lag study.

## Q. What schedules and workpapers in the filing are you sponsoring?

A. I am sponsoring the following schedules and workpaper:

- Schedule B-5, Allowance for Working Capital, page 1
- Schedule B-5.1, Miscellaneous Working Capital Items, page 1
- Workpaper B-5.1a, Cash Working Capital Items
Q. What is the overall result of the Lead-Lag Study?
A. As shown on Schedule B-5.1, page 1, the revenue lag is $\$ 36,608,278$ and the expense lead is $\$ 38,435,765$, producing a cash working capital requirement of $(\$ 1,827,487)$. Workpaper B-5.1a contains the various lead and lag days applied to the various revenue requirement components (e.g. revenues, costs and return) to derive the overall cash working amounts. Exhibits ADF- 1 through ADF-8 provide support for the lead and lag days used to develop the cash working capital requirement.


## III. LEAD-LAG STUDY OVERVIEW

## Q. What is a Lead-Lag Study?

A. A lead-lag study is a means to identify the cash working capital requirements of a utility that recognizes the need for additional investment from debt and equity holders in order to pay for the shortfall between (a) the time period in which service has been provided to

Alan D. Felsenthal
Page 5 of 20
customers and such customers actually pay for such service ("revenue lag") and (b) the time period in which vendors, employees and investors provide service to the Company and such vendors, employees and investors are fully paid for rendering this service ("expense lead").

As with prior cases at the Public Utilities Commission of Ohio ("PUCO") and consistent with the PUCO Staff guidance on preparing a lead lag study, the lead lag study includes the cash working capital requirements for all of DP\&L's revenue requirement/cost of service components. Considering all revenue requirement/cost of service components is necessary to produce a complete measure of the investor-supplied cash working capital committed to providing utility service.

Said another way, the overall revenue requirement consists of recovery of various operating expenses and a return. From the revenue requirement, a tariff is developed which is billed to customers as service is rendered to those customers. There is a lag from the time that service is provided to customers and those customers pay for this service. On the other hand, many of the expenses and the overall return that the revenue requirement is meant to recover are incurred by the Company in advance of when actually paid. When the lag in revenue recovery is greater than the lead in payment of expenses and costs, that difference requires additional investor (i.e., debt and equity) funding. That additional investor funding requires a return and, therefore, the amount of such funding represents the cash working capital requirement that is included in rate base.

In the first part of a lead-lag study, the revenue lag is determined by measuring the number of days from the date service is provided to customers until cash collection occurs. This revenue lag represents a use of funds which must be supplied by the Company through its
investors to provide service to customers prior to cash collection. The second step is to determine the expense lead, or the period of time between the receipt of goods and services provided to Company and the date at which payment for those goods and services is required. This expense lead represents a source of funds which, during the duration of the period, reduces the amount of funds to be provided by the Company through its investors as such funds are provided temporarily by the Company's creditors.

The net result of the revenue lag as applied to the test period revenues and the expense and return lead as applied to the test period expenses and overall return is added to rate base representing the additional capital supplied by debt and equity holders needed to fund the day-to-day operations of the Company.

## Q. Does the Lead-Lag Study look at revenues and costs independently?

A. Yes. Revenue lags and expense leads are calculated independently. By this I mean that the study identifies the unique characteristics of various revenue and costs. For instance, the time between when service is rendered and employees are paid is different than the time between when current income tax is expensed versus when paid or when insurance coverage is provided versus when paid. The resulting weighted average lag or lead days are applied to the overall revenue requirement and to the individual categories of test year costs comprising the revenue requirement. The net result, either positive or negative, represents the allowance for cash working capital. If positive, the allowance for cash working capital indicates the need for additional investor investment. If negative, the result would indicate that noninvestor sources are available.

# Alan D. Felsenthal 

Page 7 of 20

The cash working capital allowance determined from the Lead-Lag Study is added to other balance sheet items, such as materials and supplies and various prepaid assets, to yield the total working capital allowance, which is included in rate base.

## IV. PROCEDURES USED TO PREPARE THE LEAD-LAG STUDY

## Q. How did you develop the Lead-Lag Study?

A. In March 2014, initial discussions were held with Company personnel to obtain an understanding of various DP\&L processes regarding billings, payroll and benefits, insurance, taxes other than income taxes and income taxes. From these discussions lead and lag days were developed considering the processes in place in 2014. The results of this initial work were updated in 2015, where necessary, to include the number of days reflecting the processes in existence in the April-June 2015 period.
Q. What is the source of the information that you used to prepare the Study?
A. The sources of the information are the processes in place throughout 2014 and updated, as necessary, for any process changes occurring in the months preceding the beginning of the test period (the test period is June 2015-May 2016). Information from the books and records of the Company was used to develop the lead and lag days for the various revenue and expense components of the Lead-Lag Study.
Q. Why were periods in 2014 used for the Lead-Lag Study when the test year for the rate case is the twelve months ended May 31, 2016 ?
A. Because of the nature, complexity and timing of a lead-lag study, it is not practicable to use the test year as the study period. Data from both 2014 and 2015 was used to obtain the lead and lag days that were indicative of the processes that are representative of the
test period and applied the results to the components of the Company's revenue requirement. Unless there have been or will be changes in processes or activities requiring updating, the study period results should be representative of the test year.

## Q. Were there any times in the Lead-Lag Study where conditions had changed from your initial study period to the results reflected in your updated study?

A. Yes. The insurance leads changed due to several director, officer and fiduciary policies purchased at the time The AES Corporation ("AES") (DP\&L's parent company) acquired DP\&L. DP\&L prepaid these policies for 3 years. The majority of their insurance policies are now currently prepaid for a one-year term. By removing the multi-year policies and replacing them with one year policies, the negative lead days has changed to approximately 29 days.

In the more recent study period, DP\&L also stopped issuing manual payroll checks to its employees. This process change reduced the payroll expense lead days by approximately one-half a day.

Third, in the more recent study period, the collection of the Ohio Development Services Agency ("ODSA") receivables was approximately 2 days faster than the original results. ODSA pays a portion of low income customers' electric bills who qualify for its Percentage of Income Payment Plan ("PIPP") Plus program.

Finally, the allocated expenses lead days decreased to a negative 3.99 days from a positive 36.4 days. The original testing included the first few months of AES U.S. Services, LLC ("AES Services"). In 2015, the Company changed its payment process to AES Services to require monthly payments, typically in advance, so that the updated days are the most representative of the going forward activity.

The other components of the Lead-Lag Study have not been adjusted as there have been no process changes.

## Q. On what basis was the Lead-Lag Study performed?

A. DP\&L is a vertically integrated utility and uses a single customer billing system, accounts payable system and payroll system for billing its customers and paying its employees and vendors. We performed a single study primarily covering only the distribution components of Company processes. In almost all cases, the leads and lags for the Company's distribution activities mirror the activities of the Company as a whole.

## Q. Please describe how the Lead-Lag Study was prepared.

A. Payment patterns were measured for various periods in 2014, and then updated as necessary for changes closer to the beginning of the test period. The use of this historic period is appropriate because a basic foundation of any lead-lag study is that customer collection and Company payroll and invoice payment patterns do not change significantly from period to period. Based on that premise, one can measure these patterns for a historical period and apply them to a current or future test period in the rate case to reach valid results. As long as there are no significant changes between the historical period and the test year, the premise is valid.

## Q. Please discuss the lead-lag summary Workpaper B-5.1a.

A. Workpaper B-5.1a is an overall summary of the lead-lag days for the various revenue, expense and return components making up DP\&L's revenue requirement. Exhibits ADF-1 through ADF-8 contain the lead and lag days by revenue, expense and return category that roll up to this summary workpaper.

# Alan D. Felsenthal 

Page 10 of 20

## Q. Please discuss the determination of the revenue lag days (Exhibits ADF-1 and Exhibit ADF-2).

A. There are three components comprising the revenue lag: 1) the meter reading lag, measured from the middle of the month for which electric service is provided until the meter is read; 2) the billing lag, reflecting the time required to process and record bills; and 3) the collection lag, representing the time delay between the recording of bills and the receipts from customers. The total number of days produced by these components represents the amount of time between the delivery of electric service to customers and the receipt of the revenues related to such service. Because of billing and collection differences between revenues billed and collected from DP\&L customers versus the revenues billed and collected from ODSA on behalf of certain customers, a separate revenue lag was calculated for these two payment sources. The revenue lag for DP\&L customers is shown on Exhibit ADF-1 and the revenue lag for customers paid through ODSA is shown on Exhibit ADF2.

## Q. How is the meter reading lag computed?

A. The meter reading lag represents the time from when the customer receives electric service to the day that the customer meter is read (i.e., end of service period). Because service is generally received over a period of time (i.e., a calendar month), the actual meter reading lag is calculated as the midpoint of the service period, assuming that service is received uniformly over the period.

DP\&L assigns each of its meters to one of 21 cycles over the month, each of which is read approximately every 30 days. Based upon this methodology, the meter reading lag is calculated by dividing the number of days in the test period (365) by the applicable
monthly midpoints factor ( 24 , or 12 months divided by 0.5 ). The resulting lag is 15.2 days.

## Q. Please describe the determination of the billing lag.

A. DP\&L has three different billing processes for its revenue: traditional system billing (Traditional and PIPP customers), Bill Ready, and Summary Billing.

Traditional system billing applies to those customers whose meter readings are downloaded into the customer revenue billing system, which automatically calculates and processes the bill on the next business day. The average billing lag for traditional customers is 1.6 days and for PIPP customers is 1.5 days.

Bill Ready customers' bills are calculated in the same manner as the traditional system billing, but there is an additional lag because DP\&L must wait to receive the charges from the supplier to include on the customer's bill. The billing lag for these customers is 3.9 days.

Lastly, summary billed customers have several metered locations whereby the individual bills for each location are accumulated until the bill date of the meter with the latest read date, at which time one bill is sent for all accounts related to the master account. The billing lag for this group of customers is 13.7 days.

Using a weighted average approach to the revenue derived from each of these customer groups results in a billing lag of 2.2 days.

## Q. How is the final component of the revenue lag, the collection lag, determined?

A. This calculation measures the number of days from when the revenue is recorded to accounts receivable to when the bill is paid by the customer and deposited by the

Company. The "accounts receivable turnover approach" method was used. A separate calculation was made for traditional/ summary bill customers and PIPP customers as the process is different for these two categories of customers.

For traditional and summary bill customers (a master account bill for summary bill customers), payment is due within 20 days from the bill date. PIPP customer installment bills are also due within 20 days, but their ability to pay is different (longer) than that of the traditional population and therefore they were segregated for purposes of determining the collection lag.

For each of these populations, the average collection lag was calculated by dividing the average accounts receivable by the average daily billings (revenue). These two amounts were calculated as follows:

- Because daily reports were not available, the average daily accounts receivable balance was calculated by summing the test period monthly balances and dividing by the number of months applicable.
- The average daily billings' was calculated by first summing annual revenue (including any additional charges included in revenue) to determine gross revenue. All of the items used to calculate gross revenue were included to be consistent with the components included with the average daily accounts receivable balances (i.e., the receivable balance is the sum of outstanding customers' bills, which include electric revenue, and additional charges). Gross revenue was then divided by the number of days within a year (365) to identify average daily billings.

Collection lags of 24.9 days for traditional and summary bill customers and 35.4 days for PIPP customers resulted. The weighted average collection lag using revenue derived from each of these customer groups is 25.3 days.

## Q. Can you summarize the results of the revenue lag calculation?

A. Yes. The revenue lag is the sum of the three components:

| Meter Reading Lag | 15.2 days |
| :--- | ---: |
| Billing Lag | 2.2 days |
| Collection Lag | $\underline{25.3}$ days |
| Total Revenue Lag | 42.7 days |

## Q. Did the revenue lag give any consideration for allowance for doubtful accounts?

A. No. The Company is excluding bad debt expense from normal customer activity in this Lead-Lag Study. A separate rider to recover bad debt expense is anticipated.

## Q. Did your update testing produce similar results?

A. Yes. Even though similar processes were maintained for both study periods, the updated testing produced a lag of 43.8 days for an increase of 1.1 days. However, the level pay customer receivable balances were at historically high levels during this period. The Company was in the process of adjusting the monthly amounts customers needed to pay under this program to bring the receivable balances back to normal levels. The majority of the lag increase was due to the level pay customer receivable balances and not representative of test period conditions and thus, the lag days determined in the original study were used for the Lead-Lag Study.
Q. Can you discuss the effect of the Universal Service Fund ("USF") rider on the study?
A. The Universal Service Fund rider is a bill component paid by all customers to subsidize low income customers. There are three main cash flows from this rider. First, the Company collects the rider amount from its customers on the same revenue lag as discussed previously at 42.7 days. Second, the rider amounts billed to customers the previous month are summarized, reduced by an estimated bad debt amount and remitted to the ODSA. This payment lead is 30.9 days. Though the updated testing resulted in a 30.2 day lag, it was determined that the lag based on the original calculation continues to be the best representation of prospective activity as the process had not changed. The third cash flow is the receipt of the subsidy from ODSA that pays for a portion of the PIPP customers' electric bill. The PIPP customer payment lag is calculated at 54.5 days. The updated testing produced 55.5 days, but because the basic process had not changed, the lag days from the original calculation were used. The projected amount of revenue paid by ODSA for PIPP customers has been established on a separate revenue line in summary Workpaper B-5.1a to reflect the different lag days.

## Q. Turning to expenses, what is the first major expense category?

A. The first major category is payroll. The Company has a bi-weekly payroll that includes exempt, union, and non-union hourly employees. It was necessary to analyze the payment leads and lags associated with net pay for payroll, as well as the payment lead and lags associated with payroll taxes and other deductions during the study period. All of the components were analyzed in their entirety, except for manual payroll checks, which were sampled due to the size of the population.

Alan D. Felsenthal

Page 15 of 20

## Q. What procedures did you perform to determine the payroll lead?

A. The lead days for payroll costs were computed by determining the average days of service being reimbursed during the service period and adding the days from the end of the service period to the point of reimbursement. Specifically, this calculation measures the number of days from the middle of the service period to the point of reimbursement. For the majority of the payroll that is paid using direct deposit, funds are disbursed 6 days following a pay period. Manual checks were sampled to determine the lead days for employees who are not utilizing direct deposit.

Other components of payroll costs including payroll taxes, 401(k) contributions, healthcare related contributions, United Way, union dues and garnishments were separately evaluated similar to the net payroll costs above. The exempt and union bonuses' leads were separately computed as being earned over the previous year (i.e. service period) and adding the days from the end of that period to the point of reimbursement. A weighted average was developed for the leads associated with these individual payroll components producing an overall payroll lead of 25.7 days. The updated testing produced a lead of 25.2 days with the removal of the manual checks. The 25.2 days are supported on Exhibit ADF-3.

## Q. What is the next expense category?

A. The next category analyzed is Other Operating \& Maintenance ("O\&M"). Exhibit ADF-4 contains the support for this analysis. This category measures the interval between the receipt of goods and services not separately studied (i.e., payroll, insurance, expenses allocated from AES Services, taxes other than income taxes ("TOIT"), income taxes and return) and payment for such goods and services. Because $O \& M$ is a large population of individual
transactions with varying service periods and payment lead times, it was necessary to use a statistical sampling methodology. The sample size was determined in order to achieve a $95 \%$ confidence level. The original sample was selected from a population of O\&M transactions processed during the period July 1, 2013 through June 30, 2014 and contained 68 selections. The updated sample in 2015 had 10 selections. Once the samples were assessed for their lead times, the average lead was calculated using the days and dollars for the individual selections. The sample derived a lead of 35.2 days. The updated sample derived a lead of 37.6 days, but because the basic process had not changed and there were no individual selections outside of the original sample lead day range, the original number of lead days was used in the lead-lag analysis.

## Q. How has insurance been included in the Lead-Lag Study?

A. DP\&L has several different insurance policies, but the majority of the policies are paid for a full year of coverage. The insurance companies generally require that coverage be paid in advance of the service period. This lead was computed by determining the service (i.e., coverage) period and deducting the amount of days prepaid from the midpoint of the service period. In the initial study period, the insurance expense negative lead was calculated to be 187.9 days, but as discussed previously, there was a change from multi-year to single year coverage periods producing a negative lead of 159.7 days which was utilized in determining the Lead-Lag Study amounts. The supporting detail is contained on Exhibit ADF-5.
Q. How have allocated expenses been included in the Lead-Lag Study?
A. Exhibit ADF-6 supports the days applied to AES Services costs billed to DP\&L. AES established AES Services in January 2014 to provide common services to their domestic
utilities. Examples of these common services include human resources, legal and finance. DP\&L and the other AES U.S. entities provide cash to the service company so the service company can pay its obligations. The lead for this expense category was determined by deducting the days from the prepayments to the midpoint of service. In the original study period, the lead for this expense was 36.4 days. As previously noted, the original study period coincided with the beginning of AES Services and process changes have subsequently taken place. The updated testing lead days reflect the updated processes resulting in a negative lead of 3.99 days which is used in the Lead-Lag determination.

## Q. How was bad debt expense treated?

A. In determining the collection lag using the turnover approach, the reserve for uncollectible accounts was deducted from the accounts receivable balance. This reduces the overall revenue lag. Accordingly, the bad debt expense is assigned zero lead days.

## Q. How have non-income related taxes been included in the Lead-Lag Study?

A. Taxes other than income taxes ("TOIT") are composed primarily of revenue related taxes (i.e. kWh ) and property taxes. The kWh taxes are paid monthly while the Ohio property taxes are paid a year in arrears. All tax payments can be identified with a specific statutory requirement and are separately evaluated for purposes of the Lead-Lag Study. As shown on Exhibit ADF-7, for all of such taxes, the midpoint of the service period was identified and the respective lead or lag days from this midpoint to the payment date was determined. The weighted dollars for each payment were calculated and divided by the total payment to determine the number of lead-lag days. The TOIT expense lead days averaged
179.1 days. As payments are based on statutory requirements which have not changed, the 179.1 days determined in our original study period is used for this expense.

## Q. What are the lead days for federal income taxes?

A. The lead for federal income taxes is 37.0 days. The number of days was calculated by measuring the days between the midpoint of an annual calendar year service period and the statutory payment dates for estimated and final federal income tax payments. Estimated tax payments are made quarterly on April 15, June 15, September 15 and December 15. The estimated payments must equal at least $100 \%$ of the annual liability. These quarterly payments made on the indicated dates and measured against the midpoint of the year results in a 37.0 day expense lead.
Q. How are lead days for the depreciation expense and deferred income taxes determined?
A. These expense categories are assigned zero lead days. The recording of depreciation expense and deferred income tax expense results in balance sheet offsets (Accumulated Depreciation and Accumulated Deferred Income Taxes) that are deducted from rate base as though fully recovered and available as cost free capital. In other words, because rate base is reduced for the recorded balance of such costs at the time the related expense is recorded in the books and records (whether or not actual recovery matches the amounts recorded as expense) for rate case purposes, it is believed that such non-investor sources of capital have been supplied. However, even with this premise, there continues to be a revenue recovery lag for the recorded amount of depreciation and deferred income tax expense included in the revenue requirement that is not received for 42.7 days.
Q. How is the return treated in the Lead-Lag Study?

Alan D. Felsenthal

Page 19 of 20
A. All components of return have been given a lead of zero days as both common stockholders and debt holders are each considered as investors and as such, entitled to a daily return on "investor supplied funds."

## V. OTHER CONSIDERATIONS

## Q. Did you consider anything else in this Lead-Lag Study?

A. Yes. There are two other issues requiring cash working capital that have not been considered in determining DP\&L's base rate cash working capital requirement. The Company is required to become the Provider of Last Resort ("POLR") for customers that have not selected a generation supplier. This POLR activity has a working capital aspect. The revenue for the generation supply will have the same 42.7 day lag as discussed in this testimony. However, the POLR supplier payments must be paid by the 19 th day of the following month, creating a 33.2 day lead. The Company believes that this working capital component should be borne only by the POLR customers. It is my understanding the Company will be asking for POLR working capital relief in a future rate filing. Similarly, consideration was given to the Company billings to the OSDA for the PIPP customer bills. This billing is for generation, transmission and distribution service. In the Lead-Lag Study, the distribution portion of these receipts was split from the revenue requirement as these collections have a 54.5 day lag. There is a similar shortfall for the production and transmission services received by the distribution customer. The amounts of such costs and revenues have been separately shown on the summary schedule and the investor-supplied capital required to fund this difference should be considered for recovery through a separate mechanism.

# Alan D. Felsenthal <br> Page 20 of 20 

## VI. CONCLUSION

Q. How are the Lead-Lag days determined in your total Company study applied to determine the cash working capital requirement in DP\&L's Rate Case?
A. Schedule B-5.1 and Workpaper B-5.1a contain the application of the results of the Lead-Lag Study. On Workpaper B-5.1a, the lead or lag days were applied to the daily revenue requirement for comparable components of revenue, expense or return which are included in the filed case, to derive the cash working capital requirement. Exhibit ADF- 1 through ADF-8 provide support for the lead and lag days used to develop the cash working capital requirement. The daily revenue requirement is the jurisdictional adjusted revenues and expenses divided by 365 . Schedule B-5.1 sums the revenue lead and expense lag from Workpaper B-5.1a. These calculations result in a cash working capital requirement of $(\$ 1,827,487)$.

## Q. Does this conclude your direct testimony?

A. Yes, it does.

|  |  | The Dayton Power and Light Company <br> Case No. 15-1830-EL-AIR <br> Total Blended Revenue Lag |  | Exhibit ADF-1 Page 1 of 39 |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Original Results | Updated Results |  |
| $\begin{gathered} \text { Line } \\ \text { No } \end{gathered}$ | Lag Type | Lag Days (7/1/136/30/14) | Lag Days (6/1/14$5 / 31 / 15$ ) |  |
| 1 |  |  |  |  |
| 2 | [a] Meter Reading Lag | 15.2 | 15.2 |  |
| 3 |  |  |  |  |
| 4 | Billing Lag | 2.2 Page 2 | 2.4 Page 3 |  |
| 5 |  |  |  |  |
| 6 | Collection Lag | 25.3 Page 31 | 26.2 Page 32 |  |
| 7 |  |  |  |  |
| 8 | Total Revenue Lag | 42.7 | 43.8 [b] |  |

[a] Meters are read on a monthly cycle, which to determine the average time during the month the customers meter is read, the average midpoint of all
the months during the year is used. ( 365 days $/ 12$ months $/ 2$ midpoint of the month)
[b] During the update testing, Budget Billing $A / R$ balances were unusually high due to weather. Since the increase in Budget Billing $A / R$ was a one
time event and is not expected to recur, the lag days of 42.7 appears to be the most appropriate prospectively.


| The Dayton Power and Light CompanyCase No. 15-1830-EL-AIRWeighted Average Billing Lag - Updated Results |  |  |  |  |  |  | Exhibit ADF-1 Page 3 of 39 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line | Revenue Type |  | Average Daily Revenue |  | WP | Lag Days | Dollar-Days Lag |  |
| No |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |
| 2 | PIPP | Page 30 | \$ | 82,384 | Page 18 | 1.5 | \$ | 120,389 |
| 3 |  |  |  |  |  |  |  |  |
| 4 | Summary Bill | Page 30 | \$ | 39,823 | Page 22 | 13.6 | \$ | 540,630 |
| 5 |  |  |  |  |  |  |  |  |
| 6 | Bill Ready | Page 30 | \$ | 564,346 | Page 23 | 4.1 | \$ | 2,302,628 |
| 7 |  |  |  |  |  |  |  |  |
| 8 | Traditional (All Other) Customers | Page 30 | \$ | 1,592,549 | Page 27 | 1.5 | \$ | 2,465,132 |
| 9 |  |  |  |  |  |  |  |  |
| 10 | Total |  | \$ | 2,279,102 |  |  | \$ | 5,428,779 |
| 11 |  |  |  |  |  |  |  |  |
| 12 | Weighted Average Day Lag |  |  |  |  |  |  | 2.4 |


|  | The Dayton Power and Light Company Case No. 15-1830-EL-AIR PIPP - Billing Lag |  |  |  |  |  | Exhibit ADF-1 Page 4 of 39 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line |  |  |  |  |  |  |  |  |  |
| $\begin{gathered} \text { No } \\ 1 \\ 2 \end{gathered}$ | July-13 |  |  | August-13 |  |  | September-13 |  |  |
|  | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date | Billing Date Billing Lag |  |
|  |  |  |  |  |  |  |  |  |  |
| 3 | 6/28/2013 | 7/1/2013 | 3 | 7/31/2013 | 8/1/2013 | 1 | 8/30/2013 | 9/3/2013 | 4 |
| 4 | 7/1/2013 | 7/1/2013 | 1 | 8/1/2013 | 8/2/2013 | 1 | 9/3/2013 | 9/4/2013 | 1 |
| 5 | 7/2/2013 | 7/2/2013 | 1 | 8/2/2013 | 8/4/2013 | 3 | 9/4/2013 | 9/4/2013 | 1 |
| 6 | 7/3/2013 | 7/4/2013 | 2 | 8/6/2013 | 8/7/2013 | 1 | 9/5/2013 | 9/6/2013 | 1 |
| 7 | 7/5/2013 | 7/7/2013 | 3 | 8/7/2013 | 8/8/2013 | 1 | 9/6/2013 | 9/8/2013 | 3 |
| 8 | 7/9/2013 | 7/10/2013 | 1 | 8/8/2013 | 8/8/2013 | 1 | 9/7/2013 | 9/9/2013 | 2 |
| 9 | 7/10/2013 | 7/11/2013 | 1 | 8/9/2013 | 8/11/2013 | 3 | 9/9/2013 | 9/10/2013 | 1 |
| 10 | 7/11/2013 | 7/11/2013 | , | 8/12/2013 | 8/12/2013 | 1 | 9/10/2013 | 9/11/2013 | 1 |
| 11 | 7/12/2013 | 7/14/2013 | 3 | 8/13/2013 | 8/14/2013 | 1 | 9/11/2013 | 9/12/2013 | 1 |
| 12 | 7/15/2013 | 7/16/2013 | 1 | 8/14/2013 | 8/15/2013 | 1 | 9/12/2013 | 9/13/2013 | 1 |
| 13 | 7/16/2013 | 7/16/2013 | , | 8/15/2013 | 8/15/2013 |  | 9/13/2013 | 9/15/2013 | 3 |
| 14 | 7/17/2013 | 7/17/2013 | 1 | 8/16/2013 | 8/18/2013 | 3 | 9/16/2013 | 9/17/2013 | 1 |
| 15 | 7/18/2013 | 7/18/2013 | 1 | 8/19/2013 | 8/19/2013 | 1 | 9/17/2013 | 9/17/2013 | 1 |
| 16 | 7/19/2013 | 7/21/2013 | 3 | 8/20/2013 | 8/20/2013 | 1 | 9/18/2013 | 9/19/2013 | 1 |
| 17 | 7/22/2013 | 7/22/2013 | , | 8/21/2013 | 8/21/2013 | 1 | 9/19/2013 | 9/20/2013 | 1 |
| 18 | 7/23/2013 | 7/23/2013 | 1 | 8/22/2013 | 8/22/2013 |  | 9/20/2013 | 9/22/2013 | 3 |
| 19 | 7/24/2013 | 7/24/2013 |  | 8/23/2013 | 8/25/2013 | 3 | 9/23/2013 | 9/23/2013 | 1 |
| 20 | 7/25/2013 | 7/25/2013 | 1 | 8/26/2013 | 8/26/2013 | 1 | 9/24/2013 | 9/24/2013 | 1 |
| 21 | 7/26/2013 | 7/28/2013 | 3 | 8/27/2013 | 8/27/2013 | 1 | 9/25/2013 | 9/26/2013 | 1 |
| 22 | 7/29/2013 | 7/29/2013 | 1 | 8/28/2013 | 8/29/2013 | 1 | 9/26/2013 | 9/27/2013 | 1 |
| 23 | 7/30/2013 | 7/30/2013 | 1 | 8/29/2013 | 8/29/2013 | 1 | 9/27/2013 | 9/29/2013 | 3 |
| 24 |  |  |  |  |  |  |  |  |  |
| 31 |  |  |  |  |  |  |  |  |  |
| 32 Total |  |  | 30.5 |  |  | 28.4 |  |  | 32.8 |
| 33 |  |  |  |  |  |  |  |  |  |
| 34 Average |  |  | 1.5 |  |  | 1.4 |  |  | 1.6 |
| 35 |  |  |  |  |  |  |  |  |  |
| 36 | Average- E | ntire Period | 1.5 |  |  |  |  |  |  |

