

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

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

**DIRECT TESTIMONY OF
EMILY S. MEDINE
PRINCIPAL
ENERGY VENTURES ANALYSIS, INC.**

**ON BEHALF OF
MURRAY ENERGY CORPORATION**

1 **INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Emily Medine. I am a Principal with Energy Ventures Analysis, Inc. (EVA). EVA’s
4 corporate address is 1901 N. Moore Street, Suite 1200, Arlington, VA 22209.

5 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

6 A. The purpose of my testimony is to explain why the unilateral decision to close Killen and Stuart
7 power plants has not been justified, is not in the public interest, and is likely to have extreme
8 negative economic consequences for Dayton Power & Light (DP&L) ratepayers and the public
9 interest.

10 **Q. ON WHOSE BEHALF ARE YOU FILING YOUR TESTIMONY?**

11 A. I am filing this testimony on behalf of Murray Energy Corporation.

12 **Q. WHAT IS YOUR EDUCATIONAL AND WORK BACKGROUND?**

13 A. I have a BA from Clark University and a Masters in Public Affairs (MPA) from the Woodrow
14 Wilson School of International and Public Affairs at Princeton University. I concentrated in
15 domestic energy policy in graduate school. While at Princeton, I worked at Brookhaven National
16 Laboratory on coal policy. I spent three years at Energy and Environmental Analysis, a
17 consulting firm, ultimately as project manager on two large government projects, one for the
18 Environmental Protection Agency (EPA) on new source performance standards for industrial
19 boilers and one for the Department of Energy evaluating the financial capability of power plants
20 which had converted their coal boilers to fire oil back to coal. I joined Consolidation Coal
21 Company (now Consol Energy) in 1982 where I held several positions including Strategic Studies
22 Coordinator and Assistant District Sales Manager. In 1987, I joined Energy Ventures Analysis,

1 Inc. (EVA) with whom I am currently a principal. I focus on market analysis, fuel procurement
2 strategies, and acquisition and divestment support. My clients include producers, consumers,
3 transporters, agencies of the U.S. government, state governments, and trade associations. I
4 have performed over 50 management/performance audits of fuel procurement practices, many
5 of which have been performed on behalf of the Staff of the Public Utilities Commission of Ohio
6 (PUCO). I provide expert testimony in coal market disputes. I am a regular presenter on energy
7 markets at industry meetings. My resume is provided in Appendix A.

8 **Q. HAVE YOU PREVIOUSLY PRESENTED TESTIMONY BEFORE THE COMMISSION?**

9 A. Yes. I have testified multiple times before the Commission. In the last 30 years, EVA has
10 performed 34 Management/Performance Audits of the Ohio utilities. I have been involved in all
11 of them with one exception. An audit report was filed for each audit. I have testified in the
12 cases that have gone to hearing. I have also testified on behalf of Staff in Case No. 10-2929 and
13 on behalf of the Ohio Consumers' Counsel in Case Nos. 08-917-EL-SSO and 08-918-EL-SSO.

14 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

15 A. I first provide general conclusions which are followed by background on DPL&L and its holding
16 company DPL Inc. (DPL), The AES Corporation (AES), a review of DP&L generating assets, a
17 review of deregulation in Ohio and the related impacts on DP&L, a review of DP&L's proposed
18 ESP III, the Stipulation, and the impact of the closure of Killen and Stuart.

19 **CONCLUSIONS**

20 **Q. PLEASE SUMMARIZE YOUR CONCLUSIONS**

- 1 1. DPL's heavy debt burden which is in part behind the ESP request is due at least in part to
2 AES's over-payment for DPL.
- 3 2. DPL and presumably AES since its 2011 acquisition of DPL were aware of the
4 requirement under SB221 to divest of generation.
- 5 3. The other three Ohio affected utilities completed their divestiture commitments by the
6 end of 2014. AES indicated it came close to divesting the DP&L generation in 2014 but
7 decided to hold the generation hoping for the value of the assets to improve.
- 8 4. In 2014, at least one rating agency, Moody's, indicated concerns about AES's credit
9 ratings given a sale or transfer of DP&L generation.
- 10 5. AES assumed the risk of its purchase of DPL and the associated risk with the delay in
11 divestiture. The divestiture either to a third party or an unregulated affiliate was to be
12 completed by January 1, 2017.
- 13 6. In February 2016, DP&L filed for a new ESP (ESP III) which provided for support for its
14 coal-fired generation for a 10-year period. DP&L claimed its coal-fired generation was
15 critical in many respects and its loss would have severe economic consequences.
- 16 7. Considerable opposition to the ESP III resulted in negotiations with many parties as to a
17 compromise. A Stipulation was ultimately negotiated with only nine of the 27 parties
18 that participated in the negotiations. Notably the Staff of the PUCO, the Office of
19 Consumers' Counsel as well as other material parties were not signatories to the
20 Stipulation.

- 1 8. The same day the Stipulation was docketed (January 30, 2017), DP&L and the Sierra
2 Club issued press releases stating that they had come to an agreement that would allow
3 the Sierra Club to support the Stipulation. The agreement was that DP&L would close
4 the Killen and Stuart stations in mid-2018. No other information about the closures was
5 provided by the press releases or since.
- 6 9. On February 6, 2017, testimony was filed by a DP&L witness and a DP&L-engaged expert
7 witness about the Stipulation. Both pieces of testimony referred to the Stipulation
8 containing the plant closure provisions. Neither piece of testimony provided any
9 analysis as to whether the plant closures were the best outcome for DP&L ratepayers or
10 the local communities in which the two power plants reside.
- 11 10. There is no indication that the decision to close the DP&L stations has any advantage
12 over a sale to a third party other than garnering Sierra Club support for the Stipulation.
- 13 11. No details about the proposed closure of Killen and Stuart have been provided. For
14 example, it is not known in what corporate entity they will reside until closure, it is not
15 known how the joint owners will or will not participate, and it is not known how the
16 capacity commitments to PJM are to be addressed.
- 17 12. The closure of Killen and Stuart is likely to increase power prices to DP&L customers.
- 18 13. The closure of Killen and Stuart will have severe economic consequences on the
19 communities in which the plants reside.
- 20 14. Both the Killen and Stuart stations could be sold. Potential buyers include private
21 equity, merchant generators, and strategic players including coal producers.

1 **BACKGROUND ON DAYTON POWER & LIGHT**

2 **Q. WHAT IS DAYTON POWER & LIGHT?**

3 A. DP&L is a public utility as defined in Section 4905.02, Revised Code, and, as such, is subject to
4 the jurisdiction of the Public Utilities Commission of Ohio (PUCO). DP&L is a wholly-owned
5 subsidiary of DPL, Inc. In 2011, AES acquired 100 percent of the common stock of DPL for an
6 approximate payment of \$3.5 billion plus the assumption of \$1.255 in liabilities.

7 **Q. WHO IS AES?**

8 A. AES, founded in 1985, is now a global energy company with generation and distribution
9 businesses across four continents. Starting with three independent power producers in the U.S.,
10 AES rapidly expanded both within the U.S. and internationally. AES reports it has operations in
11 17 countries across four continents, 35 GW of generating capacity, seven utility companies and a
12 global workforce of approximately 21,000. In 2015, AES reported annual revenues of \$15
13 billion.