[^4]芭
운

The Dayton Power and Light Company

11/13/2013
11/14/2013 $m$

$\vdots$
$\vdots$
$\vdots$ Nㅡㄹ
 11/19/2013 11/20/2013 ले
ले
त्व 11/24/2013 11/25/2013
 11/26/2013

|  | The Dayton Power and Light Company <br> Case No. 15-1830-EL-AIR <br> PIPP - Billing Lag |  |  |  |  |  | Exhibit ADF-1 Page 5 of 39 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line |  |  |  |  |  |  |  |  |  |  |
| No | October-13 |  |  | November-13 |  |  | December-13 |  |  |  |
| 1 | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag |  |
| 2 |  |  |  |  |  |  |  |  |  |  |
| 3 | 9/30/2013 | 10/1/2013 | 1 | 10/31/2013 | 11/1/2013 | 1 | 11/27/2013 | 12/2/2013 |  | 5 |
| 4 | 10/1/2013 | 10/2/2013 | 1 | 11/1/2013 | 11/3/2013 | 3 | 12/2/2013 | 12/3/2013 |  | 1 |
| 5 | 10/2/2013 | 10/2/2013 | 1 | 11/2/2013 | 11/4/2013 | 2 | 12/3/2013 | 12/4/2013 |  | 1 |
| 6 | 10/3/2013 | 10/4/2013 | 1 | 11/4/2013 | 11/4/2013 | 1 | 12/4/2013 | 12/5/2013 |  | 1 |
| 7 | 10/4/2013 | 10/6/2013 | 3 | 11/5/2013 | 11/5/2013 | 1 | 12/5/2013 | 12/6/2013 |  | 1 |
| 8 | 10/8/2013 | 10/9/2013 | 1 | 11/6/2013 | 11/7/2013 | 1 | 12/6/2013 | 12/9/2013 |  | 3 |
| 9 | 10/9/2013 | 10/10/2013 | 1 | 11/7/2013 | 11/8/2013 | 1 | 12/7/2013 | 12/9/2013 |  | 2 |
| 10 | 10/10/2013 | 10/11/2013 | 1 | 11/8/2013 | 11/10/2013 | 3 | 12/9/2013 | 12/9/2013 |  | 1 |
| 11 | 10/11/2013 | 10/13/2013 | 3 | 11/11/2013 | 11/11/2013 | 1 | 12/10/2013 | 12/10/2013 |  | 1 |
| 12 | 10/14/2013 | 10/14/2013 | 1 | 11/12/2013 | 11/13/2013 | 1 | 12/11/2013 | 12/11/2013 |  | 1 |
| 13 | 10/15/2013 | 10/16/2013 | 1 | 11/13/2013 | 11/14/2013 | 1 | 12/12/2013 | 12/13/2013 |  | 1 |
| 14 | 10/16/2013 | 10/17/2013 | 1 | 11/14/2013 | 11/15/2013 | 1 | 12/13/2013 | 12/15/2013 |  | 3 |
| 15 | 10/17/2013 | 10/17/2013 | 1 | 11/15/2013 | 11/17/2013 | 3 | 12/14/2013 | 12/16/2013 |  | 2 |
| 16 | 10/18/2013 | 10/20/2013 | 3 | 11/18/2013 | 11/18/2013 | 1 | 12/16/2013 | 12/16/2013 |  | 1 |
| 17 | 10/22/2013 | 10/22/2013 | 1 | 11/19/2013 | 11/19/2013 | 1 | 12/17/2013 | 12/17/2013 |  | 1 |
| 18 | 10/23/2013 | 10/23/2013 | 1 | 11/20/2013 | 11/20/2013 | 1 | 12/18/2013 | 12/18/2013 |  | 1 |
| 19 | 10/24/2013 | 10/24/2013 | 1 | 11/21/2013 | 11/22/2013 | 1 | 12/19/2013 | 12/20/2013 |  | 1 |
| 20 | 10/25/2013 | 10/27/2013 | 3 | 11/22/2013 | 11/24/2013 | 3 | 12/20/2013 | 12/22/2013 |  | 3 |
| 21 | 10/28/2013 | 10/28/2013 | 1 | 11/23/2013 | 11/25/2013 | 2 | 12/23/2013 | 12/25/2013 |  | 3 |
| 22 | 10/29/2013 | 10/29/2013 | 1 | 11/25/2013 | 11/26/2013 | 1 | 12/26/2013 | 12/27/2013 |  | 1 |
| 23 | 10/30/2013 | 10/30/2013 | 1 | 11/26/2013 | 11/26/2013 | 1 | 12/27/2013 | 12/29/2013 |  | 3 |
| 24 |  |  |  |  |  |  |  |  |  |  |
| 31 |  |  |  |  |  |  |  |  |  |  |
| 32 Total |  |  | 28.6 |  |  | 31.0 |  |  |  | 37.0 |
| 33 |  |  |  |  |  |  |  |  |  |  |
| 34 Average |  |  | 1.4 |  |  | 1.5 |  |  |  | 1.8 |
| 35 为 |  |  |  |  |  |  |  |  |  |  |
| 36 |  |  |  |  |  |  |  |  |  |  |

> |  |  |  |
| :--- | :--- | ---: |
|  | October-13 |  |
| Read Date | Billing Date | Billing Lag |
|  |  |  |
| $9 / 30 / 2013$ | $10 / 1 / 2013$ | 1 |
| $10 / 1 / 2013$ | $10 / 2 / 2013$ | 1 |
| $10 / 2 / 2013$ | $10 / 2 / 2013$ | 1 |
| $10 / 3 / 2013$ | $10 / 4 / 2013$ | 1 |
| $10 / 4 / 2013$ | $10 / 6 / 2013$ | 3 |
| $10 / 8 / 2013$ | $10 / 9 / 2013$ | 1 |
| $10 / 9 / 2013$ | $10 / 10 / 2013$ | 1 |
| $10 / 10 / 2013$ | $10 / 11 / 2013$ | 1 |
| $10 / 11 / 2013$ | $10 / 13 / 2013$ | 3 |
| $10 / 14 / 2013$ | $10 / 14 / 2013$ | 1 |
| $10 / 15 / 2013$ | $10 / 16 / 2013$ | 1 |
| $10 / 16 / 2013$ | $10 / 17 / 2013$ | 1 |
| $10 / 17 / 2013$ | $10 / 17 / 2013$ | 1 |
| $10 / 18 / 2013$ | $10 / 20 / 2013$ | 3 |
| $10 / 22 / 2013$ | $10 / 22 / 2013$ | 1 |
| $10 / 23 / 2013$ | $10 / 23 / 2013$ | 1 |
| $10 / 24 / 2013$ | $10 / 24 / 2013$ | 1 |
| $10 / 25 / 2013$ | $10 / 27 / 2013$ | 3 |
| $10 / 28 / 2013$ | $10 / 28 / 2013$ | 1 |
| $10 / 29 / 2013$ | $10 / 29 / 2013$ | 1 |
| $10 / 30 / 2013$ | $10 / 30 / 2013$ | 1 | 11/27/2013 12/2/2013

 12/4/2013 12/5/2013 12/5/2013 12/6/2013 12/6/2013 12/9/2013 12/7/2013 12/9/2013 12/9/2013
12/10/2013 12/11/2013
 2/15/2013
 $12 / 16 / 2013$
$12 / 17 / 2013$ 12/18/2013 12/20/2013 M
N
N
N 12/25/2013 12/27/2013 12/29/2013 1 12/11/2013 12/12/2013 2/13/2013 12/16/2013 12/17/2013 12/18/2013 12/19/2013 $12 / 20 / 2013$
$12 / 23 / 2013$ 12/26/2013 12/27/2013 11/7/2013 11/8/2013 11/11/2013 11/13/2013 1/142013 11/15/2013 11/18/2013 11/19/2013 11/20/2013 11/21/2013 11/22/2013 11/23/2013 11/25/2013 11/26/2013
cat



|  | The Dayton Power and Light Company <br> Case No. 15-1830-EL-AIR <br> PIPP - Billing Lag |  |  |  |  |  | Exhibit ADF-1 Page 7 of 39 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line |  |  |  |  |  |  |  |  |  |
| No |  | April-14 |  |  | May-14 |  |  | Junc-14 |  |
| 1 | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag |
| 2 |  |  |  |  |  |  |  |  |  |
| 3 | 3/31/2014 | 4/1/2014 | 1 | 4/30/2014 | 5/1/2014 | 1 | 5/30/2014 | 6/2/2014 | 3 |
| 4 | 4/1/2014 | 4/2/2014 | 1 | 5/1/2014 | 5/2/2014 | 1 | 6/2/2014 | 6/3/2014 | 1 |
| 5 | 4/2/2014 | 4/3/2014 | 1 | 5/2/2014 | 5/4/2014 | 3 | 6/3/2014 | 6/4/2014 | 1 |
| 6 | 4/3/2014 | 4/4/2014 | 1 | 5/5/2014 | 5/6/2014 | 1 | 6/4/2014 | 6/4/2014 | 1 |
| 7 | 4/4/2014 | 4/6/2014 | 3 | 5/6/2014 | 5/7/2014 | 1 | 6/5/2014 | 6/6/2014 | 1 |
| 8 | 4/7/2014 | 4/7/2014 | 1 | 5/7/2014 | 5/8/2014 | 1 | 6/6/2014 | 6/8/2014 | 3 |
| 9 | 4/8/2014 | 4/9/2014 | 1 | 5/8/2014 | 5/9/2014 | 1 | 6/9/2014 | 6/10/2014 | 1 |
| 10 | 4/9/2014 | 4/10/2014 | 1 | 5/9/2014 | 5/11/2014 | 3 | 6/10/2014 | 6/11/2014 | 1 |
| 11 | 4/10/2014 | 4/11/2014 | 1 | 5/12/2014 | 5/12/2014 | 1 | 6/11/2014 | 6/11/2014 | 1 |
| 12 | 4/11/2014 | 4/13/2014 | 3 | 5/13/2014 | 5/14/2014 | 1 | 6/12/2014 | 6/13/2014 | 1 |
| 13 | 4/14/2014 | 4/14/2014 | 1 | 5/1.4/2014 | 5/14/2014 | 1 | 6/13/2014 | 6/15/2014 | 3 |
| 14 | 4/15/2014 | 4/16/2014 | 1 | 5/15/2014 | 5/16/2014 | 1 | 6/16/2014 | 6/16/2014 | 1 |
| 15 | 4/16/2014 | 4/16/2014 | 1 | 5/16/2014 | 5/18/2014 | 3 | 6/17/2014 | 6/18/2014 | 1 |
| 16 | 4/17/2014 | 4/20/2014 | 4 | 5/19/2014 | 5/19/2014 | 1 | 6/18/2014 | 6/19/2014 | 1 |
| 17 | 4/21/2014 | 4/22/2014 | 1 | 5/20/2014 | 5/21/2014 | 1 | 6/19/2014 | 6/20/2014 | 1 |
| 18 | 4/22/2014 | 4/22/2014 | 1 | 5/21/2014 | 5/22/2014 | 1 | 6/20/2014 | 6/22/2014 |  |
| 19 | 4/23/2014 | 4/24/2014 | 1 | 5/22/2014 | 5/23/2014 | 1 | 6/23/2014 | 6/24/2014 | 1 |
| 20 | 4/24/2014 | 4/25/2014 | 1 | 5/23/2014 | 5/26/2014 | 4 | 6/24/2014 | 6/25/2014 | 1 |
| 21 | 4/25/2014 | 4/27/2014 | 3 | 5/27/2014 | 5/28/2014 | 1 | 6/25/2014 | 6/26/2014 | 1 |
| 22 | 4/28/2014 | 4/28/2014 | 1 | 5/28/2014 | 5/29/2014 | 1 | 6/26/2014 | 6/27/2014 | 1 |
| 23 | 4/29/2014 | 4/29/2014 | 1 | 5/29/2014 | 5/30/2014 | 1 | 6/27/2014 | 6/30/2014 | 3 |
| 24 |  |  |  |  |  |  |  |  |  |
| 31 |  |  |  |  |  |  |  |  |  |
| 32 Total |  |  | 30 |  |  | 30 |  |  | 31 |
| 33 |  |  |  |  |  |  |  |  |  |
| 34 Average |  |  | 1.4 |  |  | 1.4 |  |  | 1.5 |
| 35 |  |  |  |  |  |  |  |  |  |
| 36 |  |  |  |  |  |  |  |  |  |


|  | Customer Number | Total |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line <br> No. |  | Lag [a] | Dollar Sales [b] |  | $\begin{gathered} \text { Dollar-Day } \\ \text { Lag } \end{gathered}$ |  |
| 1 | 1167188243 | 15.3 | \$ | 125,467 | \$ | 1,918,373 |
| 2 | 1890781255 | 18.6 | \$ | 132,380 |  | 2,460,057 |
| 3 | 2020966203 | 10.6 | \$ | 534,395 | \$ | 5,684,856 |
| 4 | 3675009784 | 15.2 | \$ | 223,417 | \$ | 3,398,922 |
| 5 | 3701054613 | 17.4 | \$ | 151,311 | \$ | 2,638,916 |
| 6 | 4195046351 | 18.4 | \$ | 94,759 | \$ | 1,743,106 |
| 7 | 4592910942 | 10.3 | \$ | 93,820 | \$ | 963,396 |
| 8 | 4650262965 | 17.5 | \$ | 466,299 | \$ | 8,136,915 |
| 9 | 4793094117 | 12.0 | \$ | 124,098 | \$ | 1,493,396 |
| 10 | 5365118354 | 11.3 | \$ | 112,513 | \$ | 1,265,773 |
| 11 | 5742697023 | 15.6 | \$ | 94,082 | \$ | 1,466,113 |
| 12 | 6100100530 | 9.0 | \$ | 111,886 | \$ | 1,010,261 |
| 13 | 6216130120 | 15.6 | \$ | 277,612 | \$ | 4,320,210 |
| 14 | 6634883119 | 12.1 | \$ | 1,975,960 | \$ | 24,000,522 |
| 15 | 6910139510 | 19.8 | \$ | 249,651 | \$ | 4,954,333 |
| 16 | 6946833161 | 20.7 | \$ | 276,565 | \$ | 5,722,167 |
| 17 | 7530831121 | 17.6 | \$ | 258,187 | \$ | 4,542,606 |
| 18 | 7695812024 | 7.5 | \$ | 416,713 | \$ | 3,113,271 |
| 19 | 8249213429 | 15.6 | \$ | 93,732 | \$ | 1,466,852 |
| 20 | 9123715512 | 11.2 | \$ | 219,326 | \$ | 2,452,798 |
|  | Total |  | \$ | 6,032,174 | \$ | 82,752,843 |
| Weighted Average Lag Days |  |  |  |  |  | 13.7 |

[a] Average Lag was calculated for the customer for each bill during the 12 month test period.
[b] Total revenue for the selected customer was calculated from billing system outputs.

Note: A total of 20 summary bill customers were selected for testing to arrive at $51 \%$ coverage.
[a] Calculated systematic billing lag


$11 / 2 / 2013$
$11 / 5 / 2013$
$11 / 5 / 2013$
$11 / 6 / 2013$
$11 / 8 / 2013$
$1 / 10 / 2013$
$1 / 11 / 2013$
$1 / 12 / 2013$
$1 / 13 / 2013$
$1 / 15 / 2013$
$1 / 17 / 2013$
$1 / 18 / 2013$
$1 / 19 / 2013$
$1 / 20 / 2013$
$1 / 22 / 2013$
$1 / 24 / 2013$
$1 / 25 / 2013$
$1 / 27 / 2013$
$1 / 27 / 2013$
$12 / 1 / 2013$
$12 / 2 / 2013$ M
$\stackrel{3}{\mathrm{~N}}$
N $11 / 1 / 2013$
$11 / 2 / 2013$ 11/4/2013 $11 / 5 / 2013$
$11 / 6 / 2013$ 11/7/2013 $11 / 8 / 2013$
$11 / 11 / 2013$ 11/12/2013 $11 / 13 / 2013$
$11 / 14 / 2013$ $\frac{m}{c}$
$\stackrel{N}{n}$
$\vdots$ n m
in
잉
$=$ $11 / 20 / 2013$ 11/21/2013 11/23/2013
 11/26/2013

|  | October-13 |  |
| :--- | :--- | :--- |
| Read Date | Billing Date | Billing Lag | 2

2
2
2
4
4
3
2
2
4
4
2
2
2
4
4
2
2
2
4
4
2 $9 / 30 / 2013$
$10 / 1 / 2013$
$10 / 2 / 2013$
$10 / 3 / 2013$
$10 / 4 / 2013$
$10 / 8 / 2013$
$10 / 9 / 2013$
$10 / 10 / 2013$
$10 / 11 / 2013$
$10 / 14 / 2013$
$10 / 15 / 2013$
$10 / 16 / 2013$
$10 / 17 / 2013$
$10 / 18 / 2013$
$10 / 22 / 2013$
$10 / 23 / 2013$
$10 / 24 / 2013$
$10 / 25 / 2013$
$10 / 28 / 2013$
$10 / 29 / 2013$
$10 / 30 / 2013$
$3 / 4 / 2014$
$3 / 5 / 2014$
$3 / 7 / 2014$
$3 / 9 / 2014$
$3 / 10 / 2014$
$3 / 11 / 2014$
$3 / 12 / 2014$
$3 / 14 / 2014$
$3 / 16 / 2014$
$3 / 17 / 2014$
$3 / 18 / 2014$
$3 / 19 / 2014$
$3 / 21 / 2014$
$3 / 23 / 2014$
$3 / 24 / 2014$
$3 / 25 / 2014$
$3 / 26 / 2014$
$3 / 28 / 2014$
$3 / 30 / 2014$
$3 / 31 / 2014$
$4 / 1 / 2014$






Narati-1
miname
 1/6/2014 5
Read Date

|  |  |
| :---: | :---: |
|  | Billing Lag |
|  |  |
| 4 | 5 |
| 4 | 3 |
| 4 | 3 |
| 4 | 5 |
| 4 | 5 |
| 4 | 3 |
| 4 | 3 |
| 4 | 5 |
| 4 | 5 |
| 4 | 5 |
| 4 | 3 |
| 4 | 3 |
| 4 | 4 |
| 4 | 5 |
| 4 | 5 |
| 4 | 3 |
| 4 | 3 |
| 4 | 5 |
| 4 | 5 |

$\mid$ $1 / 5 / 2014$
$1 / 6 / 2014$
$1 / 7 / 2014$
$1 / 9 / 2014$
$1 / 10 / 2014$
$1 / 11 / 2014$
$1 / 13 / 2014$
$1 / 14 / 2014$
$1 / 15 / 2014$
$1 / 17 / 2014$
$1 / 19 / 2014$
$1 / 20 / 2014$
$1 / 21 / 2014$
$1 / 23 / 2014$
$1 / 24 / 2014$
$1 / 26 / 2014$
$1 / 28 / 2014$
$1 / 29 / 2014$
$1 / 29 / 2014$
$2 / 2 / 2014$
$2 / 3 / 2014$ $12 / 30 / 2013$
$1 / 2 / 2014$
$1 / 3 / 2014$
$1 / 6 / 2014$
$1 / 7 / 2014$
$1 / 8 / 2014$
$1 / 9 / 2014$
$1 / 10 / 2014$
$1 / 13 / 2014$
$1 / 14 / 2014$
$1 / 15 / 2014$
$1 / 16 / 2014$
$1 / 17 / 2014$
$1 / 20 / 2014$
$1 / 21 / 2014$
$1 / 22 / 2014$
$1 / 23 / 2014$
$1 / 24 / 2014$
$1 / 27 / 2014$
$1 / 29 / 2014$
$1 / 30 / 2014$
Read Date $\quad$ Jilling Date 1 $9 \quad \rightarrow 10 Z / \mathcal{S} / \mathrm{I}$ Read Date Billing Date Billing Lag



|  | The Dayton Power and Light Company <br> Case No. 15-1830-EL-AIR <br> Bill Ready - Billing Lag |  |  |  |  |  | Exhibit ADF-1 Page 12 of 39 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No |  | April-1t |  |  | Nay-14 |  |  | Junc-14 |  |
| 1 | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag |
| 2 |  |  |  |  |  |  |  |  |  |
| 3 | 3/31/2014 | 4/2/2014 | 3 | 4/30/2014 | 5/4/2014 | 5 | 5/30/2014 | 6/3/2014 | 5 |
|  | 4/1/2014 | 4/4/2014 | 3 | 5/1/2014 | 5/5/2014 | 5 | 6/2/2014 | 6/5/2014 | 3 |
| 5 | 4/2/2014 | 4/6/2014 | 4 | 5/2/2014 | 5/6/2014 | 5 | 6/3/2014 | 6/6/2014 | 3 |
| 6 | 4/3/2014 | 4/7/2014 | 5 | 5/5/2014 | 5/7/2014 | 3 | 6/4/2014 | 6/8/2014 | 5 |
| 7 | 4/4/2014 | 4/8/2014 | 5 | 5/6/2014 | 5/8/2014 | 3 | 6/5/2014 | 6/9/2014 | 5 |
| 8 | 4/7/2014 | 4/9/2014 | 3 | 5/7/2014 | 5/11/2014 | 5 | 6/6/2014 | 6/10/2014 | 5 |
| 9 | 4/8/2014 | 4/1/12014 | 3 | 5/8/2014 | 5/12/2014 | 5 | 6/9/2014 | 6/11/2014 | 3 |
| 10 | 4/9/2014 | 4/13/2014 | 5 | 5/9/2014 | 5/13/2014 | 5 | 6/10/2014 | 6/13/2014 | 3 |
| 11 | 4/10/2014 | 4/14/2014 | 5 | 5/12/2014 | 5/14/2014 | 3 | 6/11/2014 | 6/15/2014 | 5 |
| 12 | 4/11/2014 | 4/15/2014 | 5 | 5/13/2014 | 5/16/2014 | 3 | 6/12/2014 | 6/16/2014 | 5 |
| 13 | 4/14/2014 | 4/17/2014 | 3 | 5/14/2014 | 5/18/2014 | 5 | 6/13/2014 | 6/17/2014 | 5 |
| 14 | 4/15/2014 | 4/20/2014 | 5 | 5/15/2014 | 5/19/2014 | 5 | 6/16/2014 | 6/18/2014 | 3 |
| 15 | 4/16/2014 | 4/21/2014 | 6 | 5/16/2014 | 5/20/2014 | 5 | 6/17/2014 | 6/20/2014 | 3 |
| 16 | 4/17/2014 | 4/22/2014 | 6 | 5/19/2014 | 5/21/2014 | 3 | 6/18/2014 | 6/22/2014 | 5 |
| 17 | 4/21/2014 | 4/23/2014 | 3 | 5/20/2014 | 5/23/2014 | 3 | 6/19/2014 | 6/23/2014 | 5 |
| 18 | 4/22/2014 | 4/25/2014 | 3 | 5/21/2014 | 5/26/2014 | 5 | 6/20/2014 | 6/24/2014 | 5 |
| 19 | 4/23/2014 | 4/27/2014 | 5 | 5/22/2014 | 5/27/2014 | 6 | 6/23/2014 | 6/25/2014 | 3 |
| 20 | 4/24/2014 | 4/28/2014 | 5 | 5/23/2014 | 5/28/2014 | 6 | 6/24/2014 | 6/27/2014 | 3 |
| 21 | 4/25/2014 | 4/29/2014 | 5 | 5/27/2014 | 5/30/2014 | 3 | 6/25/2014 | 6/29/2014 |  |
| 22 | 4/28/2014 | 4/30/2014 | 3 | 5/28/2014 | 6/1/2014 | 5 | 6/26/2014 | 6/30/2014 | 5 |
| 23 | 4/29/2014 | 5/2/2014 | 3 | 5/29/2014 | 6/2/2014 | 5 | 6/27/2014 | 7/1/2014 | 5 |
| 24 |  |  |  |  |  |  |  |  |  |
| 47 |  |  |  |  |  |  |  |  |  |
| 48 Total |  |  | 86.3428 |  |  | 90.6 |  |  | 86.6 |
| 49 |  |  |  |  |  |  |  |  |  |
| 50 Average |  |  | 4.1 |  |  | 4.3 |  |  | 4.1 |
| 51 | $l a g$ |  |  |  |  |  |  |  |  |
| 52 |  |  |  |  |  |  |  |  |  |


|  | The Dayton Power and Light CompanyCase No. 15-1830-EL-AIRTraditional (All Other Customers)- Billing Lag |  |  |  |  |  |  | Exhibit ADF-1 Page 13 of 39 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line |  |  |  |  |  |  |  |  |  |
| $\begin{gathered} \text { No } \\ 1 \end{gathered}$ | July-13 |  |  | August-13 |  |  | September-13 |  |  |
|  | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag |
| 2 |  |  |  |  |  |  |  |  |  |
| 3 | 6/28/2013 | 7/1/2013 | 3 | 7/31/2013 | 8/1/2013 | 1 | 8/30/2013 | 9/3/2013 | 4 |
| 4 | 7/1/2013 | 7/2/2013 | 1 | 8/1/2013 | 8/2/2013 | 1 | 9/3/2013 | 9/4/2013 | 1 |
| 5 | 7/2/2013 | 7/3/2013 | 1 | 8/2/2013 | 8/4/2013 | 3 | 9/4/2013 | 9/5/2013 | 1 |
| 6 | 7/3/2013 | 7/5/2013 | 2 | 8/6/2013 | 8/7/2013 | 1 | 9/5/2013 | 9/6/2013 | 1 |
| 7 | 7/5/2013 | 7/7/2013 | 3 | 8/7/2013 | 8/8/2013 | 1 | 9/6/2013 | 9/9/2013 | 3 |
| 8 | 7/9/2013 | 7/10/2013 | 1 | 8/8/2013 | 8/9/2013 | 1 | 9/7/2013 | 9/9/2013 | 2 |
| 9 | 7/10/2013 | 7/11/2013 | 1 | 8/9/2013 | 8/11/2013 | 3 | 9/9/2013 | 9/10/2013 | 1 |
| 10 | 7/11/2013 | 7/12/2013 | 1 | 8/12/2013 | 8/13/2013 | 1 | 9/10/2013 | 9/11/2013 | 1 |
| 11 | 7/12/2013 | 7/15/2013 | 3 | 8/13/2013 | 8/14/2013 | 1 | 9/11/2013 | 9/12/2013 | 1 |
| 12 | 7/15/2013 | 7/16/2013 | 1 | 8/14/2013 | 8/15/2013 | 1 | 9/12/2013 | 9/13/2013 | 1 |
| 13 | 7/16/2013 | 7/17/2013 | 1 | 8/15/2013 | 8/16/2013 | 1 | 9/13/2013 | 9/15/2013 | 3 |
| 14 | 7/17/2013 | 7/18/2013 | 1 | 8/16/2013 | 8/18/2013 | 3 | 9/16/2013 | 9/17/2013 | 1 |
| 15 | 7/18/2013 | 7/19/2013 | 1 | 8/19/2013 | 8/20/2013 | 1 | 9/17/2013 | 9/18/2013 | 1 |
| 16 | 7/19/2013 | 7/21/2013 | 3 | 8/20/2013 | 8/21/2013 | 1 | 9/18/2013 | 9/19/2013 | 1 |
| 17 | 7/22/2013 | 7/23/2013 | 1 | 8/21/2013 | 8/22/2013 | 1 | 9/19/2013 | 9/20/2013 | 1 |
| 18 | 7/23/2013 | 7/24/2013 | 1 | 8/22/2013 | 8/23/2013 | 1 | 9/20/2013 | 9/23/2013 | 3 |
| 19 | 7/24/2013 | 7/25/2013 | 1 | 8/23/2013 | 8/25/2013 | 3 | 9/23/2013 | 9/24/2013 | 1 |
| 20 | 7/25/2013 | 7/26/2013 | 1 | 8/26/2013 | 8/27/2013 | 1 | 9/24/2013 | 9/25/2013 | 1 |
| 21 | 7/26/2013 | 7/28/2013 | 3 | 8/27/2013 | 8/28/2013 | 1 | 9/25/2013 | 9/26/2013 | 1 |
| 22 | 7/29/2013 | 7/30/2013 | 1 | 8/28/2013 | 8/29/2013 | 1 | 9/26/2013 | 9/27/2013 | 1 |
| 23 | 7/30/2013 | 7/31/2013 | 1 | 8/29/2013 | 8/30/2013 | 1 | 9/27/2013 | 9/29/2013 | 3 |
| 24 |  |  |  |  |  |  |  |  |  |
| 31 |  |  |  |  |  |  |  |  |  |
| 32 Total |  |  | 32.8 |  |  | 29.9 |  |  | 34.4 |
| $33$ |  |  |  |  |  |  |  |  |  |
| 34 Average |  |  | 1.6 |  |  | 1.4 |  |  | 1.6 |
| 35 |  |  |  |  |  |  |  |  |  |
| 36 | Average- Entire Period |  | 1.6 [a] |  |  |  |  |  |  |

[^5]
Calculated systematic billing lag

[a] Calculated systematic billing lag
Calculated systematic billing lag
The Dayton Power and Light Company Case No. 15-1830-EL-AIR
Revenue Lead - Group
Calculated systematic billing lag

| Line No |  | Junc-14 |  |  | July-14 |  |  | August-14 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag |
| 2 |  |  |  |  |  |  |  |  |  |  |
| 3 |  | 5/30/2014 | 6/2/2014 | 3 | 6/30/2014 | 7/1/2014 | 1 | 7/31/2014 | 8/1/2014 | 1 |
| 4 |  | 6/2/2014 | 6/3/2014 | 1 | 7/1/2014 | 7/2/2014 | 1 | 8/1/2014 | 8/3/2014 | 3 |
| 5 |  | 6/3/2014 | 6/4/2014 | 1 | 7/2/2014 | 7/3/2014 | 1 | 8/4/2014 | 8/5/2014 | 1 |
| 6 |  | 6/4/2014 | 6/4/2014 | 1 | 7/3/2014 | 7/6/2014 | 4 | 8/5/2014 | 8/6/2014 | 1 |
| 7 |  | 6/5/2014 | 6/6/2014 | 1 | 7/7/2014 | 7/7/2014 | 1 | 8/6/2014 | 8/6/2014 | 1 |
| 8 |  | 6/6/2014 | 6/8/2014 | 3 | 7/8/2014 | 7/9/2014 | 1 | 8/7/2014 | 8/8/2014 | 1 |
| 9 |  | 6/9/2014 | 6/10/2014 | 1 | 7/9/2014 | 7/10/2014 | 1 | 8/8/2014 | 8/10/2014 | 3 |
| 10 |  | 6/10/2014 | 6/11/2014 | 1 | 7/10/2014 | 7/11/2014 | 1 | 8/11/2014 | 8/11/2014 | 1 |
| 11 |  | 6/11/2014 | 6/11/2014 | 1 | 7/11/2014 | 7/13/2014 | 3 | 8/12/2014 | 8/13/2014 | 1 |
| 12 |  | 6/12/2014 | 6/13/2014 | 1 | 7/14/2014 | 7/14/2014 | 1 | 8/13/2014 | 8/13/2014 | 1 |
| 13 |  | 6/13/2014 | 6/15/2014 | 3 | 7/15/2014 | 7/16/2014 | 1 | 8/14/2014 | 8/15/2014 | 1 |
| 14 |  | 6/16/2014 | 6/16/2014 | 1 | 7/16/2014 | 7/17/2014 | 1 | 8/15/2014 | 8/17/2014 | 3 |
| 15 |  | 6/17/2014 | 6/18/2014 | 1 | 7/17/2014 | 7/18/2014 | 1 | 8/18/2014 | 8/18/2014 | 1 |
| 16 |  | 6/18/2014 | 6/19/2014 | 1 | 7/18/2014 | 7/20/2014 | 3 | 8/19/2014 | 8/20/2014 | 1 |
| 17 |  | 6/19/2014 | 6/20/2014 | 1 | 7/22/2014 | 7/23/2014 | 1 | 8/20/2014 | 8/20/2014 | 1 |
| 18 |  | 6/20/2014 | 6/22/2014 | 3 | 7/23/2014 | 7/24/2014 | 1 | 8/21/2014 | 8/22/2014 | 1 |
| 19 |  | 6/23/2014 | 6/24/2014 | 1 | 7/24/2014 | 7/25/2014 | 1 | 8/22/2014 | 8/24/2014 | 3 |
| 20 |  | 6/24/2014 | 6/25/2014 | 1 | 7/25/2014 | 7/27/2014 | 3 | 8/25/2014 | 8/25/2014 | 1 |
| 21 |  | 6/25/2014 | 6/26/2014 | 1 | 7/28/2014 | 7/29/2014 | 1 | 8/26/2014 | 8/26/2014 | 1 |
| 22 |  | 6/26/2014 | 6/27/2014 | 1 | 7/29/2014 | 7/29/2014 | 1 | 8/27/2014 | 8/27/2014 | 1 |
| 23 |  | 6/27/2014 | 6/30/2014 | 3 | 7/30/2014 | 7/30/2014 | 1 | 8/28/2014 | 8/28/2014 | 1 |
| 24 |  |  |  |  |  |  |  |  |  |  |
| 47 |  |  |  |  |  |  |  |  |  |  |
| 48 | Total |  |  | 31.3 |  |  | 30.4 |  |  | 28.9 |
| 49 |  |  |  |  |  |  |  |  |  |  |
| 50 | Average |  |  | 1.5 |  |  | 1.4 |  |  | 1.4 |
| 51 |  |  |  |  |  |  |  |  |  |  |
| 52 |  | Average- Entire P | Period | 1.5 |  |  |  |  |  |  |

[a] Calculated systematic billing lag

|  | The Dayton Power and Light Company Case No. 15-1830-EL-AIR PIPP - Billing Lag Update |  |  |  |  |  |  | Exhibit ADF-1 Page 19 of 39 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No |  |  | Seprember-44 |  |  | Octoler-14 |  |  | Rover | miver-1t |  |
| 1 |  | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date | Billing Date |  | Billing Lag |
| 2 |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  | 8/29/2014 | 9/2/2014 | 4 | 9/30/2014 | 101/2014 | 1 | 10/31/2014 |  | 11/3/2014 | 3 |
| 4 |  | 9/2/2014 | 9/3/2014 | 1 | 10/1/2014 | 10/2/2014 | 1 | 11/1/2014 |  | 11/3/2014 | 2 |
| 5 |  | 9/3/2014 | 9/3/2014 | 1 | 10/2/2014 | 10/3/2014 | 1 | 11/3/2014 |  | 11/3/2014 | 1 |
| 6 |  | 9/4/2014 | 9/5/2014 | 1 | 10/3/2014 | 10/5/2014 | 3 | 11/4/2014 |  | 11/4/2014 | 1 |
| 7 |  | 9/5/2014 | 977/2014 | 3 | 10/6/2014 | 10/6/2014 | 1 | 11/5/2014 |  | 11/5/2014 |  |
| 8 |  | 9/8/2014 | 999/2014 | 1 | 10/7/2014 | 10/8/2014 | 1 | 11/6/2014 |  | 11/72014 | 1 |
| 9 |  | 99912014 | 9/10/2014 | 1 | 10/8/2014 | 10/9/2014 | 1 | 11/7/2014 |  | 11/9/2014 | 3 |
| 10 |  | 9/10/2014 | 9/10/2014 | 1 | 10/9/2014 | 10/10/2014 | 1 | 11/8/2014 |  | 11/10/2014 | 2 |
| 11 |  | 9/11/2014 | 9/12/2014 | 1 | 10/10/2014 | 10/12/2014 | 3 | 11/10/2014 |  | 11/10/2014 | 1 |
| 12 |  | 9/12/2014 | 9/14/2014 | 3 | 10/13/2014 | 10/14/2014 | 1 | 11/11/2014 |  | 11/11/2014 | 1 |
| 13 |  | 9/15/2014 | 9/16/2014 | 1 | 10/14/2014 | 10/15/2014 | 1 | 11/12/2014 |  | 11/13/2014 | 1 |
| 14 |  | 9/16/2014 | 9/17/2014 | 1 | 10/15/2014 | 10/15/2014 | 1 | 11/13/2014 |  | 11/14/2014 | 1 |
| 15 |  | 9/17/2014 | 9/17/2014 | 1 | 10/16/2014 | 10/17/2014 | , | 11/14/2014 |  | 11/16/2014 | 3 |
| 16 |  | 9/18/2014 | 9/19/2014 | 1 | 10/20/2014 | 10/21/2014 | , | 11/17/2014 |  | 11/17/2014 | 1 |
| 17 |  | 9/19/2014 | 9/21/2014 | 3 | 10/21/2014 | 10/22/2014 | 1 | 11/18/2014 |  | 11/18/2014 | , |
| 18 |  | 9/22/2014 | 9/2/2014 | 1 | 10/22/2014 | 10/23/2014 | 1 | 11/19/2014 |  | 11/19/2014 | 1 |
| 19 |  | 9/23/2014 | 9/24/2014 | 1 | 10/23/2014 | 10/24/2014 | 1 | 11/20/2014 |  | 11/20/2014 | 1 |
| 20 |  | 9/24/2014 | 9/25/2014 | 1 | 10/27/2014 | 10/28/2014 | 1 | 11/21/2014 |  | 11/23/2014 | 3 |
| 21 |  | 9/25/2014 | 9/26/2014 | 1 | 10/28/2014 | 10/29/2014 | 1 | 11/22/2014 |  | 11/24/2014 | 2 |
| 22 |  | 9/26/2014 | 9/28/2014 | 3 | 10/29/2014 | 10/29/2014 | 1 | 11/24/2014 |  | 11/24/2014 | , |
| 23 |  | 9/29/2014 | 9/29/2014 | 1 | 10/30/2014 | 10/30/2014 | 1 | 11/25/2014 |  | 11/25/2014 | , |
| 24 |  |  |  |  |  |  |  |  |  |  |  |
| 47 |  |  |  |  |  |  |  |  |  |  |  |
| 48 | Total |  |  | 32.0 |  |  | 24.9 |  |  |  | 30.7 |
| 49 |  |  |  |  |  |  |  |  |  |  |  |
| 50 | Average |  |  | 1.5 |  |  | 1.2 |  |  |  | 1.5 |
| 51 |  |  |  |  |  |  |  |  |  |  |  |
| 52 |  |  |  |  |  |  |  |  |  |  |  |

[a] Calculated systematic billing lag

|  |  | The Dayton Power and Light Company Case No. 15-1830-EL-AIR PIPP - Billing Lag Update |  |  |  |  |  | Exhibit ADF-1 Page 20 of 39 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No |  |  | December-14 |  |  | January-15 |  |  |  |  |
| 1 2 |  | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date |  | Billing Lag |
| 3 |  | 11/26/2014 | 12/1/2014 | 5 | 12/30/2014 | 1/2/2015 | 3 | 1/30/2015 | 2/2/2015 | 3 |
| 4 |  | 12/1/2014 | 12/2/2014 | 1 | 1/2/2015 | 1/4/2015 | 3 | 2/2/2015 | 2/2/2015 | 1 |
| 5 |  | 12/2/2014 | 12/3/2014 | 1 | 1/5/2015 | 1/6/2015 | 1 | 2/3/2015 | 2/4/2015 | 1 |
| 6 |  | 12/3/2014 | 12/3/2014 | 1 | 1/6/2015 | 1/6/2015 | 1 | 2/4/2015 | 2/4/2015 | 1 |
| 7 |  | 12/4/2014 | 12/4/2014 | 1 | 1/7/2015 | 1/8/2015 | 1 | 2/5/2015 | 2/6/2015 | 1 |
| 8 |  | 12/5/2014 | 12/7/2014 | 3 | 1/8/2015 | 1/8/2015 | 1 | 2/6/2015 | 2/8/2015 | 3 |
| 9 |  | 12/8/2014 | 12/8/2014 | 1 | 1/9/2015 | 1/11/2015 | 3 | 2/9/2015 | 2/10/2015 | 1 |
| 10 |  | 12/9/2014 | 12/10/2014 | 1 | 1/12/2015 | 1/13/2015 | 1 | 2/10/2015 | 2/11/2015 | 1 |
| 11 |  | 12/10/2014 | 12/11/2014 | 1 | 1/13/2015 | 1/13/2015 | 1 | 2/11/2015 | 2/12/2015 | 1 |
| 12 |  | 12/11/2014 | 12/12/2014 | 1 | 1/14/2015 | 1/14/2015 | 1 | 2/12/2015 | 2/13/2015 | 1 |
| 13 |  | 12/12/2014 | 12/14/2014 | 3 | 1/15/2015 | 1/16/2015 | 1 | 2/13/2015 | 2/15/2015 | 3 |
| 14 |  | 12/13/2014 | 12/15/2014 | 2 | 1/16/2015 | 1/18/2015 | 3 | 2/16/2015 | 2/17/2015 | 1 |
| 15 |  | 12/15/2014 | 12/15/2014 | 1 | 1/17/2015 | 1/19/2015 | 2 | 2/17/2015 | 2/18/2015 | 1 |
| 16 |  | 12/16/2014 | 12/17/2014 | 1 | 1/19/2015 | 1/20/2015 | 1 | 2/18/2015 | 2/19/2015 | 1 |
| 17 |  | 12/17/2014 | 12/18/2014 | 1 | 1/20/2015 | 1/21/2015 | I | 2/19/2015 | 2/20/2015 | 1 |
| 18 |  | 12/18/2014 | 12/19/2014 | 1 | 1/21/2015 | 1/22/2015 | 1 | 2/20/2015 | 2/22/2015 | 3 |
| 19 |  | 12/19/2014 | 12/21/2014 | 3 | 1/22/2015 | 1/23/2015 | 1 | 2/21/2015 | 2/23/2015 | 2 |
| 20 |  | 12/22/2014 | 12/23/2014 | 1 | 1/23/2015 | 1/25/2015 | 3 | 2/23/2015 | 2/23/2015 | 1 |
| 21 |  | 12/23/2014 | 12/26/2014 | 3 | 1/26/2015 | 1/27/2015 | 1 | 2/24/2015 | 2/24/2015 | 1 |
| 22 |  | 12/26/2014 | 12/28/2014 | 3 | 1/27/2015 | 1/28/2015 | 1 | 2/25/2015 | 2/25/2015 | 1 |
| 23 |  | 12/29/2014 | 12/29/2014 | 1 | 1/29/2015 | 1/30/2015 | 1 | 2/26/2015 | 2/26/2015 | 1 |
| 24 |  |  |  |  |  |  |  |  |  |  |
| 47 |  |  |  |  |  |  |  |  |  |  |
| 48 | Total |  |  | 36.4 |  |  | 32.2 |  |  | 30.15 |
| 49 |  | 6533754.24 |  |  |  |  |  |  |  |  |
| 50 | Average |  |  | 1.7 |  |  | 1.5 |  |  | 1.4 |
| 51 |  |  |  |  |  |  |  |  |  |  |
| 52 |  |  |  |  |  |  |  |  |  |  |

Calculated systematic billing lag


| $\begin{gathered} \text { Line } \\ \text { No. } \\ \hline \end{gathered}$ | Customer Number | Total |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Lag [a] | Dollar Sales [b] |  | $\begin{gathered} \text { Dollar-Day } \\ \text { Lag } \\ \hline \end{gathered}$ |  |
| 1 | 1167188243 | 15.0 | \$ | 132,475 | \$ | 1,991,512 |
| 2 | 1890781255 | 21.2 | \$ | 66,841 | \$ | 1,414,797 |
| 3 | 2020966203 | 11.1 | \$ | 873,101 | \$ | 9,728,039 |
| 4 | 3675009784 | 15.1 | \$ | 281,530 | \$ | 4,261,113 |
| 5 | 3701054613 | 17.3 | \$ | 173,618 | \$ | 3,012,264 |
| 6 | 4195046351 | 18.5 | \$ | 99,459 | \$ | 1,837,159 |
| 7 | 4592910942 | 10.3 | \$ | 73,771 | \$ | 760,247 |
| 8 | 4650262965 | 17.5 | \$ | 638,885 | \$ | 11,169,838 |
| 9 | 4793094117 | 12.2 | \$ | 148,915 | \$ | 1,812,517 |
| 10 | 5365118354 | 11.0 | \$ | 143,458 | \$ | 1,585,113 |
| 11 | 5742697023 | 10.6 | \$ | 91,311 | \$ | 970,178 |
| 12 | 6100100530 | 9.0 | \$ | 111,114 | \$ | 1,003,110 |
| 13 | 6216130120 | 15.5 | \$ | 354,233 | \$ | 5,480,190 |
| 14 | 6634883119 | 12.8 | \$ | 2,758,207 | \$ | 35,283,049 |
| 15 | 6910139510 | 20.5 | \$ | 269,360 | \$ | 5,513,461 |
| 16 | 6946833161 | 20.2 | \$ | 299,072 | \$ | 6,040,419 |
| 17 | 7530831121 | 17.5 | \$ | 287,770 | \$ | 5,033,343 |
| 18 | 7695812024 | 7.2 | \$ | 617,088 | \$ | 4,458,463 |
| 19 | 8249213429 | 15.3 | \$ | 104,630 | \$ | 1,598,791 |
| 20 | 9123715512 | 10.8 | \$ | 289,501 | \$ | 3,131,438 |
|  | Total |  | \$ | 7,814,337 | \$ | 106,085,042 |

Weighted Average Lag Days
[a] Average Lag was calculated for the customer for each bill during the 12 month test period.
[b] Total revenue for the selected customer was calculated from billing system outputs.
Note: A total of 20 summary bill customers were selected for testing to arrive at $54 \%$ coverage.
[a] Calculated systematic billing lag
The Dayton Power and Light Company
Exhibit ADF-1 Page 23 of 39

|  | Bill Ready - Billing Lag Update |  |  |  |  |  | Exhibit ADF-1 Page 24 of 39 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No | September-14 |  |  | Oetober-14 |  |  | November-14 |  |  |
| 1 | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date |  | Billing Lag |
| 2 |  |  |  |  |  |  |  |  |  |
| 3 | 8/29/2014 | 9/3/2014 | 6 | 9/30/2014 | 10/2/2014 | 3 | 10/31/2014 | 11/4/2014 | 5 |
| 4 | 9/2/2014 | 9/4/2014 | 3 | 10/1/2014 | 10/5/2014 | 4 | 11/1/2014 | 11/4/2014 | 4 |
| 5 | 9/3/2014 | 9/7/2014 | 4 | 10/2/2014 | 10/6/2014 | 5 | 11/3/2014 | 11/5/2014 | 3 |
| 6 | 9/4/2014 | 9/8/2014 | 5 | 10/3/2014 | 10/7/2014 | 5 | 11/4/2014 | 11/6/2014 | 3 |
| 7 | 9/5/2014 | 9/9/2014 | 5 | 10/6/2014 | 10/8/2014 | 3 | 11/5/2014 | [1/9/2014 | 4 |
| 8 | 9/8/2014 | 9/10/2014 | 3 | 10/7/2014 | 10/10/2014 | 3 | 11/6/2014 | 11/10/2014 | 5 |
| 9 | 9/9/2014 | 9/12/2014 | 3 | 10/8/2014 | 10/12/2014 | 4 | 11/7/2014 | 11/11/2014 | 5 |
| 10 | 9/10/2014 | 9/14/2014 | 5 | 10/9/2014 | 10/13/2014 | 5 | 11/8/2014 | 11/11/2014 | 4 |
| 11 | 9/11/2014 | 9/15/2014 | 5 | 10/10/2014 | 10/14/2014 | 5 | 11/10/2014 | 11/12/2014 | 3 |
| 12 | 9/12/2014 | 9/16/2014 | 5 | 10/13/2014 | 10/15/2014 | 3 | 11/11/2014 | 11/13/2014 | 3 |
| 13 | 9/15/2014 | 9/17/2014 | 3 | 10/14/2014 | 10/17/2014 | 3 | 11/12/2014 | 11/16/2014 | 4 |
| 14 | 9/16/2014 | 9/18/2014 | 3 | 10/15/2014 | 10/19/2014 | 4 | 11/13/2014 | 11/17/2014 | 5 |
| 15 | 9/17/2014 | 9/21/2014 | 4 | 10/16/2014 | 10/20/2014 | 5 | 11/14/2014 | 11/18/2014 | 5 |
| 16 | 9/18/2014 | 9/22/2014 | 5 | 10/20/2014 | 10/22/2014 | 3 | 11/17/2014 | 11/19/2014 | 3 |
| 17 | 9/19/2014 | 9/23/2014 | 5 | 10/21/2014 | 10/23/2014 | 3 | 11/18/2014 | 11/20/2014 | 3 |
| 18 | 9/22/2014 | 9/24/2014 | 3 | 10/22/2014 | 10/26/2014 | 4 | 11/19/2014 | 11/23/2014 | 4 |
| 19 | 9/23/2014 | 9/25/2014 | 3 | 10/23/2014 | 10/27/2014 | 5 | 11/20/2014 | 11/24/2014 | 5 |
| 20 | 9/24/2014 | 9/28/2014 | 4 | 10/27/2014 | 10/29/2014 | 3 | 11/21/2014 | 11/25/2014 | 5 |
| 21 | 9/25/2014 | 9/29/2014 | 5 | 10/28/2014 | 10/31/2014 | 3 | 11/22/2014 | 11/26/2014 | 4 |
| 22 | 9/26/2014 | 9/30/2014 | 5 | 10/29/2014 | 11/2/2014 | 4 | 11/24/2014 | 11/29/2014 | 6 |
| 23 | 9/29/2014 | 10/1/2014 | 3 | 10/30/2014 | 11/3/2014 | 5 | 11/25/2014 | 12/1/2014 | 7 |
| 24 |  |  |  |  |  |  |  |  |  |
| 47 |  |  |  |  |  |  |  |  |  |
| 48 Total |  |  | 85.3 |  |  | 81.9 |  |  | 88.0 |
| 49 |  |  |  |  |  |  |  |  |  |
| 50 Average |  |  | 4.1 |  |  | 3.9 |  |  | 4.2 |
| 51 |  |  |  |  |  |  |  |  |  |
| 52 |  |  |  |  |  |  |  |  |  |

[a] Calculated systematic billing lag


|  |  | The Dayton Power and Light Company Case No. 15-1830-EL-AIR Bill Ready - Billing Lag Update |  |  |  |  |  |  | Exhibit ADF-1 Page 26 of 39 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No |  |  | March-15 |  |  | April-15 |  |  |  |  |
| 1 |  | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date |  | Billing Lag |
| 2 |  |  |  |  |  |  |  |  |  |  |
| 3 |  | 2/27/2015 | 3/3/2015 | 5 | 3/31/2015 | 4/4/2015 | 5 | 4/30/2015 | 5/4/2015 | 5 |
| 4 |  | 3/2/2015 | 3/4/2015 | 3 | 4/1/2015 | 4/6/2015 | 6 | 5/1/2015 | 5/5/2015 | 5 |
| 5 |  | 3/3/2015 | 3/5/2015 | 3 | 4/2/2015 | 4/7/2015 | 6 | 5/4/2015 | 5/6/2015 | 3 |
| 6 |  | 3/4/2015 | 3/7/2015 | 4 | 4/6/2015 | 4/8/2015 | 3 | 5/5/2015 | 5/7/2015 | 3 |
| 7 |  | 3/5/2015 | 3/9/2015 | 5 | 4/7/2015 | 4/10/2015 | 3 | 5/6/2015 | 5/9/2015 | 4 |
| 8 |  | 3/9/2015 | 3/11/2015 | 3 | 4/8/2015 | 4/12/2015 | 4 | 5/7/2015 | 5/11/2015 | 5 |
| 9 |  | 3/10/2015 | 3/12/2015 | 3 | 4/9/2015 | 4/13/2015 | 5 | 5/8/2015 | 5/12/2015 | 5 |
| 10 |  | 3/11/2015 | 3/15/2015 | 4 | 4/10/2015 | 4/14/2015 | 5 | 5/11/2015 | 5/13/2015 | 3 |
| 11 |  | 3/12/2015 | 3/16/2015 | 5 | 4/13/2015 | 4/16/2015 | 3 | 5/12/2015 | 5/14/2015 | 3 |
| 12 |  | 3/13/2015 | 3/17/2015 | 5 | 4/14/2015 | 4/17/2015 | 3 | 5/13/2015 | 5/17/2015 | 4 |
| 13 |  | 3/16/2015 | 3/18/2015 | 3 | 4/15/2015 | 4/19/2015 | 4 | 5/14/2015 | 5/18/2015 | 5 |
| 14 |  | 3/17/2015 | 3/19/2015 | 3 | 4/16/2015 | 4/20/2015 | 5 | 5/15/2015 | 5/19/2015 | 5 |
| 15 |  | 3/18/2015 | 3/22/2015 | 4 | 4/17/2015 | 4/21/2015 | 5 | 5/16/2015 | 5/19/2015 | 4 |
| 16 |  | 3/19/2015 | 3/23/2015 | 5 | 4/20/2015 | 4/22/2015 | 3 | 5/18/2015 | 5/20/2015 | 3 |
| 17 |  | 3/20/2015 | 3/24/2015 | 5 | 4/21/2015 | 4/23/2015 | 3 | 5/19/2015 | 5/22/2015 | 3 |
| 18 |  | 3/23/2015 | 3/25/2015 | 3 | 4/22/2015 | 4/26/2015 | 4 | 5/20/2015 | 5/25/2015 | 5 |
| 19 |  | 3/24/2015 | 3/26/2015 | 3 | 4/23/2015 | 4/27/2015 | 5 | 5/21/2015 | 5/26/2015 | 6 |
| 20 |  | 3/25/2015 | 3/29/2015 | 4 | 4/24/2015 | 4/28/2015 | 5 | 5/22/2015 | 5/27/2015 | 6 |
| 21 |  | 3/26/2015 | 3/30/2015 | 5 | 4/27/2015 | 4/29/2015 | 3 | 5/26/2015 | 5/28/2015 | 3 |
| 22 |  | 3/27/2015 | 3/31/2015 | 5 | 4/28/2015 | 4/30/2015 | 3 | 5/27/2015 | 5/28/2015 | 2 |
| 23 |  | 3/30/2015 | 4/1/2015 | 3 | 4/29/2015 | 5/3/2015 | 4 | 5/28/2015 | 5/29/2015 | 1 |
| 24 |  |  |  |  |  |  |  |  |  |  |
| 47 |  |  |  |  |  |  |  |  |  |  |
| 48 | Total |  |  | 79.9087 |  |  | 85.9 |  |  | 79.3 |
| 49 |  |  |  |  |  |  |  |  |  |  |
| 50 | Average |  |  | 3.8 |  |  | 4.1 |  |  | 3.8 |
| 51 |  |  |  |  |  |  |  |  |  |  |
| 52 |  |  |  |  |  |  |  |  |  |  |

[^6][a] Calculated systematic billing lag

|  |  | The Dayton Power and Light CompanyCase No. 15-1830-EL-AIRTraditional (All Other Customers)- Billing Lag Update |  |  |  |  |  | Exhibit ADF-1 Page 27 of 39 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No |  | June-14 |  |  | July-14 |  |  | August-14 |  |  |
| 1 |  | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag |
| 2 |  |  |  |  |  |  |  |  |  |  |
| 3 |  | 5/30/2014 | 6/2/2014 | 3 | 6/30/2014 | 7/1/2014 | , | 7/31/2014 | 8/1/2014 | 1 |
| 4 |  | 6/2/2014 | 6/3/2014 | 1 | 7/1/2014 | 7/2/2014 |  | 8/1/2014 | 8/3/2014 | 3 |
| 5 |  | 6/3/2014 | 6/4/2014 | 1 | 7/2/2014 | 7/3/2014 |  | 8/4/2014 | 8/5/2014 | 1 |
| 6 |  | 6/4/2014 | 6/5/2014 | 1 | 7/3/2014 | 7/7/2014 | 4 | 8/5/2014 | 8/6/2014 | 1 |
| 7 |  | 6/5/2014 | 6/6/2014 | 1 | 7/7/2014 | 7/8/2014 | 1 | 8/6/2014 | 8/7/2014 | 1 |
| 8 |  | 6/6/2014 | 6/9/2014 | 3 | 7/8/2014 | 7/9/2014 | 1 | 8/7/2014 | 8/8/2014 | 1 |
| 9 |  | 6/9/2014 | 6/10/2014 | 1 | 7/9/2014 | 7/10/2014 | 2 | 8/8/2014 | 8/10/2014 | 3 |
| 10 |  | 6/10/2014 | 6/11/2014 | 1 | 7/10/2014 | 7/11/2014 | 1 | 8/11/2014 | 8/12/2014 | 1 |
| 11 |  | 6/11/2014 | 6/12/2014 | 1 | 7/11/2014 | 7/14/2014 |  | 8/12/2014 | 8/13/2014 | 1 |
| 12 |  | 6/12/2014 | 6/13/2014 | 1 | 7/14/2014 | 7/15/2014 | 1 | 8/13/2014 | 8/14/2014 | 1 |
| 13 |  | 6/13/2014 | 6/16/2014 | 3 | 7/15/2014 | 7/16/2014 | 1 | 8/14/2014 | 8/15/2014 | 1 |
| 14 |  | 6/16/2014 | 6/17/2014 | 1 | 7/16/2014 | 7/17/2014 | 1 | 8/15/2014 | 8/17/2014 | 3 |
| 15 |  | 6/17/2014 | 6/18/2014 | 1 | 7/17/2014 | 7/18/2014 | 1 | 8/18/2014 | 8/19/2014 | 1 |
| 16 |  | 6/18/2014 | 6/19/2014 | 1 | 7/18/2014 | 7/21/2014 | 3 | 8/19/2014 | 8/20/2014 | 1 |
| 17 |  | 6/19/2014 | 6/20/2014 | 1 | 7/22/2014 | 7/23/2014 | 1 | 8/20/2014 | 8/21/2014 | 1 |
| 18 |  | 6/20/2014 | 6/23/2014 | 3 | 7/23/2014 | 7/24/2014 | 1 | 8/21/2014 | 8/22/2014 | 1 |
| 19 |  | 6/23/2014 | 6/24/2014 | 1 | 7/24/2014 | 7/25/2014 | , | 8/22/2014 | 8/24/2014 | 3 |
| 20 |  | 6/24/2014 | 6/25/2014 | 1 | 7/25/2014 | 7/28/2014 | 3 | 8/25/2014 | 8/26/2014 | 1 |
| 21 |  | 6/25/2014 | 6/26/2014 | 1 | 7/28/2014 | 7/29/2014 | 1 | 8/26/2014 | 8/27/2014 | 1 |
| 22 |  | 6/26/2014 | 6/27/2014 | 1 | 7/29/2014 | 7/30/2014 | 1 | 8/27/2014 | 8/28/2014 | 1 |
| 23 |  | 6/27/2014 | 6/30/2014 | 3 | 7/30/2014 | 7/31/2014 | 1 | 8/28/2014 | 8/29/2014 | 1 |
| 24 |  |  |  |  |  |  |  |  |  |  |
| 47 |  |  |  |  |  |  |  |  |  |  |
| 48 | Total |  |  | 34.6 |  |  | 33.9 |  |  | 30.9 |
| 49 |  |  |  |  |  |  |  |  |  |  |
| 50 | Average |  |  | 1.6 |  |  | 1.6 |  |  | 1.5 |
| 51 |  |  |  |  |  |  |  |  |  |  |
| 52 |  | Average- Entic | tire Period | 1.5 |  |  |  |  |  |  |


[a] Calculated systematic billing lag

|  |  | The Dayton Power and Light CompanyCase No. 15-1830-EL-AIRTraditional (All Other Customers)- Billing Lag Update |  |  |  |  |  | Exhibit ADF-1 Page 29 of 39 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No |  |  | December-14 |  |  | January-15 |  |  | February-15 |  |
| 1 2 |  | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag |
| 3 |  | 11/26/2014 | 12/1/2014 | 5 | 12/30/2014 | 1/2/2015 | 4 | 1/30/2015 | 2/2/2015 | 3 |
| 4 |  | 12/1/2014 | 12/2/2014 | 1 | 1/2/2015 | 1/4/2015 | 3 | 2/2/2015 | 2/3/2015 | 1 |
| 5 |  | 12/2/2014 | 12/3/2014 | 1 | 1/5/2015 | 1/6/2015 | 1 | 2/3/2015 | 2/4/2015 | 1 |
| 6 |  | 12/3/2014 | 12/4/2014 | 1 | 1/6/2015 | 1/7/2015 | 1 | 2/4/2015 | 2/5/2015 | 1 |
| 7 |  | 12/4/2014 | 12/5/2014 | 1 | 1/7/2015 | 1/8/2015 | 1 | 2/5/2015 | 2/6/2015 | 1 |
| 8 |  | 12/5/2014 | 12/7/2014 | 3 | 1/8/2015 | 1/9/2015 | 1 | 2/6/2015 | 2/8/2015 | 3 |
| 9 |  | 12/8/2014 | 12/9/2014 | 1 | 1/9/2015 | 1/11/2015 | 3 | 2/9/2015 | 2/10/2015 | 1 |
| 10 |  | 12/9/2014 | 12/10/2014 | 1 | 1/12/2015 | 1/13/2015 | 1 | 2/10/2015 | 2/11/2015 | 1 |
| 11 |  | 12/10/2014 | 12/11/2014 | 1 | 1/13/2015 | 1/14/2015 | 1 | 2/11/2015 | 2/12/2015 | I |
| 12 |  | 12/11/2014 | 12/12/2014 | 1 | 1/14/2015 | 1/15/2015 | 1 | 2/12/2015 | 2/13/2015 | 1 |
| 13 |  | 12/12/2014 | 12/14/2014 | 3 | 1/15/2015 | 1/16/2015 | 1 | 2/13/2015 | 2/15/2015 | 3 |
| 14 |  | 12/13/2014 | 12/15/2014 | 2 | 1/16/2015 | 1/19/2015 | 3 | 2/16/2015 | 2/17/2015 | 1 |
| 15 |  | 12/15/2014 | 12/16/2014 | 1 | 1/17/2015 | 1/19/2015 | 2 | 2/17/2015 | 2/18/2015 | 1 |
| 16 |  | 12/16/2014 | 12/17/2014 | 1 | 1/19/2015 | 1/20/2015 | 1 | 2/18/2015 | 2/18/2015 | 1 |
| 17 |  | 12/17/2014 | 12/18/2014 | 1 | 1/20/2015 | 1/21/2015 | 1 | 2/19/2015 | 2/20/2015 | 1 |
| 18 |  | 12/18/2014 | 12/19/2014 | 1 | 1/21/2015 | 1/22/2015 | 1 | 2/20/2015 | 2/22/2015 | 3 |
| 19 |  | 12/19/2014 | 12/22/2014 | 3 | 1/22/2015 | 1/23/2015 | 1 | 2/21/2015 | 2/23/2015 | 2 |
| 20 |  | 12/22/2014 | 12/23/2014 | 1 | 1/23/2015 | 1/26/2015 | 3 | 2/23/2015 | 2/23/2015 | 1 |
| 21 |  | 12/23/2014 | 12/26/2014 | 3 | 1/26/2015 | 1/27/2015 | 1 | 2/24/2015 | 2/24/2015 | 1 |
| 22 |  | 12/26/2014 | 12/29/2014 | 3 | 1/27/2015 | 1/28/2015 | 1 | 2/25/2015 | 2/26/2015 | 1 |
| 23 |  | 12/29/2014 | 12/30/2014 | 1 | 1/29/2015 | 1/30/2015 | 1 | 2/26/2015 | 2/27/2015 | 1 |
| 24 |  |  |  |  |  |  |  |  |  |  |
| 47 |  |  |  |  |  |  |  |  |  |  |
| 48 | Total |  |  | 38.5 |  |  | 34.2 |  |  | 30.96 |
| 49 |  |  |  |  |  |  |  |  |  |  |
| 50 | Average |  |  | 1.8 |  |  | 1.6 |  |  | 1.5 |
| 51 |  |  |  |  |  |  |  |  |  |  |
| 52 |  |  |  |  |  |  |  |  |  |  |