14 **Q. WHAT REASONS DID AES PROVIDE FOR ITS ACQUISITION OF DPL?**

15 A. AES prepared an Investor Presentation on its acquisition of DPL Inc.¹ The presentation dated
16 April 20, 2011, provided several rationales for the acquisition. AES indicated the acquisition was
17 consistent with AES Growth Strategy in that the acquisition would be accretive to earnings year

¹ http://s2.q4cdn.com/825052743/files/doc_presentations/2011/04-20-11-Investor-Presentation_FINAL.pdf

1 one (excluding acquisition costs), it supported its M&A strategy “in regulated utilities, using (its)
2 existing platform at IPL², and it was supported by AES’ advantageous tax position.

3 **Q. WHAT IS IPL?**

4 A. IPL is Indianapolis Power & Light Company. It is a fully-regulated utility which AES acquired in
5 2000. In 2014, AES sold a minority interest in IPL to CDPQ, an institutional investor
6 headquartered in Quebec, Canada for \$595 million reportedly to generate cash for its capital
7 expenditure program.³

8 **Q. DID AES ACKNOWLEDGE THE DIFFERENT REGULATORY ENVIRONMENTS FOR IP&L AND DP&L**
9 **IN THE INVESTOR PRESENTATION?**

10 A. From the Financial Presentation AES indicated that while DP&L’s transmission and distribution
11 (T&D) business was fully regulated, DP&L generation would continue to receive financial support
12 through an Electric Security Plan (ESP). AES gave no indication that the ESP was intended only
13 for a transition period or of DP&L’s obligation to divest of its generation under Senate Bill 221
14 (SB221).

15 **Q. DO YOU THINK AES THOUGHT IT WAS ACQUIRING A FULLY REGULATED UTILITY?**

16 A. I am not sure. The high price AES paid, the statements in the Financial Presentation, and the
17 goodwill impairment of over \$1.8 billion in 2012 suggest that might have been the case.

18 **Q. WHAT DO YOU MEAN ABOUT THE HIGH PRICE?**

² The Financial Presentation also said the acquisition supported AES’ strategy to “(m)ake additional rate base investments in regulated utility business.”

³ <http://www.businesswire.com/news/home/20141215005378/en/AES-Announces-Agreement-Sell-Minority-Interest-IPALCO>

1 A. AES paid about \$4.7 billion for DPL. AES indicated in its 2011 10-K filing⁴ the preliminary
 2 allocation of the purchase price to the fair value of assets acquired and liabilities assumed is as
 3 follows (in millions):

Cash	116
Accounts receivable	278
Inventory	124
Other current assets	41
Property, plant and equipment	2,549
Intangible assets subject to amortization	166
Intangible assets—indefinite-lived	5
Regulatory assets	201
Other noncurrent assets	58
Current liabilities	(401)
Non-recourse debt	(1,255)
Deferred taxes	(558)
Regulatory liabilities	(117)
Other noncurrent liabilities	(195)
Redeemable preferred stock	(18)
Net identifiable assets acquired	994
Goodwill	2,489
Net assets acquired	3,483

4
 5 As noted in the table above, the Property, plant and equipment (PP&E) was \$2.5 billion, about
 6 the same as goodwill. The PP&E includes the generating assets in addition to the Transmission
 7 and Distribution assets. AES acknowledged the goodwill was high and indicated that the
 8 reasons for the sizable goodwill “include, but are not limited to: the ability to expand the U.S.
 9 utility platform in the Mid-West market, the ability to capitalize on utility management
 10 experience gained from IPL, enhanced ability to negotiate with suppliers of fuel and energy, the
 11 ability to capture value associated with AES’ U.S. tax position, a well-positioned generating fleet,
 12 the ability of DPL to leverage its assembled workforce to take advantage of growth.” As noted
 13 above, the U.S. platform to which AES was referring was a regulated utility.

⁴ http://s2.q4cdn.com/825052743/files/doc_financials/annual/2011/02-24-12%2010-K_FINAL.PDF

1 In 2012, AES took a goodwill impairment charge of \$1.82 billion for DPL and obtained a waiver
2 and amendment to certain of its loan documents, which included new covenants and various
3 restrictions on DPL’s ability to distribute dividends to AES. AES noted in its 2012 10-K filing that
4 it had “not realized the anticipated benefits and cost savings of the DPL acquisition, and DPL
5 continues to face business and regulatory challenges.”⁵

6 **Q. HOW DID AES FINANCE THE DPL PURCHASE?**

7 A. AES indicated in its 2011 10-K that it funded the purchase through a combination of the
8 following:

- the proceeds from a \$1.05 billion term loan obtained in May 2011;
- the proceeds from a private offering of \$1.0 billion notes in June 2011;
- temporary borrowings of \$251 million under its revolving credit facility; and
- the proceeds from private offerings of \$450 million aggregate principal amount of 6.50% senior notes due 2016 and \$800 million aggregate principal amount of 7.25% senior notes due 2021 (collectively, the “Notes”) in October 2011 by Dolphin Subsidiary II, Inc. (“Dolphin II”), a wholly-owned special purpose indirect subsidiary of AES, which was merged into DPL upon the completion of acquisition.

9

10 **DP&L GENERATING ASSETS**

11 **Q. WHAT ARE DP&L’S CURRENT GENERATING ASSET?**

⁵ http://s2.q4cdn.com/825052743/files/doc_financials/annual/2011/02-24-12%2010-K_FINAL.PDF

1 A. Most of DP&L's coal generating capacity was developed in concert with two other utilities:
2 Columbus Southern Power (which merged with Ohio Power in 2011) and Cincinnati Gas &
3 Electric (which became Cinergy in 1994 when it merged with Public Service of Indiana and Duke
4 Energy Ohio when Cinergy was purchased by Duke Energy in 2006). These units were referred
5 to initially as CCD units because of their ownership. All of the remaining coal assets, except for
6 DP&L's ownership share of OVEC, are CCD plants. The operating owner, with consultation from
7 its partners, manages the plants.

8 The CCD plants which were viewed at the time as a risk management tool have turned out to be
9 problematic with respect to the sale of the non-operating owners position. Dynegy just
10 announced a trade of its ownership in Conesville #4 for AEP's ownership in Zimmer.⁶ In 2014,
11 DP&L sold its position in East Bend to Duke Energy Kentucky.⁷

12 OVEC is the Ohio Valley Electric Corporation which owns two power plants: Clifty Creek and
13 Kyger Creek. OVEC and the Indiana-Kentucky Electric Company (IKEC) were formed by several
14 investor-owned utilities in the 1950's to supply the tremendous electrical needs of a gaseous
15 diffusion plant plant. As the power needs for the atomic plant declined, the electricity
16 increasingly moved into the power market. OVEC and IKEC merged into OVEC. DP&L's
17 ownership share of OVEC is relatively small.

18 DP&L's current generating assets are listed below⁸.

⁶ <http://www.crossroadstoday.com/story/34588953/aep-and-dynegy-to-transfer-ownership-of-co-owned-power-plants>

⁷ The purchase price was reported to be \$12.4 million for the 186 MW.
<http://www.cincinnati.com/story/money/2014/12/08/duke-east-bend/20098047/>

⁸ In recent years, DP&L closed its solely-owned Hutchings station and sold its share of East Bend. In addition, it lost its Beckjord generation when that plant was retired by Duke Energy Ohio.