[a] Calculated systematic billing lag
Line $\mathrm{No}_{0}$
$\begin{array}{rr} & \\ 4 / 30 / 2015 & 5 / 1 / 2015 \\ 5 / 1 / 2015 & 5 / 3 / 2015 \\ 5 / 4 / 2015 & 5 / 4 / 2015 \\ 5 / 5 / 2015 & 5 / 6 / 2015 \\ 5 / 6 / 2015 & 5 / 7 / 2015 \\ 5 / 7 / 2015 & 5 / 8 / 2015 \\ 5 / 8 / 2015 & 5 / 10 / 2015 \\ 5 / 11 / 2015 & 5 / 12 / 2015 \\ 5 / 12 / 2015 & 5 / 13 / 2015 \\ 5 / 13 / 2015 & 5 / 14 / 2015 \\ 5 / 14 / 2015 & 5 / 15 / 2015 \\ 5 / 15 / 2015 & 5 / 17 / 2015 \\ 5 / 16 / 2015 & 5 / 18 / 2015 \\ 5 / 18 / 2015 & 5 / 18 / 2015 \\ 5 / 19 / 2015 & 5 / 20 / 2015 \\ 5 / 20 / 2015 & 5 / 21 / 2015 \\ 5 / 21 / 2015 & 5 / 22 / 2015 \\ 5 / 22 / 2015 & 5 / 25 / 2015 \\ 5 / 26 / 2015 & 5 / 27 / 2015 \\ 5 / 27 / 2015 & 5 / 27 / 2015 \\ 5 / 28 / 2015 & 5 / 28 / 2015\end{array}$

$$
\left|\begin{array}{ll}
\frac{n}{m} & \cdots
\end{array}\right|
$$



|  |  | Traditional (All Other Customers)-Billing Lag Update |  |  |  |  |  | Exhibit ADF-1 Page 30 of 39 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No |  | March-15 |  |  | April-15 |  |  | May-15 |  |  |
| 1 |  | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag |
|  |  |  |  |  |  |  |  |  |  |  |
| 3 |  | 2/27/2015 | 3/2/2015 | 3 | 3/31/2015 | 4/1/2015 | 1 | 4/30/2015 | 5/1/2015 | 1 |
| 4 |  | 3/2/2015 | 3/3/2015 | 1 | 4/1/2015 | 4/2/2015 | 1 | 5/1/2015 | 5/3/2015 | 3 |
| 5 |  | 3/3/2015 | 3/4/2015 | 1 | 4/2/2015 | 4/5/2015 | 4 | 5/4/2015 | 5/4/2015 | 1 |
| 6 |  | 3/4/2015 | 3/5/2015 | 1 | 4/6/2015 | 4/7/2015 | 1 | 5/5/2015 | 5/6/2015 | 1 |
| 7 |  | 3/5/2015 | 3/6/2015 | 1 | 4/7/2015 | 4/8/2015 | 1 | 5/6/2015 | 5/7/2015 | 1 |
| 8 |  | 3/9/2015 | 3/10/2015 | 1 | 4/8/2015 | 4/9/2015 | 1 | 5/7/2015 | 5/8/2015 | 1 |
| 9 |  | 3/10/2015 | 3/11/2015 | 1 | 4/9/2015 | 4/10/2015 | 1 | 5/8/2015 | 5/10/2015 | 3 |
| 10 |  | 3/11/2015 | 3/12/2015 | 1 | 4/10/2015 | 4/12/2015 | 3 | 5/11/2015 | 5/12/2015 | 1 |
| 11 |  | 3/12/2015 | 3/13/2015 | 1 | 4/13/2015 | 4/14/2015 | 1 | 5/12/2015 | 5/13/2015 | 1 |
| 12 |  | 3/13/2015 | 3/16/2015 | 3 | 4/14/2015 | 4/15/2015 | 1 | 5/13/2015 | 5/14/2015 | 1 |
| 13 |  | 3/16/2015 | 3/17/2015 | 1 | 4/15/2015 | 4/16/2015 | 1 | 5/14/2015 | 5/15/2015 | 1 |
| 14 |  | 3/17/2015 | 3/18/2015 | 1 | 4/16/2015 | 4/17/2015 | 1 | 5/15/2015 | 5/17/2015 | 3 |
| 15 |  | 3/18/2015 | 3/19/2015 | 1 | 4/17/2015 | 4/20/2015 | 3 | 5/16/2015 | 5/18/2015 | 2 |
| 16 |  | 3/19/2015 | 3/20/2015 | 1 | 4/20/2015 | 4/21/2015 | 1 | 5/18/2015 | 5/18/2015 | 1 |
| 17 |  | 3/20/2015 | 3/22/2015 | 3 | 4/21/2015 | 4/22/2015 | 1 | 5/19/2015 | 5/20/2015 | 1 |
| 18 |  | 3/23/2015 | 3/24/2015 | 1 | 4/22/2015 | 4/23/2015 | 1 | 5/20/2015 | 5/21/2015 | 1 |
| 19 |  | 3/24/2015 | 3/25/2015 | 1 | 4/23/2015 | 4/24/2015 | 1 | 5/21/2015 | 5/22/2015 | 1 |
| 20 |  | 3/25/2015 | 3/26/2015 | 1 | 4/24/2015 | 4/26/2015 | 3 | 5/22/2015 | 5/25/2015 | 4 |
| 21 |  | 3/26/2015 | 3/27/2015 | 1 | 4/27/2015 | 4/28/2015 | 1 | 5/26/2015 | 5/27/2015 | 1 |
| 22 |  | 3/27/2015 | 3/29/2015 | 3 | 4/28/2015 | 4/29/2015 | 1 | 5/27/2015 | 5/27/2015 | 1 |
| 23 |  | 3/30/2015 | 3/31/2015 | 1 | 4/29/2015 | 4/30/2015 | 1 | 5/28/2015 | 5/28/2015 | 1 |
| 24 |  |  |  |  |  |  |  |  |  |  |
| 47 |  |  |  |  |  |  |  |  |  |  |
| 48 | Total |  |  | 30.75 |  |  | 31.4 |  |  | 31.2 |
| 49 |  |  |  |  |  |  |  |  |  |  |
| 50 | Average |  |  | 1.5 |  |  | 1.5 |  |  | 1.5 |
| 51 |  |  |  |  |  |  |  |  |  |  |
| 52 |  |  |  |  |  |  |  |  |  |  |


|  |  | Traditional (All Other Customers)-Billing Lag Update |  |  |  |  |  | Exhibit ADF-1 Page 30 of 39 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No |  | March-15 |  |  | April-15 |  |  | May-15 |  |  |
| 1 |  | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag | Read Date | Billing Date | Billing Lag |
|  |  |  |  |  |  |  |  |  |  |  |
| 3 |  | 2/27/2015 | 3/2/2015 | 3 | 3/31/2015 | 4/1/2015 | 1 | 4/30/2015 | 5/1/2015 | 1 |
| 4 |  | 3/2/2015 | 3/3/2015 | 1 | 4/1/2015 | 4/2/2015 | 1 | 5/1/2015 | 5/3/2015 | 3 |
| 5 |  | 3/3/2015 | 3/4/2015 | 1 | 4/2/2015 | 4/5/2015 | 4 | 5/4/2015 | 5/4/2015 | 1 |
| 6 |  | 3/4/2015 | 3/5/2015 | 1 | 4/6/2015 | 4/7/2015 | 1 | 5/5/2015 | 5/6/2015 | 1 |
| 7 |  | 3/5/2015 | 3/6/2015 | 1 | 4/7/2015 | 4/8/2015 | 1 | 5/6/2015 | 5/7/2015 | 1 |
| 8 |  | 3/9/2015 | 3/10/2015 | 1 | 4/8/2015 | 4/9/2015 | 1 | 5/7/2015 | 5/8/2015 | 1 |
| 9 |  | 3/10/2015 | 3/11/2015 | 1 | 4/9/2015 | 4/10/2015 | 1 | 5/8/2015 | 5/10/2015 | 3 |
| 10 |  | 3/11/2015 | 3/12/2015 | 1 | 4/10/2015 | 4/12/2015 | 3 | 5/11/2015 | 5/12/2015 | 1 |
| 11 |  | 3/12/2015 | 3/13/2015 | 1 | 4/13/2015 | 4/14/2015 | 1 | 5/12/2015 | 5/13/2015 | 1 |
| 12 |  | 3/13/2015 | 3/16/2015 | 3 | 4/14/2015 | 4/15/2015 | 1 | 5/13/2015 | 5/14/2015 | 1 |
| 13 |  | 3/16/2015 | 3/17/2015 | 1 | 4/15/2015 | 4/16/2015 | 1 | 5/14/2015 | 5/15/2015 | 1 |
| 14 |  | 3/17/2015 | 3/18/2015 | 1 | 4/16/2015 | 4/17/2015 | 1 | 5/15/2015 | 5/17/2015 | 3 |
| 15 |  | 3/18/2015 | 3/19/2015 | 1 | 4/17/2015 | 4/20/2015 | 3 | 5/16/2015 | 5/18/2015 | 2 |
| 16 |  | 3/19/2015 | 3/20/2015 | 1 | 4/20/2015 | 4/21/2015 | 1 | 5/18/2015 | 5/18/2015 | 1 |
| 17 |  | 3/20/2015 | 3/22/2015 | 3 | 4/21/2015 | 4/22/2015 | 1 | 5/19/2015 | 5/20/2015 | 1 |
| 18 |  | 3/23/2015 | 3/24/2015 | 1 | 4/22/2015 | 4/23/2015 | 1 | 5/20/2015 | 5/21/2015 | 1 |
| 19 |  | 3/24/2015 | 3/25/2015 | 1 | 4/23/2015 | 4/24/2015 | 1 | 5/21/2015 | 5/22/2015 | 1 |
| 20 |  | 3/25/2015 | 3/26/2015 | 1 | 4/24/2015 | 4/26/2015 | 3 | 5/22/2015 | 5/25/2015 | 4 |
| 21 |  | 3/26/2015 | 3/27/2015 | 1 | 4/27/2015 | 4/28/2015 | 1 | 5/26/2015 | 5/27/2015 | 1 |
| 22 |  | 3/27/2015 | 3/29/2015 | 3 | 4/28/2015 | 4/29/2015 | 1 | 5/27/2015 | 5/27/2015 | 1 |
| 23 |  | 3/30/2015 | 3/31/2015 | 1 | 4/29/2015 | 4/30/2015 | 1 | 5/28/2015 | 5/28/2015 | 1 |
| 24 |  |  |  |  |  |  |  |  |  |  |
| 47 |  |  |  |  |  |  |  |  |  |  |
| 48 | Total |  |  | 30.75 |  |  | 31.4 |  |  | 31.2 |
| 49 |  |  |  |  |  |  |  |  |  |  |
| 50 | Average |  |  | 1.5 |  |  | 1.5 |  |  | 1.5 |
| 51 |  |  |  |  |  |  |  |  |  |  |
| 52 |  |  |  |  |  |  |  |  |  |  |

The Dayton Power and Light Company
The Dayton Power and Light Company
Case No. 15-1830-EL-AIR
Revenue Lead-Group - Updat

| Revenue Lead - Group - Updated |  |  |  |  |  |  |  |  |  |  |  | Exhibit ADF-1 Page 31 of 39 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No | Month | PIPP (Installment) Revenue [a] |  | ODSA Revenue [b] | Summary Bill Revenue [c] | Bill Ready Revenue [d] |  | Traditional Customer Revenue [e] |  |  | Total | Monthly Revenue [Revenue Lead] |  | Difference |  |
| 1 | Jun-14 | \$ | 2,436,917 | 3,336,075 | 1,202,188 | \$ | 17,373,927 | \$ | 48,575,985 | \$ | 72,925,092.79 | \$ | 71,605,456 | \$ | 1,319,636.73 |
| 2 | Jul-14 | \$ | 2,441,119 | 4,203,872 | 1,291,999 | \$ | 19,137,889 | \$ | 54,557,788 | \$ | 81,632,666.30 | \$ | 80,364,154 | \$ | 1,268,512.03 |
| 3 | Aug-14 | \$ | 2,452,073 | 3,706,142 | 1,342,451 | \$ | 18,061,534 | \$ | 52,301,995 | \$ | 77,864,194.96 | \$ | 76,476,329 | \$ | 1,387,866.15 |
| 4 | Sep-14 | \$ | 2,462,063 | 3,451,165 | 1,305,283 | \$ | 19,055,715 | \$ | 50,845,767 | \$ | 77,119,993.37 | \$ | 76,454,470 | \$ | 665,523.16 |
| 5 | Oct-14 | \$ | 2,466,290 | 2,320,276 | 1,228,057 | \$ | 15,630,402 | \$ | 41,839,445 | \$ | 63,484,468.96 | \$ | 62,729,823 | \$ | 754,646.39 |
| 6 | Nov-14 | \$ | 2,467,759 | 2,926,344 | 1,172,678 | \$ | 15,697,941 | \$ | 43,424,213 | \$ | 65,688,934.77 | \$ | 65,065,632 | \$ | .623,302.74 |
| 7 | Dec-14 | \$ | 2,495,935 | 4,274,388 | 1,112,103 | \$ | 17,448,620 | \$ | 47,199,457 | \$ | 72,530,502.32 | \$ | 71,933,260 | \$ | 597,242.05 |
| 8 | Jan-15 | \$ | 2,508,146 | 5,003,407 | 1,164,720 | \$ | 19,482,738 | \$ | 52,730,977 | \$ | 80,889,987.35 | \$ | 80,981,669 | \$ | (91,682.12) |
| 9 | Feb-15 | \$ | 2,542,801 | 5,041,383 | 1,202,525 | \$ | 18,338,025 | \$ | 52,852,454 | \$ | 79,977,188.46 | \$ | 79,996,254 | \$ | $(19,065.84)$ |
| 10 | Mar-15 | \$ | 2,577,496 | 5,032,473 | 1,186,883 | \$ | 18,358,009 | \$ | 52,842,602 | \$ | 79,997,463.14 | \$ | 79,931,999 | \$ | 65,463.99 |
| 11 | Apr-15 | \$ | 2,600,347 | 3,195,332 | 1,190,451 | \$ | 15,141,559 | \$ | 44,106,686 | \$ | 66,234,375.55 | \$ | 65,967,011 | \$ | 267,364.08 |
| 12 | May-15 | \$ | 2,619,207 | 2,014,220 | 1,136,195 | \$ | 12,259,841 | \$ | 40,003,108 | \$ | 58,032,570.93 | \$ | 58,892,038 | \$ | (859,467.33) |
| 13 | Total | \$ | 30,070,152 | \$ 44,505,077 | \$ 14,535,532 | \$ | 205,986,202 | \$ | 581,280,476 | \$ | 876,377,439 | \$ | 870,398,097 | \$ | 5,979,342 |
| 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 | Average Daily Revenue Balance | \$ | 82,384 | \$ 121,932 | \$ 39,823 | \$ | 564,346 | \$ | 1,592,549 | \$ | 2,401,034 | \$ | 2,384,652 | \$ | 16,382 |
| [a] | The PIPP Instalment Revenue balances for each month were obtained from the monthly revenue queries from the subledger. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| [b] | The ODSA revenues related to the state subsidized portion of the PIPP customers. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| [c] | The Summary Bill Revenue balances for each month were obtained from the monthly revenue queries from the subledger. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| [d] | The Bill Ready Revenue balances for each month were obtained from the monthly revenue queries from the subledger. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| [e] | The Traditional/All Other Revenue balances for each month were obtained from the monthly revenue queries from the subledger. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| [f] | The difference in the revenue reconciliation is due to the adjustments that are recorded in the subledger (which the queries are based on) after the revenue month has been closed, that are not in revenue balances in datamart. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


|  |  | The Dayton Power and Light Company <br> Case No. 15-1830-EL-AIR <br> Weighted Average Collection Lag |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

[a] Represents the average daily revenue from Bill Ready, Summary Bill \& all other customers per Page 17.

|  |  | The Dayton Power and Light Company <br> Case No. 15-1830-EL-AIR <br> Weighted Average Collection Lag - Update | Exhibit ADF-1 Page 33 of 39 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

[a] Represents the average daily revenue from Bill Ready, Summary Bill \& all other customers per Page 31.


| The Dayton Power and Light Company Case No. 15-1830-EL-AIR <br> Collection Lag- All Customers (Except PIPP) |  |  |  | Exhibit ADF-1 Page 35 of 39 |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Line } \\ & \text { No. } \end{aligned}$ | Description |  |  |  |
| 1 | Average Accounts Receivable | \$ | 52,495,252 |  |
| 2 |  |  |  |  |
| 3 | Average Daily Billings | \$ | 2,104,142 |  |
| 4 |  |  |  |  |
| 5 | Average Lag (Avg A/R/Avg Daily Billings) |  | 24.9 |  |

Exhibit ADF-1 Page 36 of 39


|  | The Dayton Power and Light CompanyCase No. 15-1830-EL-AIRCollection Lag-All Customers (Except PIPP) - Update |  |  | Exhibit ADF-1 Page 38 of 39 |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Line } \\ & \text { No } \end{aligned}$ | Description |  |  |  |
| $\begin{aligned} & 1 \\ & 2 \end{aligned}$ | Average Accounts Receivable | \$ | 56,936,359 |  |
| 3 | Average Daily Billings | \$ | 2,196,718 |  |
| 5 | Average Lag (Avg A/R/Avg Daily Billings) |  | 25.9 |  |

The Dayton Power and Light Company Case No. 15-1830-EL-AIR
A/R Lead - Group - Update $\quad$ Exhibit ADF-1 Page 39 of 39

| Month |
| ---: |
| Jun-14 |
| Jul-14 |
| Aug-14 |
| Sep-14 |
| Oct-14 |
| Nov-14 |
| Dec-14 |
| Jan-15 |
| Feb-15 |
| Mar-15 |
| Apr-15 |
| May-15 |

                        Total
    
[a] Meters are read on a monthly cycle, which to determine the average time during the month the customers meter is read, the average midpoint of all the months during the year is used. ( 365 days/ $/ 12$ months/2midpoint of the month).
[b] As the fluctuation is minor, the original calculation from 7/1/13-6/30/14 appears appropriate to use for the purposes of this lead/lag study.


[^7]| Line <br> No. |  |  | The Dayton Power and Light Company Case No. 15-1830-EL-AIR <br> Billing Lag- ODSA - Update |  |  | Exhibit ADF-2 Page 3 of 8 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Month |  | ODSA Bill [a] | ODSA Bill Date [e] | Last day of Month | Bill Lag |  | Dollar Lag |
| 1 |  |  |  |  |  |  |  |  |
| 2 | Jun-14 | \$ | 3,336,075 | 7/9/2014 | 6/30/2014 | 9.0 | \$ | 30,024,672.57 |
| 3 | Jul-14 | \$ | 4,203,872 | 8/11/2014 | 7/31/2014 | 11.0 | \$ | 46,242,591.89 |
| 4 | Aug-14 | \$ | 3,706,142 | 9/8/2014 | 8/31/2014 | 8.0 | \$ | 29,649,139.76 |
| 5 | Sep-14 | \$ | 3,451,165 | 10/8/2014 | 9/30/2014 | 8.0 | \$ | 27,609,322.72 |
| 6 | Oct-14 | \$ | 2,320,276 | 11/10/2014 | 10/31/2014 | 10.0 | \$ | 23,202,757.90 |
| 7 | Nov-14 | \$ | 2,926,344 | 12/8/2014 | 11/30/2014 | 8.0 | \$ | 23,410,750.16 |
| 8 | Dec-14 | \$ | 4,274,388 | 1/14/2015 | 12/31/2014 | 14.0 | \$ | 59,841,425.14 |
| 9 | Jan-15 | \$ | 5,003,407 | 2/9/2015 | 1/31/2015 | 9.0 | \$ | 45,030,660.12 |
| 10 | Feb-15 | \$ | 5,041,383 | 3/11/2015 | 2/28/2015 | 11.0 | \$ | 55,455,218.17 |
| 11 | Mar-15 | \$ | 5,032,473 | 4/13/2015 | 3/31/2015 | 13.0 | \$ | 65,422,145.88 |
| 12 | Apr-15 | \$ | 3,195,332 | 5/14/2015 | 4/30/2015 | 14.0 | \$ | 44,734,652.62 |
| 13 | May-15 | \$ | 2,014,220 | 6/11/2015 | 5/31/2015 | 11.0 | \$ | 22,156,419.23 |
| 14 |  |  |  |  |  |  |  |  |
| 15 | Total | \$ | 44,505,077 |  |  |  | \$ | 472,779,756 |
| 16 |  |  |  |  |  |  |  |  |
| 17 | [b] Weighted Average |  | 10.62 |  |  |  |  |  |
| 18 |  |  |  |  |  |  |  |  |
| 19 | [c] Monthly Midpoint |  | 15.20 |  |  |  |  |  |
| 20 |  |  |  |  |  |  |  |  |
| 21 | [d] Total Billing Lag |  | 25.82 |  |  |  |  |  |

[^8]
[a] Payment amount for each month was obtained from management.
aced to the cliant's bank statements.
[d] Weighted average of the lags between the date the ODSA was billed and the date the payment was collected by DP\&L
 [b] Date of the invoice for the ODSA was obtained from management.
[c] Date of the payment made from the ODSA, as traced to the client's bank statements.
[d] Weighted average of the lags between the date the ODSA was billed and the date the payment was collected by DP\&L.
The Dayton Power and Light Company
Case No. 15-1830-EL-AR
USF Rider Remitance Lead

|  |  | The Dayton Power and Light Company <br> Case No. 15-1830-EL-AIR <br> USF Remittance Lead |  |  |  | Exhibit ADF-2 Page 7 of 8 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line <br> No. | Month |  | Payment to ODSA [a] | Month-End [b] | $\begin{gathered} \text { Payment Clear } \\ \text { Date [c] } \end{gathered}$ | Collection Lag | Dollar Lag |
| 1 |  |  |  |  |  |  |  |
| 2 | Jul-13 | \$ | 5,096,041 | 7/31/2013 | 8/15/2013 | 15.0 | \$ 76,440,620.40 |
| 3 | Aug-13 | \$ | 4,998,658 | 8/31/2013 | 9/16/2013 | 16.0 | \$ 79,978,526.40 |
| 4 | Sep-13 | \$ | 4,779,681 | 9/30/2013 | 10/15/2013 | 15.0 | \$ 71,695,215.60 |
| 5 | Oct-13 | \$ | 4,159,253 | 10/31/2013 | 11/15/2013 | 15.0 | \$ 62,388,795.00 |
| 6 | Nov-13 | \$ | 4,046,587 | 11/30/2013 | 12/17/2013 | 17.0 | \$ 68,791,971.69 |
| 7 | Dec-13 | \$ | 4,636,406 | 12/31/2013 | 1/15/2014 | 15.0 | \$ 69,546,086.55 |
| 8 | Jan-14 | \$ | 4,899,293 | 1/31/2014 | 2/18/2014 | 18.0 | \$ 88,187,280.84 |
| 9 | Feb-14 | \$ | 4,893,365 | 2/28/2014 | 3/17/2014 | 17.0 | \$ 83,187,205.51 |
| 10 | Mar-14 | \$ | 4,922,572 | $3 / 31 / 2014$ | 4/15/2014 | 15.0 | \$ 73,838,584.95 |
| 11 | Apr-14 | \$ | 3,805,273 | 4/30/2014 | 5/15/2014 | 15.0 | \$ 57,079,097.55 |
| 12 | May-14 | \$ | 3,394,382 | $5 / 31 / 2014$ | 6/16/2014 | 16.0 | \$ 54,310,118.40 |
| 13 | Jun-14 | \$ | 3,841,927 | 6/30/2014 | 7/14/2014 | 14.0 | \$ 53,786,979.26 |
| 14 |  |  |  |  |  |  |  |
| 15 | Total | \$ | 53,473,439 |  |  |  | \$ 839,230,482 |
| 16 |  |  |  |  |  |  |  |
| 17 | [d] Average |  | 15.69 |  |  |  |  |

[a] Payment amount was obtained from the $\mathrm{A} / \mathrm{P}$ detail.
[b] Last day of the month pertaining to the payment made to the ODSA.
[c] Date of the payment made to the ODSA, as traced to the client's bank statements.
[d] Weighted average of the collection lags associated with the payments made to the ODSA.

|  |  | The Dayton Power and Light Company Case No. 15-1830-EL-AIR <br> USF Remittance Lead - Update |  |  |  | Exhibit ADF-2 Page 8 of 8 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No. | Month |  | Payment to ODSA [a] | Month-End [b] | Payment Clear Date [c] | Collection Lag |  | Dollar Lag |
| 1 |  |  |  |  |  |  |  |  |
| 2 | Jun-14 | \$ | \$ 3,841,928 | 6/30/2014 | 7/14/2014 | 14.0 | \$ | 53,786,992 |
| 3 | Jul-14 | \$ | \$ 4,217,140 | 7/31/2014 | 8/15/2014 | 15.0 | \$ | 63,257,096 |
| 4 | Aug-14 | \$ | \$ 4,042,661 | 8/31/2014 | 9/15/2014 | 15.0 | \$ | 60,639,910 |
| 5 | Sep-14 | \$ | \$ 4,123,579 | 9/30/2014 | 10/15/2014 | 15.0 | \$ | 61,853,685 |
| 6 | Oct-14 | \$ | \$ 3,456,219 | 10/31/2014 | 11/17/2014 | 17.0 | \$ | 58,755,728 |
| 7 | Nov-14 | \$ | \$ 3,445,263 | 11/30/2014 | 12/15/2014 | 15.0 | \$ | 51,678,943 |
| 8 | Dec-14 | \$ | \$ 4,003,500 | 12/31/2014 | 1/15/2015 | 15.0 | \$ | 60,052,496 |
| 9 | Jan-15 | \$ | \$ 2,822,831 | 1/31/2015 | 2/17/2015 | 17.0 | \$ | 47,988,126 |
| 10 | Feb-15 | \$ | \$ 3,436,714 | 2/28/2015 | 3/16/2015 | 16.0 | \$ | 54,987,431 |
| 11 | Mar-15 | \$ | \$ 2,658,898 | 3/31/2015 | 4/15/2015 | 15.0 | \$ | 39,883,465 |
| 12 | Apr-15 | \$ | \$ 2,239,846 | 4/30/2015 | 5/15/2015 | 15.0 | \$ | 33,597,695 |
| 13 | May-15 | \$ | \$ 2,024,638 | 5/31/2015 | 6/9/2015 | 9.0 | \$ | 18,221,738 |
| 14 |  |  |  |  |  |  |  |  |
| 15 | Total | \$ | \$ 40,313,216 |  |  |  | \$ | 604,703,304 |
| 16 |  |  |  |  |  |  |  |  |
| 17 | [d] Average |  | 15.00 |  |  |  |  |  |

[^9][a] See Page 2 for details.
[b] See Page 3 for details.
[c] See Page 4 for details.
[d] See Page 5 for details.
[e] See Page 6 for details.
[f] See Page 7 for details.
[g] See Page 8 for details.
[h] See Page 9 for details.
[i] See Page 10 for details.
[] See Page 11 for details.
[k] See Page 12 for details.
[I] See Page 13 for details.
[m] See Page 14 for details.
[n] See Page 15 for details.
[o] See Page 16 for details.
[p] See Page 17 for details.
[q] See Page 18 for details.
[r] See Page 19 for details.
A As update testing comprised of roughly half a year, the annual amounts were divided by 2 for the purposes of the weighted average lead days.
The Dayton Power and Light Company Case No. 15-1830-EL-AIR
Payroll-Paychecks
Exhibit ADF-3 Page 2 of 19

| Mid-Point | Pmt Lead Days $\{C\}$ | Total Lead Days | Expense $\{\mathbf{B}\}$ | Dollar-Days <br> Lead |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | 368,076 D | 6,060,985 |
|  |  |  | 375,120 | 6,176,976 |
|  |  |  | 363,750 | 5,989,750 |
| 7.0 | 9.47 | 16.47 | 352,661 | 5,807,151 |
|  |  |  | 360,359 | 5,933,912 |
|  |  |  | 381,913 | 6,288,834 |
|  |  |  | 362,817 | 5,974,387 |
|  |  |  | 377,530 | 5,537,107 |
|  |  |  | 389,787 | 5,716,876 |
|  |  |  | 439,754 | 6,449,725 |
| 7.0 | 7.67 | 14.67 | 413,794 | 6,068,979 |
|  | 7.67 | 14.67 | 530,961 | 7,787,428 |
|  |  |  | 376,680 | 5,524,640 |
|  |  |  | 381,241 | 5,591,535 |
|  |  |  | 360,541 | 5,287,935 |
|  |  |  | 391,602 | 5,508,535 |
|  |  |  | 355,634 | 5,002,585 |
| 7.0 | 7.07 | 14.07 | 345,808 | 4,864,366 |
|  | 7.07 | 14.07 | 343,988 | 4,838,765 |
|  |  |  | 382,205 | 5,376,350 |
|  |  |  | 367,132 | 5,164,323 |
|  |  |  | 356,616 | 4,956,962 |
|  |  |  | 350,739 | 4,875,272 |
| 7.0 | 6.90 | 13.9 | 376,624 | 5,235,074 |
|  | 6.90 | 13.9 | 347,817 | 4,834,656 |
|  |  |  | 317,518 | 4,413,500 |
|  |  |  | 348,274 D | 4,841,009 |
|  |  | Total | 10,118,941 | 150,107,615 |
| Weighted Average Lead Days |  |  | 14.83 |  |

2013-2014 Testing

Tickmark Legend
A Taken or calculated from the management prepared Payroll Activities schedule
B $\quad$ Traced and agreed to the listing of checks cut from the Payroll Account.
The number shown is an average of the checks within the designated period.
D Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.
Note As manual checks are no longer used regularly for payroll activities, no update testing as been included for this item. All paychecks are now processed via direct deposit.