Operator	Plant Name	Units	Location	DP&L Ownership %	Capacity (MW)		Fuel Type
					Total	DP&L Share	
COAL GENERATING ASSETS							
Dayton P&L	J.M. Stuart	1-4	Aberdeen, OH	35%	2,308	808	Coal
Dayton P&L	Killen	2	Wrightsville, OH	67%	600	402	Coal
AEP Generation Resources	Conesville	4	Conesville, OH	17%	780	129	Coal
Dynergy Ohio	Miami Fort	7,8	North Bend, OH	36%	1,020	368	Coal
Dynergy Ohio	Zimmer	1	Moscow, OH	28%	1320	371	Coal
OVEC	Clifty Cr/Kyger Cr	All	Madison, IN/Cheshire, OH	4.9%	2109	103	Coal
TOTAL					8,137	2,181	
OTHER GENERATING ASSETS							
Dayton P&L	O.H. Hutchings CT	7	Miamisburg, OH	100%	23	23	NG
Dayton P&L	JM Stuart IC	1-4	Aberdeen, OH	35%	8.8	3	DFO
Dayton P&L	Killen CT	1	Manchester, OH	67%	18	12	DFO
Dayton P&L	Frank M Tait GT	1-3	Moraine, OH	100%	256	256	NG
Dayton P&L	Frank M Tait IC	1-4	Moraine, OH	100%	10	10	DFO
Dayton P&L	Monument IC	1-5	Dayton, OH	100%	12	12	DFO
Dayton P&L	Sidney IC	1-5	Sidney, OH	100%	12	12	DFO
Dayton P&L	Yankee Street GT	1-7	Centerville, OH	100%	94	94	NG
TOTAL					434	422	

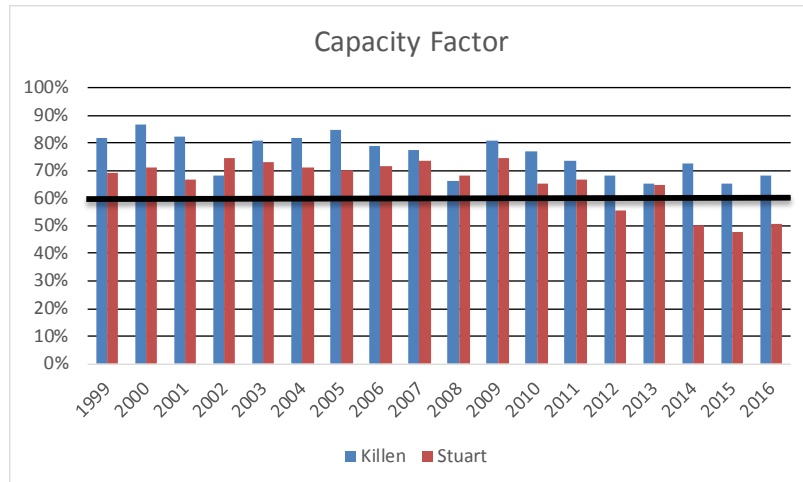
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2 **Q. ARE BOTH STUART AND KILLEN STATIONS CONSIDERED TO BE BASE LOAD GENERATION?**

3 A. Yes.⁹ Killen has had a capacity factor greater than 60 percent in every year during the 1999
4 through 2016 H1 period.¹⁰ Stuart historically had a capacity factor greater than 60 percent but
5 has struggled in recent years. Capacity factor is the ratio of actual generation to potential
6 generation and a good indicator of plant performance.

⁹ Killen was built as an intermediate load plant meaning it was designed with greater capabilities to follow load but it has operated as a base load plant through most of its life.

¹⁰ EIA 923 data, EVA calculations



1

2

3 **Q. HAS THE POOR PERFORMANCE AT STUART SINCE 2014 BEEN A CONCERN FOR DP&L?**

4 A. Yes. The Public Version of the Management/Performance Audit of Fuel and Purchased Power for
 5 the calendar year 2014 raised poor performance at Stuart as a major concern. The Public
 6 Version of the report stated:

7 *Poor performance at Stuart has been a major issue for DP&L over the last year. In*
 8 *response to EVA -2014-OS-5 which asked for DP&L's strategy to improve performance,*
 9 *DP&L indicated it adopted a multi-faceted approach that includes the following:*

- 10 • *Significant restructuring of the DPL Generation team in early 2015 including a new Vice*
 11 *President of Generation, a new Director of Planning, Outages & Engineering, a new*
 12 *Stuart station manager, and new managers in many of the key plant roles*
- 13 • *Complete reorganization of the Stuart team to create a more team-driven, performance*
 14 *based business*
- 15 • *Improved culture within the business*

- 1 • *Development of an improved Asset Life Cycle Program that matches the challenging*
2 *operations using ILB coal as a main source of fuel*

3 *While DP&L's admission of problems is quite remarkable, it seems largely driven by (a) the*
4 *lack of market interest in acquiring the assets at values acceptable to AES and (b) the poor*
5 *performance in 2014. In 2014, the Equivalent Forced Outage Rate (EFOR) for Stuart was 21.5*
6 *percent versus the stated corporate target of 6-7 percent.*¹¹

7
8 The two points of particular interest are that the situation was sufficiently poor that DP&L
9 restructured its generation team and replaced the Stuart station manager and the EFOR was
10 very poor with respect to DP&L's targets.

11 **Q. WERE THE PROBLEMS AT STUART IN 2014 RELATED TO THE LOW PRICE OF NATURAL GAS?**

12 A. Not particularly in 2014. The capacity factor for Killen in 2014 was over 70 percent which was
13 not only high but higher than the capacity factor in 2013. Had low gas prices been an issue in
14 2014, Killen's capacity factor would have also been affected.

15 **Q. DID THE PUBLIC VERSION OF THE MANAGEMENT/PERFORMANCE AUDIT IDENTIFY ANY FUEL-**
16 **RELATED ISSUES AT STUART?**

17 A. The Stuart plant was designed for lower sulfur coals which are characterized by high fusion
18 temperatures. When the plant was being retrofit with scrubbers, it was believed that the plant
19 would burn a blend of high sulfur and low sulfur coals because of the boiler design and concerns
20 about slagging and fouling with the lower fusion high sulfur coals. Due to the price differential
21 between low and high sulfur coals, DP&L ultimately went to almost 100 percent high sulfur

¹¹ <http://dis.puc.state.oh.us/TiffToPDF/A1001001A15J02B10439H00932.pdf>

1 coal.¹² The Public Version of the Management/Performance audit spoke to DP&L’s struggle with
2 slagging issues which is fuel related.

3 **DEREGULATION IN OHIO AND DP&L**

4 **Q. CAN YOU PROVIDE A BRIEF HISTORY OF DEREGULATION START IN THE STATE OF OHIO?**

5 A. Deregulation of the power industry in Ohio started in 1999 with Senate Bill 3 (SB3) which
6 required that consumers be given a choice with respect to their energy provider.¹³ The law took
7 effect in 2001 at which time customers could choose to buy energy from a Certified Retail
8 Electric Supplier (CRES). The law required a five percent residential rate reduction and rate
9 freeze until 2005. In 2005, the PUCO determined that there had been insufficient growth in
10 market activity and extended the transition period. In May 2008, Senate Bill 221 (SB221) was
11 enacted which required utilities to offer a Standard Service Offer (SSO) to customers who did
12 not choose a CRES.¹⁴ The PUCO had the obligation to ensure the SSO was fair and reasonable.
13 Meanwhile, the utilities got to choose whether their SSO should be established through an
14 Electric Security Plan (ESP) or a Market Rate Offer (MRO). The four regulated utilities (Dayton
15 Power & Light, Duke Energy Ohio, FirstEnergy, and Ohio Power) ended up with ESP’s¹⁵, which is
16 more akin to a traditional rate plan. ESP’s require the utility to secure its energy for its SSO
17 customers through competitive wholesale auctions. **SB221 further required each utility to**
18 **divest their power generation operations** and become solely an electric distribution utility.
19 The divestment which was completed for all utilities except DP&L comprised both transfers to
20 unregulated affiliates and sales to third parties.

¹² EIA 923 data, <https://www.eia.gov/electricity/data/eia923/>

¹³ This is not intended to be a legal summary.

¹⁴ SB 221 implementing rules contained targets relating to advanced energy portfolio standards, renewable energy, demand reduction and energy efficiency standards.

¹⁵ Several of the utilities had applied for MRO’s but ultimately switched to ESP’s.

1 **Q. CAN YOU SUMMARIZE DP&L'S EXPERIENCE UNDER DEREGULATION BEGINNING IN 2006?**

2 A. Consistent with the state deregulation plans, DP&L's rates were set pursuant to a rate
3 stabilization plan (RSP) from January 1, 2006 through December 31, 2008 (RSP Stipulation).
4 Under the RSP, DP&L's fuel rate was fixed and included in the base retail generation rates.¹⁶

5 On October 10, 2008, DP&L filed an application for SSO in the form of an ESP. A stipulation
6 approved by the PUCO extended the DP&L rate plan through December 31, 2012 (subsequently
7 extended by a year) and allowed DP&L among other things to implement a by-passable fuel
8 recovery rider to recover jurisdictional fuel and purchased power costs consistent with the
9 provisions of SB221.

10 A second ESP (ESP II) for DP&L was approved on September 4, 2013 for the period beginning
11 January 1, 2014 and ending May 31, 2017. The order established a schedule under which DP&L
12 would conduct auctions to procure power to serve its SSO customers, which transitioned to 100
13 percent by the end of the ESP II period. At the end of the ESP II, the company was expected to
14 have divested its generation assets. A service stability rider (SSR) was established to provide a
15 SSO standard service offer as DP&L divested its generation assets during the term of the ESP II.
16 The SSR was intended to collect \$330 million during the three-year period 2014 through 2016.
17 ESP II provided DP&L with an option to seek future approval from the PUCO for a five-month
18 extension not to exceed \$45.8 million.

19 Several parties filed for rehearing on ESP II and on March 19, 2014 the PUCO determined that
20 DP&L's phase-in to full competitive pricing for SSO generation requirements should be
21 accelerated. The PUCO based its ruling upon DP&L's February 25, 2014 supplemental filing in a
22 separate proceeding (Case No 13-2420-EL-UNC) that addressed the company's proposal to

¹⁶ This is not intended to be a legal summary.

1 transfer or sell its generating assets. In that supplemental filing, **DP&L indicated that the**
2 **company and "its indirect parent, The AES Corporation (AES), have recently begun to evaluate**
3 **the transfer of DP&L's generation assets to an unaffiliated third party through a potential sale.**
4 **A sale to a third party could occur as early as 2014.**¹⁷ The PUCO, therefore, determined that
5 the competitive bid process (CBP) should account for 60 percent of load beginning January 1,
6 2015 (up from 40 percent); and, 100 percent of load beginning January 1, 2016 (up from 70
7 percent). Also, the PUCO determined on rehearing that the deadline for the company to divest
8 its generation should be no later than January 1, 2016. In June, the PUCO further modified its
9 orders and established December 31, 2016, as the date by which DP&L will complete the sale or
10 transfer of its generation assets.

11 On February 22, 2016, DP&L filed for an ESP that would be in effect beginning January 1, 2017.
12 As part of this filing, DP&L was seeking a Reliable Electricity Rider for 10 years, based on the
13 variance between the proposed revenue requirement and the actual revenues net of operating
14 costs of the generation units. The proposed plan established the terms and conditions for
15 DP&L's SSO beginning June 1, 2017 to customers that did not choose a CRES. In its plan, DP&L
16 recommended including renewable energy attributes as part of the product that is competitively
17 bid, and seeks recovery of approximately \$10 million of regulatory assets. The plan also
18 proposed a new Distribution Investment Rider to allow DP&L to recover costs associated with
19 future distribution equipment and infrastructure needs. Additionally, the plan established new
20 riders set initially at zero, related to energy reductions from DP&L's energy efficiency programs,
21 and certain environmental liabilities the Company may incur. It is this application, as modified
22 by the negotiated stipulation, which is the subject of these proceedings.

¹⁷ <http://dis.puc.state.oh.us/TiffToPdf/A1001001A14B25B63152E19165.pdf>

1 **ESP III APPLICATION AND STIPULATION**

2 **Q. WHAT IS THE STATUS OF THE ESP III APPLICATION?**

3 A. There was considerable opposition to the February 2016 Application with multiple parties filing
4 testimony in opposition to one or more parts. It is my understanding that the parties have
5 negotiated for months to find common ground. AES reported in its third quarter 2016 Financial
6 Presentation that DP&L had amended its ESP filing to propose a Distribution Modernization
7 Rider of \$145 million per year over seven years targeting Investment Grade rating at the
8 utility.¹⁸ On January 30, 2017, DP&L filed a Stipulation which DP&L represented involved
9 negotiations with 27 parties although there were only nine signatories. Also on January 30,
10 2017, DP&L and the Sierra Club each issued press releases that spoke to the Stipulation and
11 noted an agreement to shutter the Killen and Stuart power plants in 2018 would result in the
12 Sierra Club adding its support to the Stipulation.

13 The Sierra Club press release noted:

14 *In addition to these provisions, Sierra Club and DP&L have reached agreement in*
15 *principle on terms that would retire the Killen and Stuart coal plants in June 2018 due to*
16 *economic reasons.*¹⁹

17 The DP&L press release noted:

18 *In addition, the Company and Sierra Club have reached agreement in principle that will*
19 *add Sierra Club to the list of parties agreeing to settlement. Upon completion of a few*

¹⁸ cs2.q4cdn.com/825052743/files/doc_presentations/2016/AES-Q3-2016-Financial-Review.pdf

¹⁹ <http://content.sierraclub.org/press-releases/2017/01/dpl-agrees-invest-clean-energy-signaling-agreement-retire-stuart-and-killen>

1 *remaining details, DP&L anticipates Sierra Club will formally join the settlement later this*
2 *week, as well as one other party.*²⁰

3 **Q. HAS A REVISED STIPULATION BEEN FILED?**

4 A. Not as of the date of the submission of this testimony. It appears that DP&L is now saying that
5 a revised stipulation may not be docketed and that its agreement with the Sierra Club is outside
6 the stipulation.²¹

7 **Q. IF THERE IS A SIDE AGREEMENT BETWEEN THE SIERRA CLUB AND DP&L WHICH WAS**
8 **REQUIRED FOR THE SIERRA CLUB TO SUPPORT THE STIPUALTION, WOULD YOU CONSIDER THE**
9 **SIDE AGREEMENT PART OF THE STIPULATION?**

10 A. Any side agreement between parties that is a pre-requisite for Sierra Club support of the
11 Stipulation is almost by definition part of the Stipulation

12 **Q. HAS ANY TESTIMONY BEEN SUBMITTED RELATED TO THE REVISED STIPULATION?**

13 A. Yes. On February 6, 2017, Company Witness Sharon Shroder and Company Expert Witness R.
14 Jeffrey Malinak submitted testimony in support of the Stipulation and Recommendation of the
15 Stipulation.