The Dayton Power and Light

## 2013-2014 Testing



## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the PNC Payroll bank account statement for the appropriate period.
Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.
Item is the allocated amount of the anmual bonus in the pay period ending 3/1/14.
E Item is the allocated amount of the annual bonus in the pay period ending 2/28/15.
Note
Pay period amounts shown in the update testing are larger, as union employees now use direct deposit. Manual checks are not used for payroll now.

| The Dayton Power and Light Company <br> Case No. 15-1830-ELLAIR <br> Payroll-Garnishments |
| :---: |

## 2013-2014 Testing



## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the PNC Payroll bank account statement for the appropriate period.
C Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.
There were no gamishments for the annual bonus.


## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the PNC Payroll bank account statement for the appropriate period.
C Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.
Item is the allocated amount of taxes paid due to the annual bonus in the pay period ending $3 / 1 / 14$.
Item is the allocated amount of taxes paid due to the annual bonus in the pay period ending $2 / 28 / 15$.


## Tickmark Legend

Taken or calculated from the management prepared Payroll Activities schedule
Traced to the general disbursement bank account statement for the appropriate period.
Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.
Item is the portion the annual bonus in the pay period ending $3 / 1 / 14$ that employees elected to contribute to their $401(\mathrm{k})$ accounts.
Item is the portion the annual bonus in the pay period ending $2 / 28 / 15$ that employees elected to contribute to their $401(\mathrm{k})$ accounts.

## 2013-2014 Testing



## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period.
C This payment was made from an AES bank account. The expense then was transferred to DPL
through intercompany accounting. The date shown is when the payment was made from the AES account. It is also noted that this payment is larger due to union workers reaching the company $401(\mathrm{k})$ match maximum threshold in the first quarter. Since these employees reached the threshold early in the year, the expense is signifiantly lower than in other quarters.
D Item is the allocated amount employer matching $401(\mathrm{k})$ funds due to the annual bonus in the pay period ending 3/1/14.
E Item is the allocated amount employer matching $401(\mathrm{k})$ funds due to the annual bonus in the pay period ending 2/28/15.

## 2013-2014 Testing

| Line No | Period Covered $\{\mathbf{A}$ \} |  | Mid-Point | Payment Date $\{B\}$ | Payment <br> Lead Days | Total Lead Days | Expense $\{$ B |  | Dollar-Days Lead |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 6/23/13 | 7/6/13 | 7.0 | 7/16/13 | 10.0 | 17.0 | \$ | 16,568 | C | \$ | 281,658 |
| 2 | 7/7/13 | 7/20/13 | 7.0 | 7/30/13 | 10.0 | 17.0 | \$ | 44,676 |  | \$ | 759,492 |
| 3 | 7/21/13 | 8/3/13 | 7.0 | 8/12/13 | 9.0 | 16.0 | \$ | 37,736 |  | \$ | 603,776 |
| 4 | 8/4/13 | 8/17/13 | 7.0 | 8/29/13 | 12.0 | 19.0 | \$ | 38,160 |  | \$ | 725,040 |
| 5 | 8/18/13 | 8/31/13 | 7.0 | 9/10/13 | 10.0 | 17.0 | \$ | 38,101 |  | \$ | 647,717 |
| 6 | 9/1/13 | 9/14/13 | 7.0 | 9/25/13 | 11.0 | 18.0 | \$ | 38,190 |  | \$ | 687,420 |
| 7 | 9/15/13 | 9/28/13 | 7.0 | 10/7/13 | 9.0 | 16.0 | \$ | 39,325 |  | \$ | 629,200 |
| 8 | 9/15/13 | 9/28/13 | 7.0 | 10/10/13 | 12.0 | 19.0 | \$ | 225 |  | \$ | 4,275 |
| 9 | 9/29/13 | 10/12/13 | 7.0 | 10/21/13 | 9.0 | 16.0 | \$ | 39,030 |  | \$ | 624,480 |
| 10 | 10/13/13 | 10/26/13 | 7.0 | 11/5/13 | 10.0 | 17.0 | \$ | 38,828 |  | \$ | 660,076 |
| 11 | 10/27/13 | 11/9/13 | 7.0 | I1/21/13 | 12.0 | 19.0 | \$ | 40,344 |  | \$ | 766,536 |
| 12 | 11/10/13 | 11/23/13 | 7.0 | 12/3/13 | 10.0 | 17.0 | \$ | 39,268 |  | \$ | 667,556 |
| 13 | 11/24/13 | 12/7/13 | 7.0 | 12/17/13 | 10.0 | 17.0 | \$ | 41,407 |  | \$ | 703,919 |
| 14 | 12/8/13 | 12/21/13 | 7.0 | 12/30/13 | 9.0 | 16.0 | \$ | 40,197 |  | \$ | 643,152 |
| 15 | 12/22/13 | 1/4/14 | 7.0 | 1/21/14 | 17.0 | 24.0 | \$ | 44,333 |  | \$ | 1,063,992 |
| 16 | 1/5/14 | 1/18/14 | 7.0 | 1/31/14 | 13.0 | 20.0 | \$ | 57,681 |  | \$ | 1,153,620 |
| 17 | 1/19/14 | 2/1/14 | 7.0 | 2/11/14 | 10.0 | 17.0 | \$ | 48,732 |  | \$ | 828,444 |
| 18 | 2/2/14 | 2/15/14 | 7.0 | 2/24/14 | 9.0 | 16.0 | \$ | 48,856 |  | \$ | 781,696 |
| 19 | 2/16/14 | 3/1/14 | 7.0 | 3/10/14 | 9.0 | 16.0 | \$ | 47,437 |  | \$ | 758,992 |
| 20 | 3/2/14 | 3/15/14 | 7.0 | 3/21/14 | 6.0 | 13.0 | \$ | 48,960 |  | \$ | 636,480 |
| 21 | 3/16/14 | 3/29/14 | 7.0 | 4/8/14 | 10.0 | 17.0 | \$ | 47,941 |  | \$ | 814,997 |
| 22 | 3/30/14 | 4/12/14 | 7.0 | 4/23/14 | 11.0 | 18.0 | \$ | 47,033 |  | \$ | 846,594 |
| 23 | 4/13/14 | 4/26/14 | 7.0 | 5/6/14 | 10.0 | 17.0 | \$ | 47,000 |  | \$ | 799,000 |
| 24 | 4/27/14 | 5/10/14 | 7.0 | 5/22/14 | 12.0 | 19.0 | \$ | 46,913 |  | \$ | 891,340 |
| 25 | 5/11/14 | 5/24/14 | 7.0 | 6/3/14 | 10.0 | 17.0 | \$ | 47,077 |  | \$ | 800,313 |
| 26 | 5/25/14 | 6/7/14 | 7.0 | 6/18/14 | 11.0 | 18.0 | \$ | 49,906 |  | \$ | 898,308 |
| 27 | 6/8/14 | 6/21/14 | 7.0 | 6/30/14 | 9.0 | 16.0 | \$ | 46,842 |  | \$ | 749,472 |
| 28 | 6/22/14 | 7/5/14 | 7.0 | 7/15/14 | 10.0 | 17.0 | \$ | 30,113 | C | \$ | 511,916 |
| 29 Total Net Pay |  |  |  |  |  |  | \$ | 1,150,879 |  | \$ | 19,939,462 |
| 30 |  |  |  |  |  |  |  |  |  |  |  |
| 31 Weighted Average Lead Days |  |  |  |  |  |  |  | 17.33 |  |  |  |
| 32 |  |  |  |  |  |  |  |  |  |  |  |
| 33 UPDATE |  |  |  |  |  |  |  |  |  |  |  |
| 34 |  |  |  |  |  |  |  |  |  |  |  |
| 35 | 12/21/14 | 1/3/15 | 7.0 | 1/23/15 | 20.0 | 27.0 |  | 33,942 |  |  | 916,434 |
| 36 | 1/4/15 | 1/17/15 | 7.0 | 1/26/15 | 9.0 | 16.0 |  | 36,554 |  |  | 584,866 |
| 37 | 1/18/15 | 1/31/15 | 7.0 | 2/11/15 | 11.0 | 18.0 |  | 35,721 |  |  | 642,971 |
| 38 | 2/1/15 | 2/14/15 | 7.0 | 2/25/15 | 11.0 | 18.0 |  | 36,849 |  |  | 663,288 |
| 39 | 2/15/15 | 2/28/15 | 7.0 | 3/12/15 | 12.0 | 19.0 |  | 37,403 |  |  | 710,656 |
| 40 | 3/1/15 | 3/14/15 | 7.0 | 3/25/15 | 11.0 | 18.0 |  | 38,614 |  |  | 695,043 |
| 41 | 3/15/15 | 3/28/15 | 7.0 | 4/8/15 | 11.0 | 18.0 |  | 37,201 |  |  | 669,609 |
| 42 | 3/29/15 | 4/11/15 | 7.0 | 4/23/15 | 12.0 | 19.0 |  | 36,291 |  |  | 689,535 |
| 43 | 4/12/15 | 4/25/15 | 7.0 | 5/5/15 | 10.0 | 17.0 |  | 35,749 |  |  | 607,738 |
| 44 | 4/26/15 | 5/9/15 | 7.0 | 5/18/15 | 9.0 | 16.0 |  | 36,339 |  |  | 581,428 |
| 45 | 5/10/15 | 5/23/15 | 7.0 | 6/1/15 | 9.0 | 16.0 |  | 36,623 |  |  | 585,965 |
| 46 | 5/24/15 | 6/6/15 | 7.0 | 6/16/15 | 10.0 | 17.0 |  | 36,645 |  |  | 622,962 |
| 47 |  |  |  |  |  |  |  | 437,931 |  |  | 7,970,495 |
| 48 |  |  |  |  |  |  |  |  |  |  |  |
| 49 Weighted Average Lead Days |  |  |  |  |  |  |  | 18 |  |  |  |

## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period.
C Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.

The Dayton Power and Light Company | Case No. 15-1830-ELAIR |
| :---: |
| Payroll-Health Savings 5/3 |

2013-2014 Testing

| $\begin{array}{r} \text { ne } \\ \text { No } \end{array}$ | Period Covered (A) |  | Mid-Point | Payment <br> Date $\{B\}$ | Payment <br> Lead Days | Total <br> Lead Days | Expense $\{\mathrm{B}$ \} |  |  | Dollar-Days <br> Lead |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 6/23/13 | 7/6/13 | 7.0 | 7/11/13 | 5.0 | 12.0 | \$ | 20,175 | C | \$ | 242,095 |
| 2 | 7/7/13 | 7/20/13 | 7.0 | 7/25/13 | 5.0 | 12.0 | \$ | 39,745 |  | \$ | 476,940 |
| 3 | 7/21/13 | 8/3/13 | 7.0 | 8/8/13 | 5.0 | 12.0 | \$ | 44,166 |  | \$ | 529,992 |
| 4 | 8/4/13 | 8/17/13 | 7.0 | 8/22/13 | 5.0 | 12.0 | \$ | 40,678 |  | \$ | 488,136 |
| 5 | 8/18/13 | 8/31/13 | 7.0 | 9/5/13 | 5.0 | 12.0 | \$ | 44,026 |  | \$ | 528,312 |
| 6 | 8/18/13 | 8/31/13 | 7.0 | 9/4/13 | 4.0 | 11.0 | \$ | 12,173 |  | \$ | 133,903 |
| 7 | 9/1/13 | 9/14/13 | 7.0 | 9/19/13 | 5.0 | 12.0 | \$ | 31,066 |  | \$ | 372,792 |
| 8 | 9/15/13 | 9/28/13 | 7.0 | 10/3/13 | 5.0 | 12.0 | \$ | 43,377 |  | \$ | 520,524 |
| 9 | 9/29/13 | 10/12/13 | 7.0 | 10/17/13 | 5.0 | 12.0 | \$ | 43,441 |  | \$ | 521,292 |
| 10 | 10/13/13 | 10/26/13 | 7.0 | 10/31/13 | 5.0 | 12.0 | \$ | 43,046 |  | \$ | 516,552 |
| 11 | 10/27/13 | 11/9/13 | 7.0 | 11/14/13 | 5.0 | 12.0 | \$ | 43,835 |  | \$ | 526,020 |
| 12 | 11/10/13 | 11/23/13 | 7.0 | 11/27/13 | 4.0 | 11.0 | \$ | 41,602 |  | \$ | 457,622 |
| 13 | 11/24/13 | 12/7/13 | 7.0 | 12/12/13 | 5.0 | 12.0 | \$ | 42,139 |  | \$ | 505,668 |
| 14 | 12/8/13 | 12/21/13 | 7.0 | 12/26/13 | 5.0 | 12.0 | \$ | 42,121 |  | \$ | 505,452 |
| 15 | 12/22/13 | 1/4/14 | 7.0 | 1/9/14 | 5.0 | 12.0 | \$ | 26,524 |  | \$ | 318,288 |
| 16 | 1/5/14 | 1/18/14 | 7.0 | 1/23/14 | 5.0 | 12.0 | \$ | 26,483 |  | \$ | 317,796 |
| 17 | 1/19/14 | 2/1/14 | 7.0 | 2/11/14 | 10.0 | 17.0 | \$ | 36,249 |  | \$ | 616,233 |
| 18 | 2/2/14 | 2/15/14 | 7.0 | 2/24/14 | 9.0 | 16.0 | \$ | 26,496 |  | \$ | 423,936 |
| 19 | 2/16/14 | 3/1/14 | 7.0 | 3/7/14 | 6.0 | 13.0 | \$ | 26,870 |  | \$ | 349,310 |
| 20 | 3/2/14 | 3/15/14 | 7.0 | 3/21/14 | 6.0 | 13.0 | \$ | 26,482 |  | \$ | 344,266 |
| 21 | 3/16/14 | 3/29/14 | 7.0 | 4/3/14 | 5.0 | 12.0 | \$ | 26,582 |  | \$ | 318,984 |
| 22 | 3/30/14 | 4/12/14 | 7.0 | 4/17/14 | 5.0 | 12.0 | \$ | 25,930 |  | \$ | 311,160 |
| 23 | 4/13/14 | 4/26/14 | 7.0 | 5/1/14 | 5.0 | 12.0 | \$ | 25,305 |  | \$ | 303,660 |
| 24 | 4/27/14 | 5/10/14 | 7.0 | 5/15/14 | 5.0 | 12.0 | \$ | 25,423 |  | \$ | 305,071 |
| 25 | 5/11/14 | 5/24/14 | 7.0 | 5/28/14 | 4.0 | 11.0 | \$ | 25,445 |  | \$ | 279,894 |
| 26 | 5/25/14 | 6/7/14 | 7.0 | 6/12/14 | 5.0 | 12.0 | \$ | 25,280 |  | \$ | 303,360 |
| 27 | 6/8/14 | 6/21/14 | 7.0 | 6/26/14 | 5.0 | 12.0 | \$ | 25,280 |  | \$ | 303,360 |
| 28 | 6/22/14 | 7/5/14 | 7.0 | 7/10/14 | 5.0 | 12.0 | \$ | 16,157 | C | \$ | 193,883 |
|  | Total Net |  |  |  |  |  | \$ | 896,095 |  | \$ | 11,014,501 | 30

31 Weighted Average Lead Days
3 UPDATE

| 34 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 35 | 12/21/14 | 1/3/15 | 7.0 | 1/8/15 | 5.0 | 12.0 | 15,456 | 185,474 |
| 36 | 1/4/15 | 1/17/15 | 7.0 | 1/22/15 | 5.0 | 12.0 | 16,255 | 195,055 |
| 37 | 1/18/15 | 1/31/15 | 7.0 | 2/9/15 | 9.0 | 16.0 | 15,111 | 241,770 |
| 38 | 2/1/15 | 2/14/15 | 7.0 | 2/19/15 | 5.0 | 12.0 | 15,812 | 189,739 |
| 39 | 2/15/15 | 2/28/15 | 7.0 | 3/6/15 | 6.0 | 13.0 | 15,521 | 201,774 |
| 40 | 3/1/15 | 3/14/15 | 7.0 | 3/19/15 | 5.0 | 12.0 | 15,895 | 190,745 |
| 41 | 3/15/15 | 3/28/15 | 7.0 | 4/2/15 | 5.0 | 12.0 | 16,060 | 192,715 |
| 42 | 3/29/15 | 4/11/15 | 7.0 | 4/16/15 | 5.0 | 12.0 | 15,892 | 190,703 |
| 43 | 4/12/15 | 4/25/15 | 7.0 | 4/30/15 | 5.0 | 12.0 | 15,287 | 183,442 |
| 44 | 4/26/15 | 5/9/15 | 7.0 | 5/14/15 | 5.0 | 12.0 | 15,738 | 188,857 |
| 45 | 5/10/15 | 5/23/15 | 7.0 | 5/28/15 | 5.0 | 12.0 | 15,362 | 184,346 |
| 46 | 5/24/15 | 6/6/15 | 7.0 | 6/t1/15 | 5.0 | 12.0 | 15,362 | 184,346 |
| 47 | 6/7/15 | 6/20/15 | 7.0 | 6/25/15 | 5.0 | 12.0 | 15,608 | 187,291 |
| 48 |  |  |  |  |  |  | 203,358 | 2,516,256 |

50 Weighted Average Lead Days

## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period.
C Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accoued during the study year.


## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period.
C Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.
2013-2014 Testing


## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period.
C Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.

## 2013-2014 Testing



## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period.
C Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.

## 2013-2014 Testing

| $\begin{aligned} & \text { Line } \\ & \text { No } \\ & \hline \end{aligned}$ | Period Covered \{A\} |  | Mid-Point | Payment <br> Date $\{B\}$ | Lead Days | Total <br> Lead Days | Expense \{B] |  | Dollar-Days <br> Lead |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 6/23/13 | 7/20/13 | 14.0 | 10/21/13 | 93.0 | 107.0 | \$ | 330 | C | 35,356 |
| 2 | 7/21/13 | 8/17/13 | 14.0 | 10/21/13 | 65.0 | 79.0 | \$ | 771 |  | 60,909 |
| 3 | 8/18/13 | 9/14/13 | 14.0 | 10/21/13 | 37.0 | 51.0 | \$ | 771 |  | 39,321 |
| 4 | 9/15/13 | 10/12/13 | 14.0 | 12/5/13 | 54.0 | 68.0 | \$ | 771 |  | 52,428 |
| 5 | 10/13/13 | 11/23/13 | 21.0 | 1/6/14 | 44.0 | 65.0 | \$ | 1,157 |  | 75,205 |
| 6 | 11/24/13 | 12/21/13 | 14.0 | 1/6/14 | 16.0 | 30.0 | \$ | 771 |  | 23,130 |
| 7 | 12/22/13 | 1/18/14 | 14.0 | 2/20/14 | 33.0 | 47.0 | \$ | 2,592 |  | 121,824 |
| 8 | 1/19/14 | 2/15/14 | 14.0 | 3/31/14 | 44.0 | 58.0 | \$ | 1,702 |  | 98,716 |
| 9 | 2/16/14 | 3/15/14 | 14.0 | 3/31/14 | 16.0 | 30.0 | \$ | 1,782 |  | 53,460 |
| 10 | 3/16/14 | 4/12/14 | 14.0 | 6/12/14 | 61.0 | 75.0 | \$ | 1,832 |  | 137,400 |
| 11 | 4/13/14 | 5/24/14 | 21.0 | 7/16/14 | 53.0 | 74.0 | \$ | 2,683 |  | 198,542 |
| 12 | 5/25/14 | 6/21/14 | 14.0 | 7/16/14 | 25.0 | 39.0 | \$ | 1,797 |  | 70,083 |
| 13 | 6/22/14 | 7/19/14 | 14.0 | 8/13/14 | 25.0 | 39.0 | \$ | 1,062 | C | 41,418 |
|  | Total Net |  |  |  |  |  | \$ | 18,021 |  | 1,007,792 |
| 15 |  |  |  |  |  |  |  |  |  |  |
| 16 Weighted Average Lead Days |  |  |  |  |  |  |  | 55.92 |  |  |
| 17 |  |  |  |  |  |  |  |  |  |  |
| 18 UPDATE |  |  |  |  |  |  |  |  |  |  |
| 19 |  |  |  |  |  |  |  |  |  |  |
| 20 | 12/21/14 | 1/17/15 | 14.0 | 2/26/15 | 40.0 | 54.0 |  | 2,095 |  | 113,103 |
| 21 | 1/18/15 | 2/28/15 | 21.0 | 4/8/15 | 39.0 | 60.0 |  | 1,065 |  | 63,870 |
| 22 | 3/1/15 | 3/14/15 | 7.0 | 4/8/15 | 25.0 | 32.0 |  | 1,025 |  | 32,784 |
| 23 |  |  |  |  |  |  |  | 4,184 |  | 209,757 |
| 24 |  |  |  |  |  |  |  |  |  |  |
| 25 Weighted Average Lead Days |  |  |  |  |  |  |  | 50 |  |  |

## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period.
C Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year

## 2013-2014 Testing

| Line <br> No | Period Covered $\{\mathbf{A}$ \} |  | Mid-Point | Payment <br> Date \{B\} | Payment <br> Lead Days | Total Lead Days | Expense \{ $\mathbf{B}$ \} |  | Dollar-Days Lead |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 6/23/13 | 7/20/13 | 14.0 | 7/25/13 | 5.0 | 19.0 | \$ | 17,608 | C | \$ | 334,557 |
| 2 | 7/21/13 | 8/17/13 | 14.0 | 8/29/13 | 12.0 | 26.0 | \$ | 41,319 |  | \$ | 1,074,294 |
| 3 | 8/18/13 | 9/14/13 | 14.0 | 9/19/13 | 5.0 | 19.0 | \$ | 41,086 |  | \$ | 780,634 |
| 4 | 9/15/13 | 10/12/13 | 14.0 | 10/17/13 | 5.0 | 19.0 | \$ | 41,188 |  | \$ | 782,572 |
| 5 | 10/13/13 | 11/9/13 | 14.0 | 11/14/13 | 5.0 | 19.0 | \$ | 40,788 |  | \$ | 774,972 |
| 6 | 11/10/13 | 12/21/13 | 21.0 | 12/24/13 | 3.0 | 24.0 | \$ | 40,642 |  | \$ | 975,408 |
| 7 | 12/22/13 | 1/18/14 | 14.0 | 1/27/14 | 9.0 | 23.0 | \$ | 41,518 |  | \$ | 954,914 |
| 8 | 1/19/14 | 2/15/14 | 14.0 | 2/20/14 | 5.0 | 19.0 | \$ | 42,164 |  | \$ | 801,116 |
| 9 | 2/16/14 | 3/15/14 | 14.0 | 3/21/14 | 6.0 | 20.0 | \$ | 41,698 |  | \$ | 833,960 |
| 10 | 3/16/14 | 4/12/14 | 14.0 | 4/17/14 | 5.0 | 19.0 | \$ | 41,552 |  | \$ | 789,488 |
| 11 | 4/13/14 | 5/10/14 | 14.0 | 5/16/14 | 6.0 | 20.0 | \$ | 41,307 |  | \$ | 826,136 |
| 12 | 5/11/14 | 6/21/14 | 21.0 | 6/26/14 | 5.0 | 26.0 | \$ | 41,028 |  | \$ | 1,066,728 |
| 13 | 6/22/14 | 7/19/14 | 14.0 | 7/24/14 | 5.0 | 19.0 | \$ | 26,185 | C | \$ | 497,517 |
|  | Total Net P |  |  |  |  |  | \$ | 498,083 |  | \$ | 10,492,296 |
| 15 |  |  |  |  |  |  |  |  |  |  |  |
| 16 Weighted Average Lead Days |  |  |  |  |  |  |  | 21.07 |  |  |  |
| 17 |  |  |  |  |  |  |  |  |  |  |  |
| 18 UPDATE |  |  |  |  |  |  |  |  |  |  |  |
| 19 |  |  |  |  |  |  |  |  |  |  |  |
| 20 | 12/21/14 | 1/17/15 | 14.0 | 1/23/15 | 6.0 | 20.0 | \$ | 41,317 |  | \$ | 826,345 |
| 21 | 1/18/15 | 2/14/15 | 14.0 | 2/19/15 | 5.0 | 19.0 | \$ | 41,786 |  | \$ | 793,942 |
| 22 | 2/15/15 | 3/14/15 | 14.0 | 3/23/15 | 9.0 | 23.0 | \$ | 41,083 |  | \$ | 944,910 |
| 23 | 3/15/15 | 4/11/15 | 14.0 | 4/23/15 | 12.0 | 26.0 | \$ | 40,895 |  | \$ | 1,063,269 |
| 24 | 4/12/15 | 5/9/15 | 14.0 | 5/14/15 | 5.0 | 19.0 | \$ | 40,458 |  | \$ | 768,707 |
| 25 | 5/10/15 | 6/20/15 | 21.0 | 6/25/15 | 5.0 | 26.0 | \$ | 42,169 |  | \$ | 1,096,395 |
| 26 |  |  |  |  |  |  | \$ | 247,709 |  | \$ | 5,493,568 |
| 27 |  |  |  |  |  |  |  |  |  |  |  |
| 28 Weighted Average Lead Days |  |  |  |  |  |  |  | 22.18 |  |  |  |

## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period.
C Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year

2013-2014 Testing

| $\begin{aligned} & \text { ine } \\ & \text { No } \\ & \hline \end{aligned}$ | Period Covered $\{$ A |  | Mid-Point | Payment <br> Date \{B\} | Payment <br> Lead Days | Total Lead Days | Expense $\{\mathbf{B}\}$ |  | Dollar-Days <br> Lead |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 6/23/13 | 7/20/13 | 14.0 | 7/26/13 | 6.0 | 20.0 | \$ | 2,464 | C \$ | 49,277 |
| 2 | 7/21/13 | 8/17/13 | 14.0 | 8/29/13 | 12.0 | 26.0 | \$ | 5,678 | \$ | 147,628 |
| 3 | 8/18/13 | 9/14/13 | 14.0 | 9/19/13 | 5.0 | 19.0 | \$ | 5,603 | \$ | 106,457 |
| 4 | 9/15/13 | 10/12/13 | 14.0 | 10/17/13 | 5.0 | 19.0 | \$ | 5,603 | \$ | 106,457 |
| 5 | 10/13/13 | 11/23/13 | 21.0 | 11/29/13 | 6.0 | 27.0 | \$ | 8,330 | \$ | 224,910 |
| 6 | 11/24/13 | 12/21/13 | 14.0 | 12/27/13 | 6.0 | 20.0 | \$ | 5,528 | \$ | 110,560 |
| 7 | 12/22/13 | 2/1/14 | 21.0 | 2/7/14 | 6.0 | 27.0 | \$ | 5,528 | \$ | 149,256 |
| 8 | 2/2/14 | 3/1/14 | 14.0 | 2/27/14 | (2,0) | 12.0 | \$ | 5,518 | \$ | 66,220 |
| 9 | 3/2/14 | 3/15/14 | 7.0 | 3/21/14 | 6.0 | 13.0 | \$ | 5,508 | S | 71,604 |
| 10 | 3/16/14 | 4/12/14 | 14.0 | 4/17/14 | 5.0 | 19.0 | \$ | 5,773 | \$ | 109,687 |
| 11 | 4/13/14 | 5/24/14 | 21.0 | 6/5/14 | 12.0 | 33.0 | \$ | 8,597 | \$ | 283,708 |
| 12 | 5/25/14 | 6/21/14 | 14.0 | 6/26/14 | 5.0 | 19.0 | \$ | 5,369 | \$ | 102,011 |
| 13 | 6/22/14 | 7/19/14 | 14.0 | 7/24/14 | 5.0 | 19.0 | \$ | 3,401 | C \$ | 64,610 |
|  | Total Net P |  |  |  |  |  | \$ | 72,900 | \$ | 1,592,386 |
| 15 |  |  |  |  |  |  |  |  |  |  |
| 16 Weighted Average Lead Days |  |  |  |  |  |  |  | 21.84 |  |  |
| $17 \longrightarrow$ |  |  |  |  |  |  |  |  |  |  |
| 18 |  |  |  |  |  |  |  |  |  |  |
| 19 UPDATE |  |  |  |  |  |  |  |  |  |  |
| 20 |  |  |  |  |  |  |  |  |  |  |
| 21 | 12/21/14 | 1/17/15 | 14.0 | 1/23/15 | 6.0 | 20.0 | \$ | 5,042 | \$ | 100,834 |
| 22 | 1/18/15 | 2/14/15 | 14.0 | 2/19/15 | 5.0 | 19.0 | \$ | 4,970 | \$ | 94,438 |
| 23 | 2/15/15 | 3/14/15 | 14.0 | 3/23/15 | 9.0 | 23.0 | \$ | 4,914 | \$ | 113,018 |
| 24 | 3/15/15 | 4/11/15 | 14.0 | 4/16/15 | 5.0 | 19.0 | \$ | 4,914 | \$ | 93,363 |
| 25 | 4/12/15 | 5/23/15 | 21.0 | 5/28/15 | 5.0 | 26.0 | \$ | 7,352 | \$ | 191,145 |
| 26 | 5/24/15 | 6/20/15 | 14.0 | 6/25/15 | 5.0 | 19.0 | \$ | 4,894 | \$ | 92,981 |
| 27 |  |  |  |  |  |  | \$ | 32,085 | \$ | 685,780 |
| 28 |  |  |  |  |  |  |  |  |  |  |
| 29 Weighted Average Lead Days |  |  |  |  |  |  |  | 21.37 |  |  |

## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period.
C Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.