16 **Q. HOW DO YOU KNOW THEIR TESTIMONY IS IN SUPPORT OF THE REVISED STIPULATION?**

17 A. Both testimonies refer to the closure of Killen and Stuart.

²⁰ <http://www.dplinc.com/news/details/dpl-reaches-agreement-with-various-intervenors-in-electric-security-plan-ca?phpMyAdmin=VDzL-FTt66ks4BwnaBr4J95u502>

²¹ <http://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=4096c32c-b7e7-4ee5-8e76-bd76bb5f90cd>

1 **Q. DO EITHER OF THE TESTIMONIES PROVIDE ANY EVALUATION OF THE NEWLY INCLUDED KILLEN**
2 **AND STUART PLANT CLOSURES?**

3 A. No. The entirety of Witness Schroder’s testimony regarding Killen and Stuart is as follows:

4 *DP&L has also committed to closing its other two coal-fired generation assets (1210 MW*
5 *total), assuming that the Stipulation is approved without material modification. No*
6 *riders or terms in the Stipulation will support generation service.*²²

7 Company Witness Malinak’s testimony focused on whether the Stipulation for ESP III is better
8 than an MRO, which is a requirement of the ESP process. Malinak says he understands as part
9 of the Stipulation “DP&L has agreed to close certain of these coal generation facilities by June,
10 2018”. For his analysis, however, this does not matter. According to Malinak:

11 *Under both the Stipulation and an MRO, bypassable rates beginning in 2017 will reflect*
12 *the Competitive Bidding Plan ("CBP") rate, which reflects the projected results of*
13 *competitive bidding for the opportunity to supply DP&L's retail customers. Consequently,*
14 *the bypassable portion of SSO rates will be the same under both the MRO and*
15 *Stipulation.*²³

16 Malinak also addressed the closure issue in two other ways. Malinak makes the point that
17 DP&L’s ownership of coal assets are a “credit negative” and once the coal plants have been
18 closed and the other assets sold, DP&L will realize a better credit rating and a lower cost of
19 capital. Malinak did not explain whether a sale of Killen and Stuart would have even greater
20 benefit vis-à-vis DP&L’s credit rating. He also did not address the obvious, which is if this were

²² Testimony of Sharon Shroder in Support of the Stipulation, Page 21 of 21

²³ Testimony of R. Jefferey Malinak, Page 10 of 69

1 true, why had DP&L sold its generation already given its previous agreement to do so by January
2 1, 2017.

3 Malinak addressed whether he “considered any non-quantifiable or quantifiable costs or
4 benefits from DP&L's agreement to close two of the coal generation facilities in which it owns an
5 interest, and to initiate a process to divest itself of its interest in the remaining coal plants?” His
6 brief answer is largely redacted presumably for reasons of confidentiality. It is unclear why any
7 costs related to closure are not disclosed.

8 In conclusion, Malinak did not address or consider the impact of the loss of 3,000 MW of low
9 cost power in the supply curve on the price of power for DP&L's customers or any other
10 implications of the plant closures. Given the February 2016 representations by DP&L that
11 retention of this power generation is critical and the failure to address this issue is suspect.

12 **Q. HOW DO YOU KNOW WHETHER THERE WERE OTHER CHANGES IN THE REVISED STIPULATION?**

13 A. I do not know. I attempted to compare Company Witness Schroder's testimony to the filed
14 Stipulation and I found some additional differences. For example, I noted in Witness Schroder's
15 testimony discussion of the Economic Development Rider (EDR) she does not mention the
16 benefits from the EDR are only available to signatories and non-opposing parties to the
17 Stipulation. As the filed Stipulation limits the EDR benefits to signatories and non-opposing
18 parties to the Stipulation, I do not know whether this was a change or an omission in Witness
19 Schroder's testimony. A revised stipulation and/or side agreements to a stipulation cannot be
20 evaluated without knowing their contents.

21 **Q. DO YOU KNOW WHAT THE DELAY IS IN FINALIZING THE REVISED STIPULATION OR SIDE**
22 **AGREEMENT?**

1 A. I can only speculate the delay is due to the complexity of an agreement which involves the
2 closure of almost 3000 MW of jointly-owned capacity.

3 **Q. WHY DO YOU BELIEVE THAT DP&L INCLUDED THE CLOSURE OF KILLEN AND STUART IN THE**
4 **REVISED STIPULATION OR A SIDE AGREEMENT GIVEN ITS FEBRUARY 2016 APPLICATION**
5 **WHICH SPEAKS TO THEIR IMPORTANCE?**

6 A. Given the information available, it appears committing to the closure of Killen and Stuart was
7 the price for garnering Sierra Club support and that DP&L believes it has a better chance of
8 obtaining approval for its ESP with Sierra Club support than without and that the ESP with the
9 closure of Killen and Stuart is a better outcome for DP&L than no ESP.

10 **Q. DO YOU KNOW WHETHER DP&L IS PROPOSING TO TRANSFER KILLEN AND STUART TO AES**
11 **OHIO GENERATION LLC OR ANOTHER UNREGULATED AFFILIATE UNTIL THE STATIONS ARE**
12 **CLOSED?**

13 A. No I do not. This is one of the many details that have not been disclosed.

14 **Q. DO YOU THINK WHETHER THE STATIONS ARE TRANSFERRED TO AES OHIO GENERATION LLC**
15 **OR ANOTHER UNREGULATED AFFILIATE IS RELEVANT?**

16 A. It may be very relevant in terms of how certain costs related to the station closures are handled.

17 **Q. DO YOU BELIEVE THE CLOSURE OF KILLEN AND STUART IS A BETTER OUTCOME FOR**
18 **CUSTOMERS OF DP&L?**

19 A. To start with, I believe DP&L has the burden of showing that closure of Killen and Stuart is a
20 better outcome for customers than a sale particularly given the February 2016 filing which

1 spoke to the importance of retaining the coal generation. As discussed above, DP&L has not
2 provided any such analysis to date. From my analysis, it is unlikely that the closure of Killen and
3 Stuart is a better outcome for the customers of DP&L.

4 **Q. PLEASE EXPLAIN WHY YOU DO NOT THINK CLOSURE OF KILLEN AND STUART IS IN**
5 **CUSTOMERS' INTEREST?**

6 A. There are two aspects of the closure economics that I question are in the best interest of DP&L
7 ratepayers. First, a sale of these assets should generate positive value to DP&L both through a
8 payment and a transfer of costs related to the ultimate closing of the plants thereby reducing
9 the revenue needed to support DPL's heavy debt load.²⁴ Second, while DP&L may own only
10 1100 MW of the two stations, including the ownership of other parties, the stations account for
11 almost 3000 MW of generation. Historically and prospectively, this capacity has at most times
12 been "in the money". If the capacity is retired, the supply curve contracts and power prices
13 would be higher.

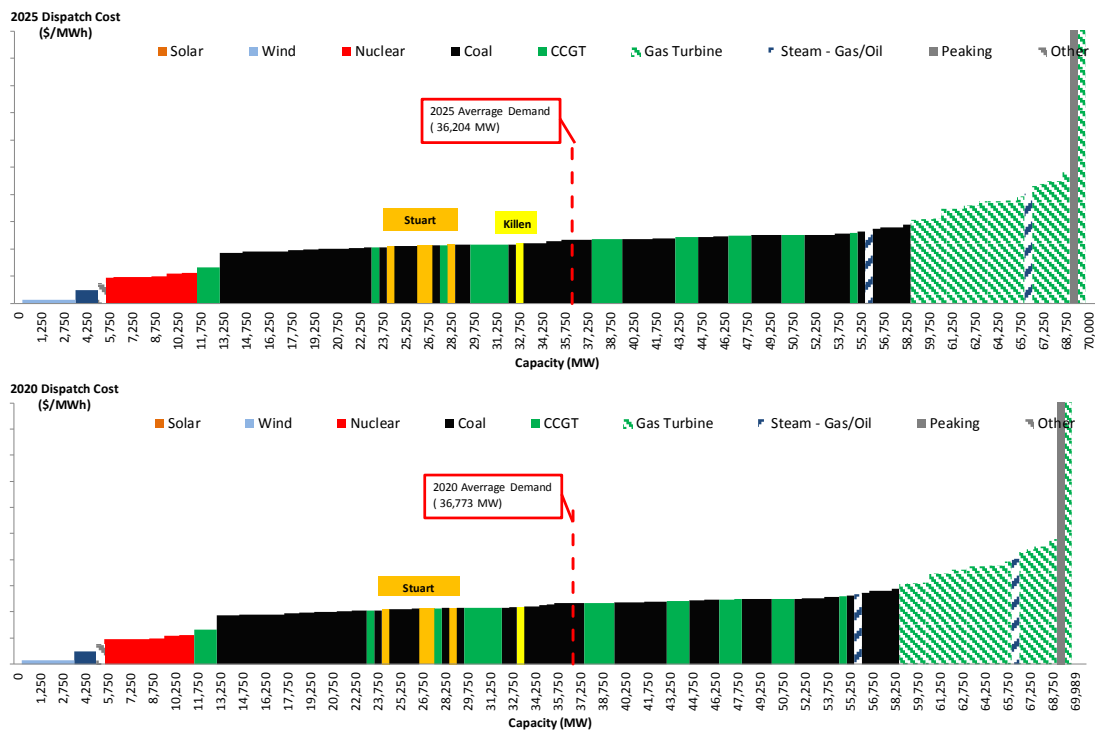
14 **Q. ON WHAT BASIS HAVE YOU CONCLUDED THAT IT IS NOT IN CUSTOMERS INTEREST TO CLOSE**
15 **KILLEN AND STUART?**

16 A. EVA develops market forecasts regularly for its multi-client services COALCAST and FUELCAST.
17 In addition, EVA prepares customized forecasts for clients incorporating their preferred
18 scenarios. In EVA's most recent multi-client forecast, the Stuart and Killen plants fall in lower
19 cost part of the supply curve in PJM. The PJM West "stack" for two years: 2020 and 2025 are
20 shown below. The stack provides lowest to highest cost generators based upon their dispatch

²⁴ The sale proceeds are unlikely to solve DPL's debt problems. It is important to remember that the cause of the debt was at least in part AES's over-payment for DPL. Asking DP&L to solve this problem is akin to asking a seller of a house to refund part of a purchase price if the value of the house declined.

1 cost in dollars per megawatt-hour (\$/MWh) with includes fuel and variable O&M. In both cases,
 2 Stuart and Killen are in the lower cost half of the supply curve in both 2020 and 2025. The
 3 curve, which was prepared before DP&L's January 30, 2017 announcement, includes all
 4 announced plant retirements as well as economic plant retirements. Stuart and Killen are
 5 included as their retirements had neither been announced nor evaluated to be economic.

6 **PJM WEST DISPATCH STACK IN 2020 AND 2025**



9 **Q. DOES THE EVA FORECAST ASSUME THE CLEAN POWER PLAN IS IMPLEMENTED?**

10 A. No. The Clean Power Plan was stayed by the U.S. Supreme Court in February 2016. A stay,
 11 which is a rare event, requires among other things a finding that the legal challenges are likely to
 12 prevail and absent a stay there would be irreparable harm. The election of Donald Trump
 13 increased the likelihood that the Clean Power Plan would not be implemented given the

1 campaign promises of Candidate Trump to reduce regulatory burden. The recent confirmation
2 of Scott Pruitt as EPA Administrator further strengthens this position as Pruitt had been as the
3 Attorney General of the state of Oklahoma a leading plaintiff in the challenges to the Clean
4 Power Plan.

5 **Q. IS EVA ALONE IN EXPECTING COAL UNITS TO HAVE A DISPATCH ADVANTAGE OVER GAS UNITS**
6 **IN THE FUTURE?**

7 A. No. In the recently-released 2017 Annual Energy Outlook, the Energy Information
8 Administration also forecasts a resurgence in coal generation during this period without the
9 Clean Power Plan.²⁵

10 **Q. IF LOW COST POWER PLANTS ARE RETIRED, WHAT HAPPENS TO POWER PRICES?**

11 A. Power prices increase as higher cost generation is needed to meet demand.

12 **Q. DO YOU THINK THERE ARE OTHER CONCERNS RELATED TO THE CLOSURE OF THE CLOSURE OF**
13 **KILLEN AND STUART THAT DP&L SHOULD CONSIDER?**

14 A. Absolutely, the economies of the communities in which these plants are located are heavily
15 dependent on these plants. DP&L's inclusion of nominal dollars to "help" these affected
16 communities does not come close to offsetting the economic devastation associated with the
17 closure of these plants.

18 **Q. WHAT HAS BEEN THE DELAY IN SELLING THESE PLANTS?**

²⁵ [http://www.eia.gov/outlooks/aeo/pdf/0383\(2017\).pdf](http://www.eia.gov/outlooks/aeo/pdf/0383(2017).pdf), page 69

1 A. It appears the delay was related to AES deciding it wanted to hold out for higher prices for the
2 generation. DP&L is believed to have periodically solicited bids for these assets from third
3 parties.²⁶ As noted above, in a supplemental filing on February 25, 2014 in Case No. 13-2420-EL-
4 UNC, DP&L indicated that AES had “recently begun to evaluate the transfer of the DP&L’s
5 generation assets to an unaffiliated third party through a potential sale.”²⁷ At that time, DP&L
6 said the “sale could occur as early as 2014”. Not long thereafter, on July 2014 AES issued a press
7 release saying it had decide to retain the generation because “of the potential recovery of
8 power prices, as well as PJM capacity prices.”²⁸ AES stated it believed “that this business has
9 additional value that can be captured by continuing to own and operate these generating
10 assets.” AES further said it would transfer the generation to an affiliate by January 1, 2017.

11 **Q. DID AES ASSUME ADDITIONAL RISK BY DELAYING THE SALE OF GENERATION ASSETS?**

12 A. In my opinion, while AES hoped the value of the plants would increase, it knew that there was
13 the potential for the value of the plants to decrease. By delaying what appeared to be a
14 potential sale, it was accepting the risk of a decline in value as the divestment was a known
15 regulatory obligation.