2013-2014 Testing

| $\begin{aligned} & \text { ine } \\ & \text { No } \\ & \hline \end{aligned}$ | Period Covered \{A\} |  | Mid-Point | Payment <br> Date $\{B\}$ | Payment <br> Lead Days | Total Lead Days | Expense \{ B \} |  |  | Dollar-Days Lead |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 6/23/13 | 9/14/13 | 42.0 | 9/30/13 | 16.0 | 58.0 | \$ | 131 | C | \$ | 7,606 |
| 2 | 9/15/13 | 12/21/13 | 49.0 | 1/13/14 | 23.0 | 72.0 | \$ | 352 |  | \$ | 25,344 |
| 3 | 12/22/13 | 3/15/14 | 42.0 | 3/31/14 | 16.0 | 58.0 | \$ | 276 |  | \$ | 16,008 |
| 4 | 3/16/14 | 6/21/14 | 49.0 | 7/14/14 | 23.0 | 72.0 | \$ | 322 |  | \$ | 23,184 |
| 5 | 6/22/14 | 9/13/14 | 42.0 | 9/29/14 | 16.0 | 58.0 | \$ | 170 | C | \$ | 9,843 |
| 6 Total Net Pay |  |  |  |  |  |  | \$ | 1,251 |  | \$ | 81,986 |
| 7 |  |  |  |  |  |  |  |  |  |  |  |
| 8 Weighted Average Lead Days |  |  |  |  |  |  |  | 65.54 |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |  |  |
|  | UPDATE : | maple insi | cant. Inten | Ily omitted |  |  |  |  |  |  |  |

[^10]
## 2013-2014 Testing



## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period
Note:
Due to the annual nature of this item, the program year for the Union annual bonus remains $1 / 1 / 2013-12 / 31 / 2013$. This is because
the end of year bonus cannot be reasonably estimated at the time of this study.

## 2013-2014 Testing

| Line <br> No | Period Covered \{A |  | Mid-Point | Payment <br> Date $\{\mathbf{B}\}$ | Payment Lead Days | Total Lead Days | Expense $\{\mathrm{B}\}$ |  | $\begin{gathered} \text { Dollar-Days } \\ \text { Lead } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 6/23/13 | 7/6/13 | 7.0 | 7/11/13 | 5.0 | 12.0 | \$ | 818 | \$ | 9,818 |
| 2 | 7/7/13 | 7/20/13 | 7.0 | 7/25/13 | 5.0 | 12.0 | \$ | 1,844 | \$ | 22,128 |
| 3 | 7/21/13 | 8/3/13 | 7.0 | 8/8/13 | 5.0 | 12.0 | \$ | 1,854 | \$ | 22,248 |
| 4 | 8/4/13 | 8/17/13 | 7.0 | 8/22/13 | 5.0 | 12.0 | \$ | 1,784 | \$ | 21,408 |
| 5 | 8/18/13 | 8/31/13 | 7.0 | 9/6/13 | 6.0 | 13.0 | \$ | 1,784 | \$ | 23,192 |
| 6 | 9/1/13 | 9/14/13 | 7.0 | 9/19/13 | 5.0 | 12.0 | \$ | 1,779 | \$ | 21,348 |
| 7 | 9/15/13 | 9/28/13 | 7.0 | 10/3/13 | 5.0 | 12.0 | \$ | 1,779 | \$ | 21,348 |
| 8 | 9/29/13 | 10/12/13 | 7.0 | 10/17/13 | 5.0 | 12.0 | \$ | 1,769 | \$ | 21,228 |
| 9 | 10/13/13 | 10/26/13 | 7.0 | 10/31/13 | 5.0 | 12.0 | \$ | 1,759 | \$ | 21,108 |
| 10 | 10/27/13 | 11/9/13 | 7.0 | 11/14/13 | 5.0 | 12.0 | \$ | 1,751 | \$ | 21,012 |
| 11 | I 1/10/13 | 11/23/13 | 7.0 | 11/27/13 | 4.0 | 11.0 | \$ | 1,751 | \$ | 19,261 |
| 12 | 11/24/13 | 12/7/13 | 7.0 | 12/12/13 | 5.0 | 12.0 | \$ | 1,751 | \$ | 21,012 |
| 13 | 12/8/13 | 12/21/13 | 7.0 | 12/27/13 | 6.0 | 13.0 | \$ | 1,751 | \$ | 22,763 |
| 14 | 12/22/13 | 1/4/14 | 7.0 | 1/9114 | 5.0 | 12.0 | \$ | 811 | \$ | 9,732 |
| 15 | 1/5/14 | 1/18/14 | 7.0 | 1/23/14 | 5.0 | 12.0 | \$ | 771 | \$ | 9,252 |
| 16 | 1/19/14 | 2/1/14 | 7.0 | 2/7/14 | 6.0 | 13.0 | \$ | 751 | \$ | 9,763 |
| 17 | 2/2/14 | 2/15/14 | 7.0 | 2/20/14 | 5.0 | 12.0 | \$ | 746 | \$ | 8,952 |
| 18 | 2/16/14 | 3/1/14 | 7.0 | 3/6/14 | 5.0 | 12.0 | \$ | 746 | \$ | 8,952 |
| 19 | 3/2/14 | 3/15/14 | 7.0 | 3/21/14 | 6.0 | 13.0 | \$ | 746 | \$ | 9,698 |
| 20 | 3/16/14 | 3/29/14 | 7.0 | 4/3/14 | 5.0 | 12.0 | \$ | 756 | \$ | 9,072 |
| 21 | 3/30/14 | 4/12/14 | 7.0 | 4/17/14 | 5.0 | 12.0 | \$ | 726 | \$ | 8,712 |
| 22 | 4/13/14 | 4/26/14 | 7.0 | 5/1/14 | 5.0 | 12.0 | \$ | 716 | \$ | 8,592 |
| 23 | 4/27/14 | 5/10/14 | 7.0 | 5/15/14 | 5.0 | 12.0 | \$ | 756 | \$ | 9,072 |
| 24 | 5/11/14 | 5/24/14 | 7.0 | 5/30/14 | 6.0 | 13.0 | \$ | 756 | \$ | 9,828 |
| 25 | 5/25/14 | 6/7/14 | 7.0 | 6/12/14 | 5.0 | 12.0 | \$ | 736 | \$ | 8,832 |
| 26 | 6/8/14 | 6/21/14 | 7.0 | 6/26/14 | 5.0 | 12.0 | \$ | 766 | \$ | 9,192 |
| 27 | 6/22/14 | 7/5/14 | 7.0 | 7/10/14 | 5.0 | 12.0 | \$ | 492 | \$ | 5,909 |
|  | Total Net P |  |  |  |  |  | \$ | 32,450 | \$ | 393,432 |
| 29 |  |  |  |  |  |  |  |  |  |  |
| 30 Weighted Average Lead Days |  |  |  |  |  |  |  | 12.12 |  |  |
| $\begin{aligned} & 31 \\ & 32 \text { UPDATE } \end{aligned}$$33$ |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 34 | 12/21/14 | 1/3/15 | 7.0 | 3/31/15 | 87.0 | 94.0 |  | 811 |  | 76,187 |
| 35 | 1/4/15 | 1/17/15 | 7.0 | 1/23/15 | 6.0 | 13.0 |  | 730 |  | 9,484 |
| 36 | 1/18/15 | 1/31/15 | 7.0 | 2/5/15 | 5.0 | 12.0 |  | 730 |  | 8,754 |
| 37 | 2/1/15 | 2/14/15 | 7.0 | 2/19/15 | 5.0 | 12.0 |  | 710 |  | 8,514 |
| 38 | 2/15/15 | 2/28/15 | 7.0 | 4/5/15 | 36.0 | 43.0 |  | 710 |  | 30,509 |
| 39 | 3/1/15 | 3/14/15 | 7.0 | 3/23/15 | 9.0 | 16.0 |  | 710 |  | 11,352 |
| 40 | 3/15/15 | 3/28/15 | 7.0 | 4/2/15 | 5.0 | 12.0 |  | 710 |  | 8,514 |
| 41 | 3/29/15 | 4/11/15 | 7.0 | 4/16/15 | 5.0 | 12.0 |  | 710 |  | 8,514 |
| 42 | 4/12/15 | 4/25/15 | 7.0 | 4/30/15 | 5.0 | 12.0 |  | 720 |  | 8,634 |
| 43 | 4/26/15 | 5/9/15 | 7.0 | 5/14/15 | 5.0 | 12.0 |  | 720 |  | 8,634 |
| 44 | 5/10/15 | 5/23/15 | 7.0 | 5/28/15 | 5.0 | 12.0 |  | 720 |  | 8,634 |
| 45 | 5/24/15 | 6/6/15 | 7.0 | 6/11/15 | 5.0 | 12.0 |  | 720 |  | 8,634 |
| 46 | 6/7/15 | 6/20/15 | 7.0 | 6/25/15 | 5.0 | 12.0 |  | 720 |  | 8,634 |
| 47 |  |  |  |  |  |  |  | 9,415 |  | 204,997 |
| 4 |  |  |  |  |  |  |  |  |  |  |

49 Weighted Average Lead Days

## Tickmark Legend

A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period.
C Due to this pay period encompasing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.

|  | - | - | The Dayton Power and Light Company Case No. 15-1830-EL-AIR Payroll-Annual Bonus |  |  |  |  | Exhibit ADF-3 Page 19 of 19 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013-2014 Testing <br> Original Data |  |  |  |  |  |  |  |  |
| Line <br> No | Period Co | red \{A\} | Mid-Point | Payment <br> Date \{B\} | Payment <br> Lead Days | Total Lead Days | Expense $\{$ B $\}$ |  | $\begin{aligned} & \text {-Days } \\ & \text { id } \\ & \hline \end{aligned}$ |
| 1 Direct Deposit | 1/1/13 | 12/31/13 | 182.5 | 3/7/14 | 66.0 | 248.5 | \$ 2,137,761 | \$ | 531,233,550 |
| 2 Taxes | 1/1/13 | 12/31/13 | 182.5 | 3/6/14 | 65.0 | 247.5 | \$ 2,006,339 | \$ | 496,568,834 |
| 3401 k contributions | 1/1/13 | 12/31/13 | 182.5 | 3/12/14 | 71.0 | 253.5 | \$ 578,580 | \$ | 146,669,906 |
| 4401 k match | 1/1/13 | 12/31/13 | 182.5 | 4/10/14 | 100.0 | 282.5 | \$ 130,944 | \$ | 36,991,551 |
| 5 |  |  |  |  |  |  | \$4,853,623 | \$ | 1,211,463,841 |
| 6 |  |  |  |  |  |  |  |  |  |
| 7 | Weighted Average Lead Days |  |  |  |  |  | 249.60 |  |  |
| 8 |  |  |  |  |  |  |  |  |  |
| 9 | Update testing |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |
| 11 Direct Deposit | 1/1/14 | 12/31/14 | 182.5 | 3/6/15 | 65.0 | 247.5 | \$ 2,160,121 | \$ | 534,630,042 |
| 12 Taxes | 1/1/14 | 12/31/14 | 182.5 | 3/5/15 | 64.0 | 246.5 | \$ 1,730,242 | \$ | 426,504,742 |
| 13401 k contributions | 1/1/14 | 12/31/14 | 182.5 | 3/9/15 | 68.0 | 250.5 | \$ 414,462 | \$ | 103,822,804 |
| 14 401k match | 1/1/14 | 12/31/14 | 182.5 | 4/15/15 | 105.0 | 287.5 | \$ 113,552 | \$ | 32,646,108 |
| 15 |  |  |  |  |  |  | \$4,418,378 | \$ | 1,097,603,695 |
| 16 |  |  |  |  |  |  |  |  |  |
| 17 | Weighted Average Lead Days |  |  |  |  |  | 248.42 |  |  |

Tickmark Legend
A Taken or calculated from the management prepared Payroll Activities schedule
B Traced to the general disbursement bank account statement for the appropriate period.

|  | The Dayton Power and Light Company Case No. 15-1830-EL-AIR <br> Other Operating Expenses - O\&M Lead |  |  |  | $\mathrm{O}-\mathrm{O} \mathrm{\& M}$ <br> Exhibit ADF-4 Page 1 of 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Line No. | Expense | Expense | Lead |  | Weighted Avg. Lead |
| $\begin{aligned} & 1 \\ & 2 \\ & 3 \end{aligned}$ | O\&M | 103,122,293 | $35.2$ | Page 2 | 35.2 |
| 4 | Lead Days Consolidated - DP\&L | 103,122,293 |  |  | 35.2 |
| 5 |  |  |  |  |  |



[^11][b] Payment clear dates were agreed to the applicable bank statements.
[c] Expenses were agreed to the respective invoices.
[d] 68 selections were made to obtain a $90 \%$ confidence level as the population is made up of greater than 7,000 jtems.

# The Dayton Power and Light Company 

Case No. 15-1830-EL-AxR
Operating Expenses - Detail Testing Update

| Work Performed Test Year 7/1/14-5/31/15 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Line } \\ & \text { No. } \end{aligned}$ | Vendor Name | Period Covered fal |  | Mid-Point | $\begin{gathered} \text { Payment } \\ \text { Clear Date [b] } \end{gathered}$ | Payment <br> Lead Days | $\begin{gathered} \text { Total } \\ \text { Lead Days } \\ \hline \end{gathered}$ | Expense [c] | $\begin{gathered} \text { Dollar } \\ \text { Lead Days } \\ \hline \end{gathered}$ |
|  | CENTURY PROPANE INC | 20662014 | 101312014 | 13 | 12/10:2014 | 40 | 53 | \$50.36 | 2,644 |
| 2 | COOPER POWER SYSTEMS | 11/3/2014 | 11/3/2014 | - | 12/4/2014 | 31 | 31 | \$1,249.08 | 38,721 |
| 3 | NESCO SERVICE COMPANY | 1/31/2015 | 1/31/2015 | - | 4/9/2015 | 68 | 68 | \$2,017.80 | 137,210 |
| 4 | STAPLES INC \& SUBSIDIARIES | $24 / 2015$ | 214/2015 | - | 3/31/2015 | 55 | 55 | \$308.75 | 16,981 |
| 5 | Ni Satellite inc | 81/2014 | 8/31/2014 | 15 | 9/18/2014 | 18 | 33 | \$219.65 | 7.248 |
| 6 | RAVEN ROCK WORKWEARINC | 10/3/2014 | 10/3/2014 | . | 10115/2014 | 12 | 12 | \$137.99 | 1,658 |
| 7 | ODBS ENTERPRISES LLC | 1/26/2015 | 1/262015 | - | 22682015 | 31 | 31 | \$4.272.80 | 132,457 |
| 8 | $K \& R$ DISTRIBUTORS | 36/2015 | 36/2015 | - | 4/3/2015 | 28 | 28 | \$19.14 | 536 |
| 9 | ELEMENT UTILITY SERVICE LLC | 9/16/2014 | 9/20/2014 | 2 | 10/222014 | 32 | 34 | \$3,373.00 | 114,682 |
| 30 | ANIXTER | 4/15/2015 | 4/15/2015 | - | 5/18/2015 | 33 | 33 | \$3,083.50 | 101,756 |
| 11 |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  |  |  |  |
| 14 | Total |  |  |  |  |  |  | 14,732 | 553,892 |
| 15 |  |  |  |  |  |  |  |  |  |
| 18 | Weighted Average Lead Days \{d] |  |  |  |  |  |  | [0] | 37.8 |
| 17 |  |  |  |  |  |  |  |  |  |

[a] Period covered represents the service period of the invoice. Each period was agreed to the respective invoice.
[b] Payment clear dates were agreed to the applicable bank statements.
[c] Expenses were agreed to the respective invoices.
[0] 10 selections were made to update the testing performed during the previous period (7h124-s/30114). The updated sample selected was skewed slighty by a smaller sarnple size and a few selections with longer than average leads. Given these results, original cakulation performed during the previous period (7/1/14-6/30/14) appears appropriate to use in the final leadhag catculation considering no process change and no transactions with longer lead days than in the original sample.
The Dayton Power and Light Company
Exhiblt ADF-5 Page 1 of 2

| Dollar Lead Days |  | Invoice Number |
| :---: | :---: | :---: |
| \$ | $(80,966,822)$ | 304 |
| \$ | $(42,783,055)$ | 302 |
| \$ | $(83,982,339)$ | 73061 |
| \$ | $(30,105,372)$ | 71672 |
| \$ | $(47,619,621)$ | 0000029678 |
| \$ | $(20,213,073)$ | 28566 |
| \$ | $(38,915,803)$ | 305 |
| \$ | $(18,469,964)$ | 301 |
| \$ | (22,444,818) | 73062 |
| \$ | $(8,798,901)$ | 71671 |
| \$ | $(14,481,219)$ | 990258478238 |
| \$ | $(6,252,637)$ | 346883 |
| \$ | $(5,801,857)$ | ALMA00884-01 |
| \$ | $(11,768,858)$ | 60121 |
| \$ | $(169,308,142)$ | 306 |
| \$ | $(283,701,424)$ | 303 |
| \$ | (200,273,440) | 1799539 |
| \$ | $(299,877,128)$ | 858483 |
| \$ | $(15,725,963)$ | 299 |
| \$ | $(17,376,263)$ | 70519X |
| \$ | $(10,842,990)$ | 345489 |
| \$ | $(5,349,304)$ | 345489 |
| \$ | $(4,707,388)$ | 345489 |
| \$ | $(87,350,297)$ | 300 |
| \$ | $(95,181,221)$ | 70519X |
| \$ | $(2,423,903)$ | 300 |
| \$ | $(27,043,704)$ | 345488 |
| \$ | $(20,524,240)$ | 345490 |
| \$ | $(23,417,229)$ | 27803 |
| \$ | $(16,523,654)$ | 345488 |
| \$ | $(8,358,288)$ | 345488 |
| \$ | (11,521,559) | 345488 |
| \$ | $(10,447,860)$ | 345488 |
| \$ | $(91,831,706)$ | 347677 |
| \$ | $(34,344,009)$ | 347677 |
| \$ | (1,868,744,051) |  |





 | $\begin{array}{c}\text { Payment } \\ \text { Clear Date [b] }\end{array}$ |
| :---: |
| $9 / 18 / 2013$ |
| $10 / 9 / 2012$ |
| $8 / 23 / 2013$ |
| $9 / 13 / 2012$ |
| $8 / 28 / 2013$ |
| $8 / 30 / 2012$ |
| $9 / 18 / 2013$ |
| $10 / 9 / 2012$ |
| $8 / 28 / 2013$ |



 응

 $12 / 16 / 2011$
$1 / 4 / 2012$
$12 / 16 / 2011$ 둥
$\stackrel{0}{0}$
$\stackrel{y}{0}$
$\stackrel{\rightharpoonup}{5}$
 둥
N
N్N 12/16/2011

12/16/2011 12/16/2011 | 둥 |
| :---: |
| N |
|  |



 ยLOZ/LE/
عLOZ/LE/

[d] Expenses and policies are excluded in the update testing, as these policies are not expected to be renewed in the future, once the current policies expire.
The Dayton Power and Light Company
Insurance Expenses - Updated Analysis (d)

| Insurance Expenses - Updated Analysis (d) |  |  |  |  |  |  |  |  |  |  |  |  | Exhibit ADF-5 Page 2 of 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Period covering July 1, 2013 through June 30, 2014 |  |  |  |  |  |  |  |  |  |  |  |
|  | Line No. | Vendor Name | Period Co | ered [a] | Mid-Point | Payment Clear Date [b] | Payment <br> Lead Days | Total <br> Lead Days |  | xpense [ $c$ ] |  | Dollar Lead Days | Invoice Number |
|  | 1 | Miami Valley Insurance Company | 9/1/2013 | 6/30/2014 | 151 | 9/18/2013 | (285) | (134) | \$ | 804,230 | \$ | (80,966,822) | 304 |
| a | 2 | Miami Valley insurance Company | 7/1/2013 | 8/31/2013 | 31 | 10/9/2012 | (326) | (296) | \$ | 144,782 | \$ | $(42,783,055)$ | 302 |
|  | 3 | Aegis | 9/1/2013 | 6/30/2014 | 151 | 8123/2013 | (311) | (160) | \$ | 524,952 | \$ | $(83,992,339)$ | 73061 |
| c | 4 | Aegis | 7/1/2013 | 8/31/2013 | 31 | 9/13/2012 | (352) | (322) | \$ | 93,640 | \$ | $(30,105,372)$ | 71672 |
|  | 5 | EIM | 9/1/2013 | 6/30/2014 | 151 | 8/28/2013 | (306) | (155) | \$ | 307,223 | \$ | $(47,619,621)$ | 0000029678 |
| a | 6 | ElM | 7/1/2013 | 8/31/2013 | 31 | 8/30/2012 | (366) | (336) | \$ | 60,248 | \$ | $(20,213,073)$ | 28566 |
|  | 7 | Miami Valley Insurance Company | 9/1/2013 | 6/30/2014 | 151 | 3/18/2013 | (285) | (134) | \$ | 290,416 | \$ | $(38,915,803)$ | 305 |
| a | 8 | Miami Valley Insurance Company | 7/1/2013 | 8/31/2013 | 31 | 10/9/2012 | (326) | (296) | \$ | 62,504 | \$ | (18,469,964) | 301 |
|  | 9 | Aegis | 9/1/2013 | 6/3012014 | 151 | 8/28/2013 | (306) | (155) | \$ | 144,805 | \$ | $(22,444,818)$ | 73062 |
| $c$ | 10 | Aegis | 7/1/2013 | 8/31/2013 | 31 | 9/13/2012 | (352) | (322) | \$ | 27,368 | \$ | $(8,798,901)$ | 71674 |
|  | 11 | Marsh | 911/2013 | 6/30/2014 | 151 | 9/19/2013 | (284) | (133) | \$ | 108,881 | \$ | $(14,481,219)$ | 990258478238 |
| a | 12 | Marsh | 7/1/2013 | 8/31/2013 | 31 | 10/24/2012 | (311) | (281) | \$ | 22,291 | \$ | $(6,252,637)$ | 346983 |
| a | 13 | American Longshore Mutual Association, Ltd. | 711/2013 | 8/31/2013 | 31 | 9/28/2012 | (337) | (307) | \$ | 18,929 | \$ | $(5,801,857)$ | ALMA00884-01 |
|  | 14 | American Longshore Mutual Association, Ltd. | 9/1/2013 | 6/30/2014 | 151 | 9/19/2013 | (284) | (133) | \$ | 88,488 | \$ | $(11,768,858)$ | 60121 |
|  | 15 | Miami Valley Insurance Company | 11/1/2013 | 6/30/2014 | 121 | 12/19/2013 | (193) | (73) | \$ | 2,335,285 | \$ | $(169,308,142)$ | 306 |
| a | 16 | Miami Valley Insurance Company | 7/1/2013 | 10/31/2013 | 61 | 12/7/2012 | (328) | (267) | \$ | 1,062,552 | \$ | $(283,701,424)$ | 303 |
|  | 17 | Lockton | 11/1/2013 | 6/30/2014 | 121 | 11/26/2013 | (216) | (96) | \$ | 2,097,104 | \$ | (200,273,440) | 1799539 |
| a | 18 | Lockton | 7/1/2013 | 10/31/2013 | 61 | 11/30/2012 | (335) | (274) | \$ | 1,094,442 | \$ | $(299,877,128)$ | 858483 |
|  | 19 | Chartis Speciaky insurance Company | 7/1/2013 | 6/30/2014 | 182 | 1/31/2013 | (515) | (333) | \$ | 275,771 | \$ | $(91,831,706)$ | 347677 |
|  | 20 | Allied World Assurance Company | 7/1/2013 | 6/30/2014 | 182 | 1/31/2013 | (515) | (333) | \$ | 103,135 | \$ | (34,344,009) | 347677 |
|  | 21 | Total |  |  |  |  |  |  | \$ | 9,467,048 | \$ | $(1,511,950,187)$ |  |
|  | 22 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 23 | Weighted Average Lead Days |  |  |  |  |  |  |  |  |  | (159.7) |  |
| [a] Period covered represents the service period of the invoice through the date of the study. Each period was agreed to the respective invoice. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| [c] Expenses were agreed to the respective invoices. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| [d] | The change from the prior testing is due to the exclusion of the director, officer and fiduciary liability insurance plans that were removed since they will not be renewed when the current policies expire. The policies were originally taken out during the acquisition and will not be renewed. |  |  |  |  |  |  |  |  |  |  |  |  |
| Note: Inquired with management regarding changes to DP\&L's insurance policies since the original test period. Management noted that the Director, Officer and Fiduciary Liability policies were originally taken out when AES acquired DPL, but are not expected to be renewed once the policies expire, therefore these policies should be excluded from the head/hag calculation. Additionally, one new policy was identified, however the policy is similar to the other policies tested above, therefore no update testing was necessary. |  |  |  |  |  |  |  |  |  |  |  |  |  |

The Dayton Power and Light Company
Calculation of Original and Update Lead/Lag Days for Allocated Expenses Exhibit ADF-6 Page 1 of 2

Note: $\quad$| The update lead days have been calculated using only 2015 data. This is due to service company and payment procedures being formulated in 2014 and then |
| :--- |
| finalized in the beginning of 2015. Per management, it is now standard policy to fund service company monthly. As such, 2015 is the best representative sample of |
| what will exist for future payments. |

| Line <br> No | Month | Begin | End | Mid-Point | Payment <br> Date $\{\mathrm{A}\}$ | Payment Lead Days | Total Lead Days | Expense $\{\mathrm{B}\}$ | Dollar Days Lead |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | January 2014 | 1/1/2014 | 1/31/2014 | 15.5 | 2/14/2014 | 14 | 29.50 | 2,834,258.44 | 83,610,623.98 |
| 2 | February 2014 | 2/1/2014 | 2/28/2014 | 14 | 2/14/2014 | -14 | 0.00 | 1,865,741.56 | - |
| 3 | February 2014 | 2/1/2014 | 2/28/2014 | 14 | 4/15/2014 | 46 | 60.00 | 688,555.18 | 41,313,310.80 |
| 4 | March 2014 | 3/1/2014 | 3/31/2014 | 15.5 | 4/15/2014 | 15 | 30.50 | 5,163,189.82 | 157,477,289.51 |
| 5 | March 2014 | 3/1/2014 | 3/31/2014 | 15.5 | 5/1/2014 | 31 | 46.50 | 1,968,298.32 | 91,525,871.88 |
| 6 | April 2014 | 4/1/2014 | 4/30/2014 | 15 | 5/1/2014 | 1 | 16.00 | 3,379,799.13 | 54,076,786.08 |
| 7 | May 2014 | 5/1/2014 | 5/31/2014 | 15.5 | 5/1/2014 | -30 | -14.50 | 503,647.55 | (7,302,889.48) |
| 8 | May 2014 | 5/1/2014 | 5/31/2014 | 15.5 | 6/26/2014 | 26 | 41.50 | 1,552,857.16 | 64,443,572.14 |
| 9 | June 2014 | 6/1/2014 | 6/30/2014 | 15 | 6/26/2014 | -4 | 11.00 | 954,800.84 | 10,502,809.24 |
| 10 | June 2014 | 6/1/2014 | 6/30/2014 | 15 | 10/24/2014 | 116 | 131.00 | 2,044,673.67 | 267,852,250.77 |
| 11 |  |  |  |  |  |  | total | 20,955,821.67 | 763,499,624.93 |
| 12 |  |  |  |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  | Original Lead/Lag Days | 36.43 |  |
| 14 |  |  |  |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |  |  |  |
| 16 | Update testing |  |  |  |  |  |  |  |  |
| 17 | Month | Begin | End | Mid-Point | Payment Date $\{\mathrm{A}\}$ | Payment Lead Days | Total Lead Days | Expense $\{\mathrm{B}\}$ | Dollar Days Lead |
| 18 | January 2015 | 1/1/2015 | 1/31/2015 | 15.5 | 2/27/2015 | 27 | 42.50 | 2,686,702.68 | 114,184,863.90 |
| 19 | February 2015 | 2/1/2015 | 2/28/2015 | 14 | 2/27/2015 | -1 | 13.00 | 2,673,814.24 | 34,759,585.12 |
| 20 | March 2015 | 3/1/2015 | 3/31/2015 | 15.5 | 2/27/2015 | -32 | -16.50 | 3,397,371.65 | $(56,056,632.23)$ |
| 21 | April 2015 | 4/1/2015 | 4/30/2015 | 15 | 2/27/2015 | -62 | -47.00 | 417,521.40 | (19,623,505.80) |
| 22 | April 2015 | 4/1/2015 | 4/30/2015 | 15 | 3/27/2015 | -34 | -19.00 | 565,758.56 | $(10,749,412.64)$ |
| 23 | May 2015 | 5/1/2015 | 5/30/2015 | 15 | 3/27/2015 | -64 | -49.00 | 2,031,382.44 | $(99,537,739.56)$ |
| 24 | May 2015 | 5/1/2015 | 5/30/2015 | 15 | 4/30/2015 | -30 | -15.00 | 899,693.50 | $(13,495,402.50)$ |
| 25 |  |  |  |  |  |  | TOTAL | 12,672,244.47 | (50,518,243.71) |
| 26 |  |  |  |  |  |  |  |  |  |
| 27 |  |  |  |  |  |  | Update Lead/Lag Days | (3.99) |  |