16 **Q. DO YOU THINK THERE WERE THERE OTHER REASONS FOR THE DELAY?**

17 A. Not unrelated, AES was concerned about the downgrades for DP&L and DPL that would likely
18 occur with the divestiture of generating assets. Moody’s Investor Service placed DP&L and DPL
19 long-term debt ratings under debt ratings under review for downgrade in September 2014.
20 Moody’s noted:

²⁶ <https://www.rtoinsider.com/aes-dpl-remorse-1403/>

²⁷ <http://dis.puc.state.oh.us/TiffToPdf/A1001001A14B25B63152E19165.pdf>

²⁸ <http://www.aes.com/investors/press-releases/press-release-details/2014/AES-Retains-DPL-Inc-Generation-Assets/default.aspx>

1 *The review for downgrade of DP&L's Baa1 senior secured debt rating is prompted by the*
2 *possibility that the Public Utility Commission of Ohio (PUCO) could authorize the*
3 *generation asset separation plan as requested by DP&L. This includes transferring the*
4 *generation assets not later than January 1, 2017 to an affiliate that would result in a*
5 *significant decrease in the amount of collateral that currently supports the utility's*
6 *outstanding secured debt. As a result, Moody's believes that if approved it would be*
7 *appropriate to reduce the notching difference between DP&L's secured and unsecured*
8 *ratings from our typical two to one alpha-numeric rating differential given the expected*
9 *lower amount of asset coverage.*²⁹

10 **Q. IS IT FAIR TO SAY THAT IN 2014 IT WAS KNOWN THAT THE ULTIMATE TRANSFER OR SALE OF**
11 **GENERATION WHETHER IT OCCURRED IN 2014 OR 2017 WOULD LIKELY RESULT IN DOWNGRADES?**

12 **A. Yes absent a dramatic change in the power markets.**³⁰

13 **Q. HOW DID THE OTHER OHIO REGULATED UTILITIES DEAL WITH THE DIVESTITURE OF**
14 **GENERATION?**

15 **A. While the approaches varied, the three other affected utilities had committed to divestment of**
16 **their generation by the end of 2014.**

17 **Q. WHEN DID FIRSTENERGY TRANSFER ITS GENERATING ASSETS?**

18 **A. FirstEnergy on behalf of its Ohio operating companies (i.e., Ohio Edison, Cleveland Electric**
19 **Illuminating and Toledo Edison) filed a transition plan in late 1999. The transition plan included**

²⁹ https://www.moody's.com/research/Moodys-places-DPL-and-DPL-long-term-debt-ratings-under--PR_308493

³⁰ According to Malinak, DP&L will not be downgraded as a result of the sale in 2017. It is not clear what he is assuming regarding the DPL's debt and all of the financial implications related to the closure of Killen and Stuart and the sale/transfer of the remaining generation.

1 proposals on corporate separation of its regulated and unregulated operations and proposed
2 recovery of generation costs over a market development period. On July 19, 2000, the PUCO
3 approved with some modification the transition plan. On May 18, 2005, the Ohio operating
4 companies entered into certain agreements implementing a series of intra-system generation
5 asset transfers. The asset transfers, which were completed in the fourth quarter of 2005,
6 resulted in the respective undivided ownership interests of the Ohio companies being
7 transferred to FirstEnergy Generation Corporation (FGCO) which is now part of FirstEnergy
8 Solutions.

9 **Q. WHEN DID OHIO POWER (AEP) TRANSFER ITS GENERATING ASSETS TO AEP GENERATION**
10 **RESOURCES?**

11 A. AEP formed AEP Generation Resources (AEPGR) in 2013 to take ownership and operate
12 generation resources previously owned by Ohio Power. The generating assets were transferred
13 AEPGR on or about December 31st, 2013 as required by Ohio Power's state-mandated corporate
14 reorganization. This reorganization was approved by FERC on April 29, 2013. The transfers
15 were made at net book value. The AEP situation was somewhat more complicated as coincident
16 with the transfer AEP was also realigning its generation with the load of its various operating
17 companies and seeking to terminate the Interconnection Agreement among its operating
18 companies which had provided for payments between the operating companies. Ohio Power's
19 ownership share in the Amos station was transferred to Appalachian Power and the entire
20 Mitchell plant was transferred to Kentucky Power and Wheeling Power. The net result was that
21 Cardinal #1, Gavin, and Ohio Power's interest in Beckjord, Conesville #4, Killen, Stuart and
22 Zimmer were transferred to AEPGR. Beckjord was retired in 2014.

1 In January 2017, AEP completed the sale of Gavin along with three gas plants to Lightstone
2 Generation LLC, a joint venture of Blackstone Group LP and an ArcLight Capital Partners affiliate.
3 AEP indicated it was using the proceeds from the sale to reinvest in its regulated businesses.

4 **Q. WHEN DID DUKE ENERGY OHIO TRANSFER ITS GENERATING ASSETS?**

5 A. The Duke Energy Ohio plants had operated as merchant plants for a number of years within
6 Duke's Commercial Power division but with revenue support through various mechanisms
7 authorized by the PUCO. The 2011 ESP required that the generation assets be transferred to a
8 nonregulated affiliate on or before December 31, 2014. During the second quarter of 2014, the
9 nonregulated generation was transferred into Duke Energy Commercial Asset Management
10 (DECAM). Beckjord was retired in 2014.

11
12 In early 2014, the PUCO turned down Duke's request for continued revenue support and Duke
13 decided it wanted to sell the unregulated assets. Duke noted in its 2014 10-K that it wanted to
14 pursue a sale "(a)lthough the undiscounted cash flows recover the carrying value of the Midwest
15 Generation assets..."³¹ Duke felt "the recovery period is over a long period of time, with risks
16 inherent in operating these assets in competitive energy markets and in an everchanging
17 landscape of environmental regulations related to fossil fuel based generation sources."
18 Management concluded in early 2014 that the projected risk and earnings profile of these assets
19 was no longer consistent with Duke Energy's strategy and initiated a plan to sell these assets
20 and realize the fair value over a shorter period while reducing the risk and volatility associated
21 with these assets.

22

³¹ <https://www.sec.gov/Archives/edgar/data/17797/000132616015000008/duk-20141231x10k.htm>

1 On August 21, 2014, Duke Energy entered into an agreement to sell its nonregulated Midwest
2 generation business to Dynegy Inc. (Dynegy) for approximately \$2.8 billion in cash subject to
3 adjustments at closing for changes in working capital and capital expenditures. The assets sold
4 included DECAM's coal-fired and gas-fired generation assets and a retail sales subsidiary of Duke
5 Energy, Duke Energy Retail Sales, LLC (Duke Energy Retail), which was certified as a CRES
6 provider in Ohio. The sale closed in 2015.

7 **Q. DO YOU BELIEVE THERE ARE BUYERS FOR KILLEN AND STUART?**

8 A. Yes. There has been considerable market interest in existing coal-fired plants for several
9 reasons including those listed below:

- 10 a. A third party may have a different market view regarding coal gas price differentials which
11 would result in higher generation assumptions for the coal units and hence higher value.
- 12 b. A third party may believe the regulatory environment for coal-fired power plants will be
13 different due to of the change in administration and the likely demise of the Clean Power
14 Plan.
- 15 c. Coal producers and transporters are increasingly flexible with respect to their pricing
16 structure to improve the dispatch of coal plants. In some markets, coal producers have
17 been known to provide discounts and premiums to the coal price based upon real-time
18 power pricing. Depending upon the discounts, this could reduce the fuel cost to very low
19 levels during off-peak periods allowing plants to dispatch ahead of gas.
- 20 d. Coal producers are concerned about maintaining market. With increased numbers of plant
21 retirements, they are looking to maintain the demand for their coal through plant
22 acquisitions.

1 **Q WHO ARE THE POTENTIAL BUYERES?**

2 A. The potential buyers include private equity (as was seen in the sale of the Gavin power plant),
3 merchant generators (as was seen in the sale of the Duke Energy Ohio plants), and strategic
4 players such as coal producers who are increasingly interested in vertical integration within their
5 markets.

6 **Q. PLEASE REVIEW THE ADVANTAGES TO RATEPAYERS OF A SALE RATHER THAN RETIREMENT?**

7 A. The advantages include:

- 8 a. Possible positive value which would reduce DP&L's request for ESP riders
- 9 b. Transfer of plant closing costs
- 10 c. Reduced power costs to ratepayers
- 11 d. No economic destruction in the counties in which the power plants reside
- 12 e. Transfer of risk related to plant performance from DP&L or AES Ohio Generation LLC to
13 a third party

14 **Q. DO YOU KNOW THE REASONS FOR THE MID 2018 RETIREMENT DATES?**

15 A. As mentioned, DP&L has provided little information about the retirements other than they were
16 needed to obtain Sierra Club support. It is possible that the mid-2018 date is dictated by PJM.
17 PJM is the regional transmission organization to which DP&L belongs. PJM dispatches electric
18 generating plants on a lowest cost basis based upon the prices each generator bids. PJM
19 provides capacity support for generators based upon prices bid three years in advance. The
20 winners of each auction are not identified by PJM so it is unknown whether DP&L's capacity bids

1 for 2018/2019 were successful. It is possible they were not, hence the mid-2018 closure date. It
2 is interesting, however, that AEP announced its bid for Stuart cleared the auction for 2018/2019.

3 **Q. WHEN IS THE NEXT PJM CAPACITY AUCTION?**

4 A. The next capacity auction is in May 2017. If DP&L fails to offer its Stuart and Killen capacity in
5 this auction, it could materially reduce the value of these stations.

6 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

7 A. Yes. If additional information becomes available, I reserve the right to supplement my
8 testimony.

9

10

11 **APPENDIX A**

12 **RESUME OF**
13 **EMILY S. MEDINE**
14

15 **EDUCATIONAL BACKGROUND**

16 M.P.A. Woodrow Wilson School of Public and International Affairs, Princeton
17 University, 1978
18 B.A. Geography, Clark University, 1976 (magna cum laude, Phi Beta Kappa)
19

20 **PROFESSIONAL EXPERIENCE**

21 **Current Position**

22 Emily Medine, a Principal, has been with Energy Ventures Analysis since 1987. Her experience includes
23 forecasting, bankruptcy support, market strategy development, fuel procurement audits, fuel
24 procurement, acquisition and investment analyses, and strategic studies. She has also provided expert
25 testimony on utility fuel procurement practices and coal contract disputes. The types of projects in
26 which she is involved are described below:
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Fuel Procurement

Ms. Medine develops and implements fuel procurement strategies for U.S. and foreign coal consumers. Fuel procurement assistance has ranged from determining an appropriate strategy to soliciting bids and negotiating purchase agreements. In the last five years, Ms. Medine has advised several international coal consumers of their fuel procurement activities. Ms. Medine continues to advise numerous U.S. and international coal consumers on their coal and petroleum coke procurements.

Forecasting

Ms. Medine develops forecasts of U.S. and global solid fuel demand and prices for alternative coal types, coke and market segments. These forecasts are provided to individual clients and are documented in various FUELCAST/COALCAST reports.

Bankruptcy Support

Ms. Medine was an advisor to the Horizon Natural Resource companies which operated as a debtor-in-possession in the development of a plan to accomplish reclamation on all permits not sold and transferred as part of the plan of reorganization. For a period of 15 months, Ms. Medine served as Executive Vice President of Centennial Resources, Inc., a debtor-in-possession, as part of EVA’s contract to manage this company post-petition. In this capacity, she managed the day-to-day operations of the company as well as serving as the liaison between the company, state and county regulatory agencies, the bankruptcy court, and the lenders. This assignment ended upon the filing of Centennial’s plan of reorganization. Ms. Medine has also served as the advisor to secured lenders in another coal industry bankruptcy. In this capacity, she reviewed and developed independent financial forecasts and operating plans of the debtor-in-possession. Most recently, Ms. Medine supported the Department of Justice in a major U.S. coal bankruptcy.

Acquisition and Investment

Ms. Medine was the agent for Lexington Coal Company in the sale of its assets in Indiana and Illinois. As part of this engagement, Ms. Medine was responsible for the sale of three mines to Peabody Energy. Ms. Medine also routinely evaluates the economics of potential projects or acquisitions for producers, developers, and industrials. For coal projects, this includes market and financial forecasts. In addition to the above, Ms. Medine has completed the sale of multiple mine assets. Ms. Medine was an advisor to and on the board of The Elk Horn Coal Company until its sale to Rhino Energy in June 2011. Ms. Medine managed the sale of a small Central Appalachian producer in 2015.

Forecasting

Ms. Medine develops forecasts of U.S. and global solid fuel demand and prices for alternative coal types, coke and market segments. These forecasts are provided to individual clients and are documented in various FUELCAST/COALCAST reports.

Fuel Procurement Audits

Ms. Medine manages and performs fuel procurement audits on behalf of regulatory commissions, utility management, and third-party interveners. She has performed over 25 audits of utilities regulated by the Public Utilities Commission of Ohio and testified in a number of proceedings. She also managed two major audits of the fuel procurement practices of

1 PacifiCorp. Recent audits include Appalachian Power (2006, 2007, and 2014) and Monongahela
2 Power (2007 and 2015) on behalf of the Consumer Advocate of the State of West Virginia,
3 Tucson Electric Power on behalf of the Arizona Corporation Commission in 2007/2008 and 2012,
4 AEP Ohio on behalf of the Ohio’s Consumer Counsel, and AEP Ohio (2009, 2010, 2011, 2012,
5 2013 and 2014) and Dayton Power & Light (2010, 2011, 2012, 2013, 2014, and 2015) on behalf
6 of the staff of the Public Utilities Commission of Ohio.
7

8 ***Market Strategy Development***

9 Ms. Medine assists clients in the development of marketing strategies on behalf of coal
10 suppliers and transporters. She has helped to identify the high value markets and strategies for
11 obtaining these accounts.
12

13 ***Expert Testimony and Presentations***

14 Ms. Medine prepares analyses and testimony in support of clients involved in regulatory and
15 legal proceedings. She provides testimony in commission hearings on fuel procurement issues
16 and arbitration proceedings on contract disputes and damages. Ms. Medine regularly speaks at
17 industry meetings.
18

19 **Prior Experience**

20 Prior to joining EVA, Ms. Medine held various positions at CONSOL including Assistant District Sales
21 Manager – Chicago Sales Office and Strategic Studies Coordinator. Prior to CONSOL, Ms. Medine was a
22 Project Manager at Energy and Environmental Analysis, Inc. where she directed two large government
23 studies. For the Environmental Protection Agency, Ms. Medine directed an evaluation of the energy,
24 environmental and economic impacts of New Source Performance Standards on Industrial Boilers. For
25 the Department of Energy, Ms. Medine directed an evaluation of the financial impacts of requiring
26 utilities with coal capable boilers to reconvert to coal. Ms. Medine worked as a Research Assistant at
27 Brookhaven National Laboratory while she attended graduate school.

28

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Summary: Testimony Direct Testimony of Emily S. Medine, Principal, Energy Ventures Analysis, Inc. on Behalf of Murray Energy Corporation electronically filed by John F Stock on behalf of Murray Energy Corporation