[^12]The Dayton Power and Light Company
Exhibit ADF-6 Page 2 of 2

| Line <br> No | Month | Begin | End | Mid-Point | Payment <br> Date $\{\mathrm{A}\}$ | Payment Lead Days | Total Lead Days | Expense $\{\mathrm{B}$ \} | Dollar Days Lead |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | January 2014 | 1/1/2014 | 1/31/2014 | 15.5 | 2/14/2014 | 14 | 29.50 | 2,834,258.44 | 83,610,623.98 |
| 2 | February 2014 | 2/1/2014 | 2/28/2014 | 14 | 2/14/2014 | -14 | 0.00 | 1,865,741.56 | - |
| 3 | February 2014 | 2/1/2014 | 2/28/2014 | 14 | 4/15/2014 | 46 | 60.00 | 688,555.18 | 41,313,310.80 |
| 4 | March 2014 | 3/1/2014 | 3/31/2014 | 15.5 | 4/15/2014 | 15 | 30.50 | 5,163,189.82 | 157,477,289.51 |
| 5 | March 2014 | 3/1/2014 | 3/31/2014 | 15.5 | 5/1/2014 | 31 | 46.50 | 1,968,298.32 | 91,525,871.88 |
| 6 | April 2014 | 4/1/2014 | 4/30/2014 | 15 | 5/1/2014 | 1 | 16.00 | 3,379,799.13 | 54,076,786.08 |
| 7 | May 2014 | 5/1/2014 | 5/31/2014 | 15.5 | 5/1/2014 | -30 | -14.50 | 503,647.55 | $(7,302,889.48)$ |
| 8 | May 2014 | 5/1/2014 | 5/31/2014 | 15.5 | 6/26/2014 | 26 | 41.50 | 1,552,857.16 | 64,443,572.14 |
| 9 | June 2014 | 6/1/2014 | 6/30/2014 | 15 | 6/26/2014 | -4 | 11.00 | 954,800.84 | 10,502,809.24 |
| 10 | June 2014 | 6/1/2014 | 6/30/2014 | 15 | 10/24/2014 | 116 | 131.00 | 2,044,673.67 | 267,852,250.77 |
| 11 | July 2014 | 7/1/2014 | 7/31/2014 | 15.5 | 10/24/2014 | 85 | 100.50 | 2,647,509.56 | 266,074,710.78 |
| 12 | August 2014 | 8/1/2014 | 8/31/2014 | 15.5 | 10/24/2014 | 54 | 69.50 | 323,816.77 | 22,505,265.52 |
| 13 | August 2014 | 8/1/2014 | 8/31/2014 | 15.5 | 11/24/2014 | 85 | 100.50 | 2,042,808.56 | 205,302,260.28 |
| 14 | September 2014 | 9/1/2014 | 9/30/2014 | 15 | 11/24/2014 | 55 | 70.00 | 2,368,880.30 | 165,821,621.00 |
| 15 | October 2014 | 10/1/2014 | 10/31/2014 | 15.5 | 11/24/2014 | 24 | 39.50 | 604,311.14 | 23,870,290.03 |
| 16 | October 2014 | 10/1/2014 | 10/31/2014 | 15.5 | 12/31/2014 | 61 | 76.50 | 2,013,320.00 | 154,018,980.00 |
| 17 | October 2014 | 10/1/2014 | 10/31/2014 | 15.5 | 1/20/2015 | 81 | 96.50 | 19,358.87 | 1,868,130.95 |
| 18 | November 2014 | 11/1/2014 | 11/30/2014 | 15 | 1/20/2015 | 51 | 66.00 | 2,115,003.19 | 139,590,210.54 |
| 19 | December 2014 | 12/1/2014 | 12/31/2014 | 15.5 | 1/20/2015 | 20 | 35.50 | 462,778.94 | 16,428,652.37 |
| 20 | December 2014 | 12/1/2014 | 12/31/2014 | 15.5 | 2/27/2015 | 58 | 73.50 | 2,091,180.70 | 153,701,781.45 |
| 21 | January 2015 | 1/1/2015 | 1/31/2015 | 15.5 | 2/27/2015 | 27 | 42.50 | 2,686,702.68 | 114,184,863.90 |
| 22 | February 2015 | 2/1/2015 | 2/28/2015 | 14 | 2/27/2015 | -1 | 13.00 | 2,673,814.24 | 34,759,585.12 |
| 23 | March 2015 | 3/1/2015 | 3/31/2015 | 15.5 | 2/27/2015 | -32 | -16.50 | 3,397,371.65 | $(56,056,632.23)$ |
| 24 | April 2015 | 4/1/2015 | 4/30/2015 | 15 | 2/27/2015 | -62 | -47.00 | 417,521.40 | $(19,623,505.80)$ |
| 25 | April 2015 | 4/1/2015 | 4/30/2015 | 15 | 3/27/2015 | -34 | -19.00 | 565,758.56 | $(10,749,412.64)$ |
| 26 | May 2015 | 5/1/2015 | 5/30/2015 | 15 | 3/27/2015 | -64 | -49.00 | 2,031,382.44 | $(99,537,739.56)$ |
| 27 | May 2015 | 5/1/2015 | 5/30/2015 | 15 | 4/30/2015 | -30 | -15.00 | 899,693.50 | $(13,495,402.50)$ |
| 28 |  |  |  |  |  |  |  | 48,317,034.17 | 1,862,163,284.14 |
| 29 |  |  |  |  |  |  |  |  |  |
| 30 |  |  |  |  |  | Incepti | o Date Days | 38.54 |  |

A Traced and agreed to bank statements.
B Traced and agreed to the "Pmt Applied" field for each payment for each month.
The Dayton Power and Light Company
Case No. 15-1830-EL-AIR
Taxes Other than Income Taxes Lead

The Dayton Power and Light Company Case No. 15-1830-EL-AIR
Exhibit ADF-7 Page 2 of 9

\[

\]

A Taken from the Tax Report provided by management.
B Traced and agreed to the clear date on the appropriate bank statement. C Traced and agreed to both the Tax Report and the appropriate bank statement

$$
\begin{gathered}
\text { Payment } \\
\text { Lead Days } \\
20 \\
20 \\
17 \\
20 \\
20 \\
17 \\
20 \\
20 \\
18 \\
20 \\
20 \\
18
\end{gathered}
$$

Tickmark Legend
A Taken from the
A Taken from the 2013 Real and Personal Tax Schedule.
B Traced and agreed to the clear date on the appropriate bank statement.
C The payment for the first half of 2013 was lost in the mail, causing the se C The payment for the first half of 2013 was lost in the mail, causing the second payment to be for the entire year's tax.
Since this is a non-recurring item, it has been adjusted to fit the expected timeline.
The Dayton Power and Light Company
Case No. 15-1830-EL-AIR

| Line No | Period Covered |  | Mid-Point | Payment Clear Date $\{\mathrm{A}\}$ | Payment Lead Days | Total Lead Days | Expense $\{\mathrm{B}\}$ |  | Doilar-Days Lead |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 7/1/13 | 12/31/13 | 92 | 10/18/13 | -74 | 18 | \$ | 901,513.14 | c | \$ | 16,227,236.52 |
| 2 | 7/1/13 | 12/31/13 | 92 | 10/18/13 | -74 | 18 | \$ | 28,937.00 | c | \$ | 520,866.00 |
| 3 | 1/1/14 | 6/30/14 | 90.5 | 5/30/14 | -31 | 59.5 | \$ | 27,877.94 | D | \$ | 1,658,737.43 |
| 4 | 1/1/14 | 6/30/14 | 90.5 | 5/30/14 | -31 | 59.5 | \$ | 170,136.12 | D | \$ | 10,123,099,14 |
| 5 | 1/1/14 | 6/30/14 | 90.5 | 5/30/14 | -31 | 59.5 | \$ | 698,382.76 | D | \$ | 41,553,774.22 |
| 6 |  |  |  |  |  |  | \$ | 1,826,846.96 |  | \$ | 70,083,713.31 |
| 7 |  |  |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  | ighted Aver |  |  | 38.36320986 |  |  |  |

Tickmark Legend
A Traced and agreed to the clear date on the appropriate bank statement.
B Traced and agreed to both the Tax Report and the appropriate bank statement.
C These two items are combined in one line item on the bank statement dated 10/18/2013.
D These three items are combined in one line item on the bank statement dated 05/30/2014.
Line No
The Dayton Power and Light Company Case No. 15-1830-EL-AIR
Exhibit ADF-7 Page 5 of 9

|  | Dollar-Days <br> Expense $\{$ C $\}$ |  |  |
| :---: | ---: | ---: | ---: |
| $\$$ | $111,964.06$ | $\$$ | $4,310,616.31$ |
| $\$$ | $199,076.32$ | $\$$ | $4,678,293.52$ |
| $\$$ | $156,190.07$ | $\$$ | $6,325,697.84$ |
| $\$$ | $132,836.54$ | $\$$ | $5,047,788.52$ |
| $\$$ | $159,682.31$ | $\$$ | $5,988,086.63$ |
| $\$$ | $105,750.52$ | $\$$ | $3,859,893.98$ |
| $\$$ | $68,541.69$ | $\$$ | $2,330,417.46$ |
| $\$$ | $128,636.13$ | $\$$ | $4,952,491.01$ |
| $\$$ | $177,643.59$ | $\$$ | $6,217,525.65$ |
| $\$$ | $47,242.77$ | $\$$ | $1,677,118.34$ |
| $\$$ | $230,715.30$ | $\$$ | $8,767,181.40$ |
| $\$$ | $1,518,279.30$ | $\$$ | $54,155,110.64$ |

$$
\begin{array}{cc}
\begin{array}{c}
\text { Payment } \\
\text { Lead Days }
\end{array} & \begin{array}{c}
\text { Total } \\
\text { Lead Days }
\end{array} \\
23 & 38.5 \\
-7 & 23.5 \\
25 & 40.5 \\
23 & 38 \\
22 & 37.5 \\
21 & 36.5 \\
20 & 34 \\
23 & 38.5 \\
20 & 35 \\
20 & 35.5 \\
23 & 38 \\
& \\
&
\end{array}
$$



$$
\{\forall\} \text { parənos pounad }
$$

## Tickmark Legend

A Taken from the Tax Report.
B Traced and agreed to the clear date on the appropriate bank statement. C Traced and agreed to both the Tax Report and the appropriate bank statement.

A Taken from the MacGregor tax estimation sheet.
B Traced and agreed to the clear date on the appropriate bank statement.
C Original, full amounts are traced and agreed to both the MacGregor tax estimation sheet and the appropriate bank statement. Amounts shown are allocated to DP\&L. D Due to MacGregor Property taxes not being paid until early 2015, this item was estimated based upon projections provided by management.
 Tickmark Legend
A Taken from the Tax Report provided by management.
B Traced and agreed to the clear date on the appropriate bank statement.
C Traced and agreed to both the Tax Report and the appropriate bank statement

|  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | The Dayton Power and Light Company <br> Case No. 15-1830-EL-AIR <br> CAT Tax |
| Line No |  |

Tickmark Legend
A Taken from the CAT Tax Accrual Report.
B Traced and agreed to the clear date on the appropriate bank statement.
C Traced and agreed to both the CAT Tax Report and the appropriate bank statement or ACH confirmation
The Dayton Power and Light Company
Exhibit ADF-7 Page 9 of 9

| Payment <br> Lead Days | Total <br> Lead Days | Expense $\{$ C $\}$ |  | Dollar-Days <br> Lead |  |
| :---: | :---: | :---: | ---: | :---: | ---: |
| -54 | 38 | $\$ 154,791.71$ | D | $\$$ | $5,882,084.98$ |
| -54 | 38 | $\$ 4,968.54$ | D | $\$$ | $188,804.52$ |
| -17 | 73.5 | $\$$ | $4,886.00$ | E | $\$$ |
| -17 | 73.5 | $\$ 29,818.00$ | E | $\$$ | $259,121.00$ |
| -17 | 73.5 | $\$ 122,396.50$ | E | $\$$ | $8,996,623.00$ |
|  |  | $\$ 316,860.75$ |  | $\$$ | $17,617,776.25$ |
|  |  |  |  |  |  |
| Weighted Average Lead |  |  | 55.60 |  |  |

[^13]The Dayton Power and Light Company
Federal Income Tax Lead Days $\quad$ Exhibit ADF-8 Page 1 of 1


|  | $\stackrel{i}{i}^{i}$ | $\stackrel{\text { Nे}}{\stackrel{\circ}{c}}$ | $\stackrel{\text { Ǹ }}{\substack{~}}$ | ì |
| :---: | :---: | :---: | :---: | :---: |
|  | $\left\lvert\, \begin{aligned} & \frac{0}{1} \\ & \frac{\sqrt{3}}{1} \\ & \frac{0}{0} \end{aligned}\right.$ | $\begin{aligned} & \hat{n} \\ & \stackrel{\theta}{0} \end{aligned}$ | $\underset{\sim}{n}$ | $\begin{aligned} & n \\ & 0 \\ & 0 \end{aligned}$ |



| ays from |
| :--- |
| Payary 1 |
| Paym |
| $\begin{array}{c}\text { (a) } \\ 105.0 \\ 166.0 \\ 258.0 \\ 349.0\end{array}$ |

nt Date
$15 / 2014$
$15 / 2014$
$15 / 2014$
$15 / 2014$
Total


## BEFORE THE

## PUBLIC UTILITIES COMMISSION OF OHIO

THE DAYTON POWER AND LIGHT COMPANY
CASE NO. 15-1830-EL-AIR
CASE NO. 15-1831-EL-AAM CASE NO. 15-1832-EL-ATA

## DIRECT TESTIMONY

OF CRAIG A. FORESTAL

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

BEFORE THE

# PUBLIC UTILITIES COMMISSION OF OHIO 

## DIRECT TESTIMONY OF

## CRAIG A. FORESTAL

ON BEHALF OF
THE DAYTON POWER AND LIGHT COMPANY

TABLE OF CONTENTS

## I. INTRODUCTION. .1

II. PURPOSE OF TESTIMONY ..... 2
III. SCHEDULES AND WORKPAPERS ..... 3
IV. CONCLUSION ..... 15

## 1. INTRODUCTION

Q. Please state your name and business address.
A. My name is Craig Forestal. My business address is One Monument Circle, Indianapolis, IN 46204.

## Q. By whom and in what capacity are you employed?

A. I am employed by AES U.S. Services, LLC ("AES Services") as Director of Regulatory Accounting for its US Strategic Business Unit ("SBU"), which includes The Dayton Power \& Light Company ("DP\&L" or "Company"), as well as Indianapolis Power \& Light Company ("IPL").

## Q. Please summarize your work experience with AES.

A. I was an employee of IPL from May 2002 through December 2013. During my tenure with IPL, I worked in various positions including senior accountant, Team Leader of Corporate Accounting and Director of Regulatory Accounting. I served as the primary accounting witness in regulatory commission filings for IPL since 2006 and continue to serve in that capacity today. In June of 2013, I began transitioning into my current role where I am responsible for regulatory accounting for both DP\&L and IPL. I report to the Controller of the AES US SBU who also serves as the Controller of DP\&L.
Q. Will you describe briefly your educational and business background?
A. I hold a Bachelor of Science Degree in Accounting from Ball State University. I have over 24 years of accounting experience in various industries including telephone and
electric utilities, real estate investment trusts and public accounting. I have 13 years of electric utility accounting experience.
Q. Have you previously testified before the Public Utility Commission of Ohio ("Commission" or "PUCO") or other regulatory agencies?
A. Yes, I have submitted testimony in support of DP\&L's Significantly Excessive Earnings Tests for calendar year earnings of 2013 (Case No. 14-0831-EL-UNC) and 2014 (Case No. 15-928-EL-UNC). I have also testified before the Indiana Public Utility Commission in several cases for IPL, including but not limited to IPL's semi-annual Environmental Compliance Cost Recovery Adjustment proceedings under Cause Nos. 42170-ECR-7 and 43403, and IPL's pending basic rates case, Cause No. 44576.

## II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding?
A. The purpose of my testimony is to explain the operating income statements and pro forma adjustments which I sponsor. In addition, I co-sponsor several schedules that contain many of DP\&L's pro forma adjustments made to the test year period. The portion that I sponsor relates to the portion of the test year derived from the actual books and records, which are the months of June 2015 through September 2015. Company Witness Rabb is sponsoring the calculations and support for the projected information contained in the Schedule B section and Schedule C section and Company Witness Santacruz provides an overview of the forecast methodology used by Company Witness Rabb. Additionally, I sponsor Schedule C-2.1, which contains allocation percentages that are used to derive the jurisdictional distribution portion of income statement amounts; however, the allocation
percentages presented on that schedule are sponsored by Company Witnesses Tornquist and Rennix. Finally, I sponsor Schedule C-3.23, which removes unbilled revenues and expenses. I sponsor the unbilled expense amounts, while Company Witness Whitehead sponsors the unbilled revenue amounts.

## III. SCHEDULES AND WORKPAPERS

Q. Please provide a list of the schedules that you sponsor or cosponsor.
A. The schedules that I sponsor or cosponsor are:

- Schedule C-2 - Adjusted Test Year Jurisdictional Operating Income
- Schedule C-2.1 - Operating Revenue and Expenses by Accounts - Jurisdictional Allocation
- Schedule C-3 - Summary of Jurisdictional Adjustments to Operating Income
- Schedule C-3.3 - Eliminate Reconciliation Rider Nonbypassable Revenue
- Schedule C-3.4 - Eliminate Storm Cost Recovery Rider Revenue and Expense
- Schedule C-3.5 - Eliminate Energy Efficiency Rider Revenue and Expense
- Schedule C-3.6 - Eliminate Economic Development Discounts and Rider Revenue
- Schedule C-3.7 - Eliminate Alternative Energy Rider Expense
- Schedule C-3.18 - Eliminate Wright Patterson Non-Jurisdictional Revenues and Expenses
- Schedule C-3.19 - Eliminate General Advertising Expense
- Schedule C-3.20 - Eliminate PUCO Approved Payments Funded by Shareholders
- Schedule C-3.21 - Miscellaneous Expense Adjustments
- Schedule C-3.23 - Eliminate Unbilled Revenue and Expense
Q. Were these schedules or portions of these schedules prepared or assembled by you or under your direction or supervision?
A. Yes.


## Q. Did you submit any workpapers?

A. Yes. I am sponsoring the workpapers that support the financial statements and schedules that I sponsor. The workpapers that I sponsor are:

- Workpaper C-2.1 - Monthly Operating Revenue and Expenses by Account
- Workpaper C-3.3- Eliminate Reconciliation Rider Nonbypassable Revenue
- Workpaper C-3.4 - Eliminate Storm Cost Recovery Rider Revenue and Expense
- Workpaper C-3.5 - Eliminate Energy Efficiency Rider Revenue and Expense
- Workpaper C-3.6 - Eliminate Economic Development Discounts and Rider Revenue
- Workpaper C-3.7 - Eliminate Alternative Energy Rider Expense
- Workpaper C-3.18 - Eliminate Wright Patterson Non-Jurisdictional Revenue and Expense
- Workpaper C-3.20 - Eliminate PUCO Approved Payments Funded by Shareholders
- Workpaper C-3.23 - Eliminate Unbilled Revenue and Expense
Q. Schedule C-2 reflects the Adjusted Test Year Operating Income. Could you briefly explain the purpose of this schedule?
A. Yes. This schedule illustrates the unadjusted per books jurisdictional operating income for DP\&L and then summarizes the adjustment necessary to normalize and annualize the test year results. Column E of the schedule incorporates the adjustments to reflect adjusted Test Year Operating Income. The adjusted jurisdictional net operating income is carried forward to line 3 of Schedule A-1 in column C.
Q. Please explain the general nature of the jurisdictional adjustments to operating income, as summarized in column D of Schedule C-2.
A. The adjustments made in Schedule C-2 are necessary in order to reflect, on a normalized and annualized basis, changes in operating conditions on DP\&L's distribution system which are not fully reflected in the test year operating results shown in column $C$. These adjustments reflect changes which are fixed in time, known to be occurring, and measurable in amount. It is necessary to give effect to these adjustments in order to determine properly the pro forma jurisdictional operating revenues, operating expenses, and operating income at present rates, as shown in column E, before proceeding to reflect the additional adjustments needed to determine these amounts at proposed rates.


## Q. Are any amounts on Schedule C-2 derived from other schedules in this filing?

A. Yes. The amounts in column C are derived from column F of Schedule $\mathrm{C}-2.1$ and the amounts in column D of the schedule are derived from column C of schedule $\mathrm{C}-3$.

## Q. Can you please explain the purpose of Schedule C-2.1?

A. Yes. This schedule illustrates the unadjusted per books Test Year Operating Income for DP\&L in column D. In addition, the schedule shows the portion of each account balance that is considered jurisdictional for purposes of this filing in column E. Finally, in column F, the schedule shows the unadjusted jurisdictional operating income. The amounts in column F are carried forward to column C of Schedule C-2.

## Q. What is the source of the information shown on Schedule C-2.1?

A. Column D of this schedule contains the components of total utility net operating income for the test period, consisting of actual financial results of operations for the months of June 2015, July 2015, August 2015, and September 2015, and forecasted data for the months of October 2015 through May 2016. The allocation factors in column E were carried from Schedule B-7, as appropriate to each FERC account, with the exception that where directly identifiable, the direct distribution portion of expenses was used in column F and the allocation percentage represents the distribution amount divided by the
unadjusted total utility amount. For the remaining items, column $F$ is the result of applying the allocation factors to the test period totals, to arrive at jurisdictional (Distribution Only) net operating income for the test period of $\$ 25,444,819$.
Q. Turning to Schedule C-3, which is the summary of jurisdictional adjustments to operating income, could you briefly explain the purpose of this schedule?
A. Yes. This schedule is a summary of each adjustment that we are proposing to Test Year Operating Income and illustrates the combined income statement impact of all such adjustments. As I described previously, the total of these adjustments is in column C, page 1 of 5 , and is carried forward to column $D$ of Schedule C-2. Each adjustment is limited to the jurisdictional portion needed to adjust jurisdictional operating income to reflect changes which are representative of utility operations and which are fixed in time, known to be occurring, and measurable in amount. If these adjustments are not made, the jurisdictional proforma operating revenues and expenses included in the determination of DP\&L's operating income at present and at proposed rates would be inaccurate and would include amounts not appropriate for recognition in the process of establishing base rates for the continued provision of safe and reliable electric utility service.

## Q. Turning to Schedule C-3.3, which reflects an adjustment to eliminate Reconciliation Rider Nonbypassable operating revenues and expenses, could you briefly explain the purpose of this schedule?

A. Yes. Reconciliation Rider Nonbypassable operating revenues are not part of base rates and therefore should not affect the revenue requirement in this proceeding. This schedule summarizes and removes the effect on DP\&L's Test Year Operating Income from the

Reconciliation Rider revenues. There were no jurisdictional test year operating expenses related to the Reconciliation Rider Nonbypassable. This adjustment is carried forward to page 1 of Schedule C-3 in column F.
Q. Turning to Schedule C-3.4, which reflects an adjustment to remove Storm Cost Recovery Rider operating revenue and expense, could you briefly explain the purpose of this schedule?
A. Yes. This schedule is similar to Schedule C-3.3 in that it summarizes and removes the impact a rider had on DP\&L's Test Year Operating Income. DP\&L's rider for prior storm costs was established through Case No. 12-3062-EL-RDR. As the rider recovers prior costs that are not part of base rates, it should not affect the revenue requirement in this proceeding. Therefore, the effect on the revenue requirement is being eliminated through this adjustment. This adjustment is carried forward to page 1 of Schedule C-3 in column G.
Q. Turning to Schedule C-3.5, which reflects an adjustment to eliminate Energy Efficiency Rider operating revenues and expenses, could you briefly explain the purpose of this schedule?
A. Yes. This is another adjustment to remove revenues and expenses that are collected through a separate rider, rather than through base rates. This schedule summarizes the effect on the Test Year Operating Income of energy efficiency programs, including the rider revenues, so that such amounts can be removed. This adjustment is carried forward to page 1 of Schedule $\mathrm{C}-3$ in column H .
Q. Turning to Schedule C-3.6, which reflects an adjustment to remove the Economic Development Rider Revenues and related discounts, could you briefly explain the purpose of this schedule?
A. Yes. This schedule summarizes all of the revenue and discounts related to DP\&L's rider for economic development, which was established through Case No. 08-1094-EL-SSO. As this rate is established outside this proceeding, the effect on the revenue requirement is being eliminated through this adjustment. There were no jurisdictional operating expenses in the test period related to the Economic Development Rider, which is why the pro forma adjustment does not propose a change to operating expenses. This adjustment is carried forward to page 2 of Schedule $\mathrm{C}-3$ in column C .

## Q. Please explain why eliminating this rider increases revenues.

A. When the test period began, DP\&L was in an overcollection position for this rider and accordingly, the rider rates established for the actual months in the test period were less than revenue discounts. As such, the net impact of the rider revenues and the revenue credits was a debit to revenues for the actual months. The projected months of the test year did not contain a projection for economic development revenues. Consequently, the adjustment to remove the revenues and discounts for the economic development rider increases test year revenues.
Q. Turning to Schedule C-3.7, which reflects an adjustment to eliminate Alternative Energy Rider expense, could you briefly explain the purpose of this schedule?
A. Yes. This schedule summarizes all of the operating expenses related to DP\&L's rider for alternative energy compliance costs, which was established through Case No. 08-1094-

Page 9 of 15

EL-SSO and modified in Case No. 12-426-EL-SSO. As this rate is established outside the context of this proceeding, and not part of base rates, the effect on the revenue requirement is being eliminated through this adjustment. This adjustment is carried forward to page 2 of Schedule C-3 in column D.
Q. Please explain why you did not include an adjustment on Schedule C-3.7 to eliminate Alternative Energy Rider revenues.
A. For purposes of this filing, we considered alternative energy revenues to be generation revenues, rather than distribution revenues. Accordingly, they were allocated $0 \%$ to jurisdictional revenues on Schedule C-2.1. They are part of the $\$ 410,444,426$ of Other Retail Revenues on Schedule C-2.1 on line 3 of page 1 of 5 . As such, there were no jurisdictional Alternative Energy Rider revenues in Schedule C-2 to eliminate.
Q. Have you proposed adjustments to remove all of the DP\&L rider revenues and operating expenses?
A. No. There are certain riders that do not include any distribution revenues or expenses. In other words, for certain of DP\&L's riders, none of the revenues or expenses were allocated to Unadjusted Jurisdictional Net Operating Income on Schedule C-2.1 and therefore, none of the revenues or expenses impact the revenue requirement we are proposing in this proceeding. Some examples of such riders are: Fuel, Competitive Bidding, and the Transmission Cost Recovery Riders.
Q. Turning to Schedule C-3.18, which reflects an adjustment to remove nonjurisdictional revenues and expenses, could you briefly explain the purpose of this schedule?
A. Yes. In 2011, DP\&L purchased certain distribution equipment from the Wright Patterson Air Force Base ("WPAFB") under a fifty-year agreement. Such equipment remains in place to serve WPAFB and is now maintained and operated by DP\&L. As of September 30,2015 , the total plant in service value of this distribution equipment was $\$ 44.8$ million and the total rate base related to the equipment after accumulated depreciation is $\$ 23.6$ million. Under a contract, WPAFB pays DP\&L a fee for the use of the distribution equipment. The fee calculation includes a return on the net book value of the distribution equipment as well as the estimated annual operating and maintenance cost for running and maintaining the equipment.

Schedule C-3. 18 summarizes the revenue and operating expenses associated with the WPAFB distribution equipment owned by DP\&L. Because WPAFB pays for this DP\&L utility plant equipment separate from its rates for basic electric service, I am proposing an adjustment to eliminate both the operating expenses relating to the distribution equipment and the revenues received from WPAFB for the use of such equipment. This adjustment is carried forward to page 4 of Schedule C-3 in column C.
Q. Is this distribution equipment owned by DP\&L that is used to serve WPAFB also excluded from rate base?
A. Yes. This is described by Company Witness Rennix and can be found on Schedule B2.5, which he sponsors.
Q. Turning to Schedule C-3.19, which reflects an adjustment to eliminate general advertising expense from the test year, could you briefly explain the purpose of this schedule?
A. This adjustment removes image building advertising costs that were included in operating expenses during the test year.
Q. Please discuss how you determined and removed image building advertising from the Company's advertising expense.
A. The Company uses different FERC accounts to separate image building advertising from instructional and safety advertising. Account 930.1 - General Advertising Expense is used for image building and 909.1 - Information and Instructional Advertising Expense is used for instruction and safety advertising. Consequently, the adjustment on Schedule C-3.19 removes all advertising included in FERC account 930.1. This adjustment is carried forward to page 4 of Schedule $\mathrm{C}-3$ in column D.
Q. Turning to Schedule C-3.20, which eliminates PUCO approved payments funded by shareholders from the test year, could you briefly explain the purpose of this schedule?
A. This adjustment removes economic development stipulation payments included in operating expenses during the test year. These payments were approved in order to fund economic development and energy efficiency programs as part of the Orders in Case Nos. 13-883-EL-POR and 12-426-EL-SSO. Per these PUCO Orders, these payments were required to be funded by shareholders and as such, should be removed from the test year
operating expenses. This adjustment is carried forward to page 4 of Schedule $\mathrm{C}-3$ in column E.
Q. Turning to Schedule C-3.21, which makes miscellaneous expense adjustments to the test year, could you briefly explain the purpose of this schedule?
A. This schedule summarizes adjustments for miscellaneous, out-of-period, and other expenses. This adjustment includes the results of a detailed review of the operation and maintenance expense accounts activity for the test year. This review was conducted to identify items recorded in the test year that were incurred outside of the test year, items miscoded to DP\&L's operating expenses, or anything else that may be viewed as not reasonably necessary to provide reliable electric service to our customers. Examples of items included in this adjustment are: some intercompany insurance costs, giveaways, sports outings, certain meals, and some dues and memberships. In addition, this schedule includes run-rate and out-of-period adjustments to adjust certain bond administrative fees and computer software costs. Run rate adjustments were calculated by determining a full year's cost using the most recent invoice or contract and comparing that to the level of expense in the test period. This adjustment is carried forward to page 4 of Schedule $\mathrm{C}-3$ in column F .
Q. Do you sponsor Schedule C-3.23, which eliminates unbilled revenue and expenses?
A. I sponsor the elimination of unbilled expenses and Company Witness Whitehead sponsors the elimination of unbilled revenues.

## Q. Please explain why unbilled expenses should be eliminated.

A. DP\&L's riders only include billed revenues when determining whether DP\&L has collected the appropriate amount of revenues to recover its costs and/or incentives such as the shared savings that are included in DP\&L's Energy Efficiency Rider. Generally Accepted Accounting Principles require that we estimate and accrue for revenues earned, but not yet billed, which are called unbilled revenues. When recording the over or under collection for each rate rider, we initially adjust the regulatory asset to only reflect billed revenues and accrued expenses to be consistent with the treatment in the rider filings. When unbilled revenues are accrued, a portion of them are attributable to the amounts DP\&L will charge its customers in the following month related to riders. Since additional revenues are being recorded for the rate riders, an additional adjustment in the Company's books and records to the related expenses being recovered is also necessary.

The adjustment on Schedule C-3.23 eliminates all of the unbilled distribution revenues, including the portions attributable to distribution rate riders. Consequently, an adjustment is also necessary to remove the accounting adjustments to expenses that were recorded to offset the impact of the unbilled rider revenue accruals. Schedule C-3.23 eliminates the net per books impact of all of the adjustments that were made in the test period to offset the impact of the unbilled rider revenue accruals. The combined impact of the revenue and expense adjustments reflected on Schedule C-3.23 is to completely remove the accounting entries related to unbilled revenues.
Q. Does Schedule C-3.23 reverse all of the accounting adjustments made during the test period related to unbilled rate rider revenues?
A. No. As I stated previously, there are certain riders that do not include any distribution revenues or expenses, such as Fuel, Competitive Bidding, and the Transmission Cost Recovery Riders. Because the revenues and costs associated with such riders are allocated to distribution at zero percent, it would have been inappropriate to reverse the unbilled impact of such riders on this schedule. Additionally, a portion of the accounting eliminations are to nonoperating expense accounts. Because nonoperating expense accounts are excluded from the revenue requirement calculated in this proceeding, it would have been inappropriate to adjust for those accounts on this schedule.
Q. Are the results of the adjustments described above reasonable, and if so, why?
A. Yes. As discussed above, the source of the information used in these adjustments is DP\&L's books and records. These booked amounts have been further reviewed for accuracy and reasonableness for purposes of this proceeding. Further, as explained above, these adjustments are necessary in order to reflect, on a normalized and annualized basis, changes in operating conditions on DP\&L's distribution system which are not fully reflected in the test year operating results. These adjustments reflect changes which are fixed in time, known to be occurring, and measurable in amount. If the respective adjustments are not made, the pro forma net utility jurisdictional operating income at present rates would not represent an appropriate basis upon which to establish new rates in this case. Therefore, the results of these adjustments are appropriate for the purpose of establishing just and reasonable base rates for the continued provision of safe and reliable electric utility service.

## 1 IV. CONCLUSION

2 Q. Does that conclude your direct testimony?
3 A. Yes.

## BEFORE THE

## PUBLIC UTILITIES COMMISSION OF OHIO

## THE DAYTON POWER AND LIGHT COMPANY

CASE NO. 15-1830-EL-AIR CASE NO. 15-1831-EL-AAM CASE NO. 15-1832-EL-ATA

## DIRECT TESTIMONY

OF CLAIRE E. HALE

[^14]
## BEFORE THE

# PUBLIC UTILITIES COMMISSION OF OHIO 

## DIRECT TESTIMONY OF

CLAIRE E. HALE<br>ON BEHALF OF<br>THE DAYTON POWER AND LIGHT COMPANY

TABLE OF CONTENTS
I. INTRODUCTION ..... 1
II. PURPOSE OF TESTIMONY ..... 2
III. STORM COST RECOVERY RIDER PROPOSAL ..... 2
IV. SCHEDULES ..... 6
IV. CONCLUSION ..... 9

## I. INTRODUCTION

Q. Please state your name and business address.
A. My name is Claire E. Hale. My business address is 1065 Woodman Drive, Dayton, OH 45432.
Q. By whom and in what capacity are you employed?
A. I am employed by The Dayton Power and Light Company ("DP\&L" or the "Company") as a Rate Analyst II.
Q. What are your responsibilities in your current position?
A. I am responsible for assisting in the development, analyses, revision, and administration of the Company's tariff schedules, rate designs, and policies. This includes participating in the development of the Company's rate cases and having responsibility for the administration of certain riders, specifically the Transmission Cost Recovery Riders, the Reliability Pricing Model Rider, and the Storm Cost Recovery Rider.
Q. Will you describe briefly your educational and business background?
A. I received a Bachelor of Science degree in Mathematics from The Ohio State University in June 2008. Prior to my position at DP\&L, I was a Technical Analyst at Accenture, where I worked on the Service Oriented Architecture Team providing client support on middleware applications. I joined DP\&L as a rate analyst in January 2011.
Q. Have you previously provided testimony before the Public Utilities Commission of Ohio ("PUCO" or the "Commission")?
A. Yes. I sponsored testimony before the PUCO in Case No. 12-426-EL-SSO.

## II. PURPOSE OF TESTIMONY

Q. What is the purpose of this testimony?
A. The purpose of this testimony is to support and explain: 1) the implementation of an ongoing Storm Cost Recovery Rider, 2) several proforma adjustments to the test year, and 3) projected rate case expense.
Q. What Schedules and Workpapers are you supporting?
A. I am supporting the following schedule and workpapers:

- Schedules C-3.15, C-3.16, C-3.22, and C-3.24
- Schedule C-5
- Schedule C-6
- Schedule C-8
- Workpapers C-3.22 and C-3.24.


## III. STORM COST RECOVERY RIDER PROPOSAL

Q. Please describe DP\&L's Storm Cost Recovery Rider proposal.
A. Consistent with this Commission's precedents in AEP Ohio's Electric Security Plan ("ESP") Case (Case No. 13-2385-EL-SSO) and Duke Energy Ohio's ESP Case (Case No. 14-841-EL-SSO), DP\&L proposes to implement a non-bypassable ongoing rider that will recover on an annual basis the costs of all major storms. Major storm costs are unpredictable, and they can vary widely based on the level and type of damage to DP\&L's distribution system. No matter the circumstances, DP\&L works to restore service to all its customers as quickly and safely as possible, and can incur significant costs in the process. Because these costs are volatile, they are difficult to predict in the budgeting process and can have a significant impact on the Company's ability to fund normal operating costs and capital spending associated with operating and maintaining its distribution system. For the same reasons, it is not possible to estimate future major storm costs for recovery through base rates. However, as those costs are reasonably and prudently incurred for the benefit of our customers and in the course of providing reliable electric service, it is appropriate for DP\&L to recover those costs in a timely manner. Therefore, DP\&L is proposing an ongoing Storm Cost Recovery Rider that will act as a true-up mechanism for all of DP\&L's major storm costs. This mechanism will allow DP\&L to defer major storm costs as they are incurred, which permits DP\&L to focus its spending on normal operating activities while still accommodating unpredictable storm costs.

## Q. How does DP\&L define a major storm?

A. To identify a major storm, DP\&L uses the definition in O.A.C $\S 4901: 1-10-01$ for a Major Event. A Major Event is an incident that causes an electric utility's daily System Average Interruption Duration Index ("SAIDI") to exceed the threshold outlined in section 4.5 of standard 1366-2003 as adopted in the "IEEE Guide for Electric Power Distribution Reliability Indices."

## Q. Which types of costs does DP\&L propose to include in its Storm Cost Recovery

 Rider?A. The rider will include all Operation and Maintenance ("O\&M") expenses that were prudently incurred to restore service after a major storm, with the exception of employee straight-time labor (both union and management). As a point of clarification, overtime

Claire E. Hale

Page 4 of 10
for both union and management employees will be included. The overtime compensation for management employees will be paid in accordance with the Company's nondiscretionary major storm restoration overtime policy. This practice is consistent with the Commission's precedents in the AEP and Duke cases referenced above, where the Commission allowed for the recovery of management labor costs resulting from this type of overtime policy.
Q. Does DP\&L propose that any major storm costs be recovered through base distribution rates, providing a "baseline" for the Storm Cost Recovery Rider?
A. No. As stated above, major storm costs are volatile and exceptional events, and DP\&L believes that no "baseline" should be used to separate major storm costs between base distribution rates and the rider. Defining a baseline requires defining a "normal" level of major storm expense. With a baseline, ratepayers fund this "normal" amount in advance, and then either receive a refund or pay more, depending on what the actual major storm costs were. However, at its heart, it is difficult to set a "normal" amount for an event that is, by definition, an exception. DP\&L's own history tells this tale; in the past ten years DP\&L's annual major storm O\&M costs have ranged from $\$ 302 \mathrm{~K}$ to almost $\$ 16 \mathrm{M}$. Such a wide range proves how unpredictable these exceptional events can be and why their costs do not belong in base rates.

Ultimately, a baseline simply splits the recovery of major storm costs into two rates, which is unnecessarily complicated. It is more efficient, and less confusing for customers, to recover all major storm costs through the Storm Cost Recovery Rider. Therefore DP\&L has employed a zero baseline in its base distribution rates by excluding all major storm costs from the test year.

Claire E. Hale

Page 5 of 10
Q. How does a zero baseline affect customer rates when compared to a non-zero baseline?
A. Ultimately, customers will pay the same amount for major storms whether that amount is paid entirely through a rider or split between base rates and a rider. The only difference between the scenarios occurs in the initial implementation of base rates. With a non-zero baseline, customer pay for some portion of major storm costs immediately, and those costs are later trued-up through the rider. With a zero baseline, customers do not pay for any major storm expenses until the true costs are known. Once recovery has commenced through the rider, customers are paying the same amount in both scenarios.

I offer the simplified illustration below:

| Major Storm Cost Recovery <br> Illustration |  | \$3M Baseline |  |  |  | \$0M Baseline |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Line | Year: | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | Recovery in Base Rates (\$M): | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | Actual Costs (\$M): | 2.0 | 1.5 | 5.0 | 3.5 | 2.0 | 1.5 | 5.0 | 3.5 |
| 3 | Deferred Difference (Ln 2 - Ln 1): | -1.0 | -1.5 | 2.0 | 0.5 | 2.0 | 1.5 | 5.0 | 3.5 |
|  | Recovery in Rider (Ln 3, Year |  |  |  |  |  |  |  |  |
| 4 | Lag): |  | -1.0 | -1.5 | 2.0 |  | 2.0 | 1.5 | 5.0 |
| 5 | Total Recovery (Ln 1 + Ln 4): | $\mathbf{3 . 0}$ | $\mathbf{2 . 0}$ | $\mathbf{1 . 5}$ | $\mathbf{5 . 0}$ | $\mathbf{0 . 0}$ | $\mathbf{2 . 0}$ | $\mathbf{1 . 5}$ | $\mathbf{5 . 0}$ |

As seen in this example, after year one the baseline is irrelevant - in both scenarios, customers simply pay the true storm costs on a one-year lag.

## Q. What true-up process does DP\&L propose?

A. DP\&L proposes that it be allowed to defer its major storm O\&M costs as they are incurred. Such costs and supporting records will be available for audit on an annual basis and then recovered over a period of one year. DP\&L proposes that it file proposed rates

Claire E. Hale

Page 6 of 10
and a summary of its major storm costs from the most recent calendar year on the following July 1 of each year, beginning the audit process with the PUCO and intervenors. This timeframe allows DP\&L to receive all invoices related to the prior calendar year's major storms and internally review and verify the costs before the PUCO audit process. The proposed rates will then be implemented October 1 of each year with the intention of full recovery occurring over the next twelve months. Carrying costs will be recorded on the expenses at the cost of long-term debt from the point of deferral until they are fully recovered.

## Q. What rate design does DP\&L propose for the Storm Cost Recovery Rider?

A. DP\&L proposes to continue recovering major storm costs on a customer charge basis, which is consistent with its current major storm cost recovery. The only change that DP\&L proposes is to switch the Private Outdoor Lighting charge from a per lamp charge to a per customer charge so that its treatment is consistent with the other classes.

## Q. Will there be a prudence review of DP\&L's major storm expenditures?

A. Yes. The issue of prudence will be addressed in each audit process.

## IV. SCHEDULES

## Q. What is shown on Schedule C-3.15?

A. Schedule C-3.15 calculates the appropriate adjustment to DP\&L's jurisdictional net operating income to include, as an operating expense, an annual $3 \%$ interest rate computed on the date certain balance of the distribution portion of DP\&L's customer deposits. Ohio Revised Code $\S 4933.17$ stipulates that $3 \%$ is the minimum interest rate an Ohio utility is required to pay to customers on deposits. This jurisdictional adjustment
results in an increase of $\$ 112,295$ in O\&M expense in the test year. The adjustment is carried forward to Schedule C-3, Page 3, Line 12, column F.

## Q. Please describe the jurisdictional adjustment on Schedule C-3.16.

A. Schedule C-3.16 shows the amortization of the estimated cost of presenting utility cases, including this rate case and DP\&L's next Standard Service Offer ("SSO") case, as an adjustment to the test year. The total expense would be deferred and amortized over two years, as this is a typical amortization period for recovery of deferred expenses. Expenses for both cases are included because both the distribution rate case and the SSO case serve the same jurisdictional customers of the distribution utility. Moreover, it is an obligation of the utility to present an SSO case, and there is no other avenue to recover the prudently incurred expense of presenting that case. Therefore the cost of both cases is reasonably recovered through base distribution rates. This jurisdictional adjustment results in an increase of $\$ 4,917,606$ in O\&M expense in the test year, which is carried forward to Schedule C-3, Page 3, Line 14, column G.

## Q. What is shown on Schedule C-3.22?

A. Schedule C-3.22 shows the major storm expenses that DP\&L incurred during the test year that must be removed from the test year in order to maintain a zero baseline for the Storm Cost Recovery Rider, as I described previously. All of such costs were incurred in the actual months of the test year and related to one major storm that damaged DP\&L's distribution network in July of 2015. The adjustment excludes any straight-time labor associated with that storm. As straight-time labor is not recoverable through a Storm Cost Recovery Rider, those labor costs should remain in the test year. This jurisdictional
adjustment results in a decrease of $\$ 429,973$ in O\&M expense in the test year, which is carried forward to Schedule C-3, Page 4, Line 11, column G.

## Q. Please describe the jurisdictional adjustment on Schedule C-3.24.

A. Schedule C-3.24 eliminates the jurisdictional portion of the company use credit from the test year. As the Company's facilities (such as DP\&L's headquarters and its service buildings) use electricity in the course of business, the cost of this use is distributed to the various areas within the Company. This cost is then allocated to various Federal Energy Regulatory Commission ("FERC") expense accounts, with an offsetting credit to expense in FERC account 929. As the cost of powering DP\&L's facilities is a prudent cost of business, the jurisdictional portion of this cost should be recoverable through base rates. Therefore the jurisdictional portion of the offsetting credit must be eliminated. This jurisdictional adjustment results in an increase of $\$ 474,610$ in O\&M expense in the test year, which is carried forward to Schedule C-3, Page 5, Line 14, column C.

## Q. What is shown on Schedules C-5 and C-6?

A. Schedule C-5 provides a detailed schedule of any social or service club dues included in the test year, while Schedule C-6 details any charitable expenses included in the test year. As no social or charitable expenses were included in the test year adjusted jurisdictional operating expenses, these schedules are not applicable.

## Q. What is shown on Schedule C-8?

A. Schedule C-8 shows the itemized expenses incurred in presenting this rate case and the next SSO case. The top half of the schedule compares these expenses to those of the two prior rate cases. The bottom half shows the amortization of prior rate case expense, if

Claire E. Hale

Page 9 of 10
this information is available to the Company. As displayed in the schedule, there are no rate case expenses included in the unadjusted test year expense. As I stated previously, DP\&L proposes to defer these utility rate case expenses and amortize them over a twoyear period, as shown in the adjustment on Schedule C-3.16.
Q. What is the source of the information shown on the above adjustment schedules?
A. The information on these schedules was developed from accounting records and budget estimates.
Q. Was the method that you used to prepare the above adjustment schedules reasonable?
A. Yes, because these schedules appropriately adjust the test year to include only the expenses that are properly recovered through base distribution rates. Each of the adjustments that I propose is limited to the jurisdictional portion needed to properly reflect the pro forma operating income at present rates. If the respective adjustments are not made, the pro forma net utility jurisdictional operating income at present rates would not represent an appropriate basis upon which to establish new rates in this case. Therefore, the results of these adjustments are appropriate for the purpose of establishing just and reasonable base rates for the continued provision of safe and reliable electric utility service.

## IV. CONCLUSION

## Q. Please summarize your testimony.

A. In summary, the Commission should grant DP\&L an ongoing Storm Cost Recovery Rider that will allow it to defer and then recover its prudent major storm costs with

3 Q. Does this conclude your direct testimony?
4 A. Yes, it does.

## BEFORE THE

# PUBLIC UTILITIES COMMISSION OF OHIO 

## THE DAYTON POWER AND LIGHT COMPANY

CASE NO. 15-1830-EL-AIR
CASE NO. 15-1831-EL-AAM
CASE NO. 15-1832-EL-ATA

DIRECT TESTIMONY
OF KEVIN L. HALL

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


## BEFORE THE

# PUBLIC UTILITIES COMMISSION OF OHIO 

## DIRECT TESTIMONY OF

KEVIN L. HALL<br>ON BEHALF OF<br>THE DAYTON POWER AND LIGHT COMPANY

## TABLE OF CONTENTS

I. INTRODUCTION ..... 1
II. PURPOSE OF TESTIMONY ..... 3
III. PRUDENCE ..... 3
IV. CONCLUSION ..... 8
I. INTRODUCTION
Q. Please state your name and business address.
A. My name is Kevin L. Hall. My business address is 1900 Dryden Rd., Dayton, Ohio 45439.
Q. By whom and in what capacity are you employed?
A. I am employed by AES U.S. Services, LLC ("AES Services"), an affiliate of The Dayton Power \& Light Company ("DP\&L"), as Director of Transmission and Distribution Engineering.
Q. How long have you been in your present position?
A. I assumed my present position in July of 2013. Prior to that time, I was Director of Operations for DP\&L with responsibility for distribution engineering, drafting, real estate services, facilities and telecommunications.
Q. What are your responsibilities in your current position?
A. In my current position, I am responsible for the safe and economical design of the distribution systems for both The Dayton Power \& Light Company and the Indianapolis Power \& Light Company. Additionally, I am responsible for the drafting, real estate and right-of-way functions of both companies. Specifically for Dayton Power \& Light, I also have responsibility for the distribution planning and transmission engineering functions as well as the capital and O\&M budgeting for the DP\&L Customer Operations group.
Q. Will you describe briefly your educational and business background?
A. I earned a Bachelor of Science degree in Electrical Engineering from the University of Cincinnati in 1991 and a Masters in Business Administration from the University of Dayton in 2005. I am a Senior Member of the IEEE ("Institute of Electrical and Electronics Engineers") and am a registered Professional Engineer ("P.E.") in the states of Ohio and Indiana.

Since June 1991, I have been continuously employed by DP\&L or its affiliate(s). From 1991 through 1995, I was assigned to the substation and transmission maintenance and construction groups as a maintenance engineer, project manager and group leader. In 1996, I was promoted to Manager of System Operating and had the responsibility of leading the real-time grid operations team through wholesale transmission access change.

Between 1999 and 2003 I was Manager of Control Area Services, responsible for the start-up of processes and systems that support both wholesale and retail settlements in the context of retail choice within the State of Ohio.

In 2004, I was designated as the Project Manager responsible for the Company's integration into the PJM Regional Transmission Organization ("RTO"). Also in 2004, I was a member of the NERC Readiness Audit Team that performed a Control Area Readiness Audit on FirstEnergy. In 2005, I was promoted to Director of Design Engineering, with responsibility for the design and engineering of the Company's distribution facilities. During the time period from 2007 through 2009, I was a member of the project team responsible for the development of DP\&L's smart grid plan which was included as part of Case No. 08-1094-EL-SSO.

# Q. Have you previously provided testimony before the Public Utilities Commission of Ohio ("PUCO" or the "Commission"), any other state commission or the Federal Energy Regulatory Commission ("FERC")? 

A. Yes. I have sponsored testimony before both the PUCO and FERC in several cases, including most recently Case No.08-1094-EL-SSO. I have previously provided written testimony before the FERC on DP\&L's Open Access Transmission Tariff.

## II. PURPOSE OF TESTIMONY

Q. What is the purpose of this testimony?
A. The purpose of this testimony is to support and explain DP\&L's distribution capital projects and expenditures. Additionally, I am supporting changes to the unmetered portions of DP\&L's tariffs D19 and D25.

## III. PRUDENCE

Q. Please provide an overview of DP\&L's electric distribution system as of September 30, 2015.
A. The distribution system used to serve DP\&L's customers as of September 30, 2015, consists of utility properties used and useful for such purposes, including approximately 122 substations feeding 491 distribution circuits, 31 additional substations dedicated to transmission or specific customers, towers, poles, conductors, transformers, station structures and equipment, meters and overhead distribution wire of approximately 10,514 miles and underground cable distribution conductors of approximately 3,636 miles.
Q. Were DP\&L's expenditures on capital projects, which resulted in distribution plant in service, reasonable and prudent?
A. Yes. DP\&L makes annual capital investments on its electric distribution system which help to achieve three goals: (1) provide infrastructure to serve new or growing customers and load; (2) maintain or improve the overall condition of the distribution infrastructure (replacements) and any supporting assets; and (3) return to service failed assets, such as those suffering from catastrophic equipment failures or damage from storms. Those expenditures were prudent in light of the condition of DP\&L's distribution system, and were necessary to allow DP\&L to continue to provide reliable services to its customers.
Q. Is the equipment on which DP\&L seeks a return in this case used and useful?
A. Yes. Per internal DP\&L policy, as capital projects are completed, the project manager(s) must submit appropriate documentation to the Fixed Asset Accounting area indicating the assets that were placed in service and the date in which they were placed in service.

## Q. Were DP\&L's expenditures reasonable in amount?

A. Yes. The materials, labor and other resources used to complete capital projects are obtained through the efforts of the supply chain organization who ensure that such materials and services meet the quality and technical standards as well as delivery schedule specified and are competitively priced.
Q. What types of projects are included within DP\&L's capital expenditures?
A. There are numerous types of projects that make up DP\&L's capital investments on an annual basis. They are first categorized by the expenditure amount. Any project less than $\$ 100,000$ is captured in a Blanket Budget. Projects greater than $\$ 100,000$ are categorized as "Specific Projects" and assigned their own budget number. Blanket budget projects include providing new or upgraded services to customers, planned replacements, forced replacements (failures and storms), meter installations and transformer installations. Additionally, DP\&L has capital programs designed to maintain or replace key electric distribution system infrastructure including poles, underground cable, cutouts and network equipment, among others.

## Q. What are Specific Projects?

A. Specific Projects are projects with a cost greater than $\$ 100,000$. Specific Projects range in scope from infrastructure required to serve customers with larger loads to new or upgraded distribution circuits as well as electric infrastructure relocations.
Q. Are the Blanket Budget Projects and Specific Projects described above typical for DP\&L in any budget year?
A. Yes. DP\&L's annual capital budget is typically made up of the types of projects described above. The amount of spending within each category or group of projects varies somewhat year-over-year based on factors that include economic conditions, localized load growth, equipment failure rates, and storm activity.

## Q. How is Contribution In Aid to Construction ("CIAC") determined for capital projects?

A. For customers requiring new service, CIAC is addressed according to the Commission's rules, which are incorporated into DP\&L's Tariff Sheet No. D12 "Extension of Electric Facilities." There are other situations where a customer desires to relocate their service or a third party asks DP\&L to move or relocate its facilities. In those situations, CIAC is determined based on DP\&L's tariff as well as existing rights-of-way. In any situation where CIAC is applicable, the payment from the requesting entity is credited to that specific project's work order. In that way, net plant in service is reflective of all CIAC payments.
Q. Is the Company proposing to eliminate its unmetered service provisions in Tariff Sheets D19 and D25?
A. Yes. The Company's tariff for secondary electric distribution service less than 5 kW and for street lighting permitted the customer to have an unmetered service and be billed based on a usage calculation that assumed uniformity of consumption. Due to the logistics of tracking and managing unmetered service points, particularly changes to those service points, the Company is proposing to eliminate unmetered services. All new services will be metered.

## Q. What are the circumstances that have caused the Company to propose elimination of its unmetered service?

A. The nature and characteristic of an unmetered service is subject to change in terms of demand, usage and uniformity. Customers can change the characteristics of their load, such that they have more or less demand, or they change their consumption patterns. As technology continues to change and as the nature of the use of these unmetered service points continues to change, we believe it is in the best interest of both the Company and its customers to bill for distribution service based on actual usage.

Unfortunately, unless the customer notifies the Company that its load has changed, the customer will continue to be billed for the previous consumption. For example, a customer can install a new traffic signal system that is more energy efficient than the prior one. If the customer does not notify the Company that the load at the service point has changed, the customer will continue to pay the same amount despite their lower consumption.

Street lighting is even more challenging when it comes to tracking the characteristics of the load at the service point. The customer can add lights to its street lighting account and the Company may never know it. Thus, the customer will continue to be billed the same amount, despite greater usage. Conversely, if the customer replaces their street lights with more energy efficient lighting and does not notify the Company, they do not receive the benefit of reduced usage.

Moving to a policy requiring metering of all new service points ensures that the Company is billing its services accurately and the customer is paying for what it is using.

## Q. What is the Company's plan regarding existing unmetered service points?

A. Should the tariff revisions be approved in sheets D19 and D25, the Company will continue to let existing unmetered service points remain unmetered provided the following provisions are followed: (1) the customer is required to validate in writing its type of use and quantity of load at each unmetered service point within 6 months of the effective date of the tariff; (2) the customer is required to validate in writing its type of use and quantity of load at each unmetered service point annually thereafter.

## IV. CONCLUSION

Q. Please summarize your testimony.
A. In summary, the Company makes capital investments in its distribution system that functions to serve new or growing load, maintain or improve the overall condition of its distribution plant and return to service any failed assets due to failures or storms. The equipment and expenditures for which DP\&L seeks a return are used and useful and reasonable in amount. Additionally, due to the changing nature of unmetered loads, including the advancement of technologies, the Company has proposed to eliminate its unmetered service provisions.
Q. Does this conclude your direct testimony?
A. Yes, it does.


[^0]:    - MANAGEMENT POLICIES, PRACTICES, AND ORGANIZATION
    - OPERATING INCOME
    - RATE BASE
    - ALLOCATIONS
    $\square$ RATE OF RETURN
    - RATES AND TARIFFS
    - OTHER

[^1]:    - MANAGEMENT POLICIES, PRACTICES, AND ORGANIZATION
    - OPERATING INCOME
    - RATE BASE
    - ALLOCATIONS
    - RATE OF RETURN
    - RATES AND TARIFFS
    - OTHER

[^2]:    ${ }^{1}$ See The Dayton Power \& Light Company's Proposed Tariff Sheet No. D14, Electric Distribution Service, General Service Rules and Regulations, Definitions and Amendments, pages 3-4.

[^3]:    ${ }^{2}$ See Chapter 6, Section II, pages 90-96.
    ${ }^{3}$ Classification of FERC account 366 , underground conduit, is based on analysis of other accounts. Such practice is common classification methodology.

[^4]:    

[^5]:    Calculated systematic billing lag

[^6]:    Calculated systematic billing lag

[^7]:    [a] Payment amount for each month was obtained from management.
    [b] Weighted average of the lags between the end of the month and the date the ODSA was billed.
    [c] Meter/usage is entered into DataMart throughout the month. The average time each month between when the customers usage is entered
    and the ODSA is not billed until the following month is accounted for by, using the average midpoint of all the months during the year.
    ( 365 days/12months/2midpoint of the month)
    [d] Weighted average billing lag incorporating the month for which the ODSA portion of PIPP customer usage is entered into DataMart but not invoiced to the ODSA until the following month and the days into the following month until the ODSA is invoiced.
    [e] Date of the invoice for the ODSA was obtained from management.

[^8]:    [a] Payment amount for each month was obtained from management.
    [b] Weighted average of the lags between the end of the month and the date the ODSA was billed.
    [c] Meter/usage is entered into DataMart throughout the month. The average time each month between when the customers usage is entered and the ODSA is not billed the following month and the days into the following month until the ODSA is invoiced. [e] Date of the invoice for the ODSA was obtained from management.

[^9]:    [a] Payment amount was obtained from the A/P detail.
    [b] Last day of the month pertaining to the payment made to the ODSA.
    [c] Date of the payment made to the ODSA, as traced to the client's bank statements.
    [d] Weighted average of the collection lags associated with the payments made to the ODSA.

[^10]:    ## Tickmark Legend

    A Taken or calculated from the management prepared Payroll Activities schedule
    B Traced to the general disbursement bank account statement for the appropriate period.
    C Due to this pay period encompassing a time both outside and within the study year, this expense has been pro-rated to include only the amount accrued during the study year.

[^11]:    [a] Period covered represents the semice period of the invice. Each period was agreed to the respective invoice.

[^12]:    Tick Traced and agreed to bank statements.
    B Traced and agreed to the "Pmt Applied" field for each payment for each month.

[^13]:    Tickmark Legend
    A Taken from the Tax Report.
    B Traced and agreed to the clear date on the appropriate bank statement.
    C Traced and agreed to both the Tax Report and the appropriate bank statement.
    D These two items are combined in one line item on the bank statement dated 11/07/2013.
    E These three items are combined in one line item on the bank statement dated 06/13/2014.

[^14]:    - MANAGEMENT POLICIES, PRACTICES, AND ORGANIZATION
    - OPERATING INCOME
    - RATE BASE
    - ALLOCATIONS
    $\square$ RATE OF RETURN
    - RATES AND TARIFFS
    - OTHER

