

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:)
)
AMENDMENTS TO) R2018–20
) (Rulemaking – Air)
35 ILL. ADM. CODE 225.233,)
MULTI-POLLUTANT STANDARDS (MPS))

NOTICE OF FILING

PLEASE TAKE NOTICE that I have filed today with the Illinois Pollution Control Board the attached **PREFILED TESTIMONY OF TAMARA DZUBAY** on behalf of **ENVIRONMENTAL LAW & POLICY CENTER AND SIERRA CLUB**, copies of which are served on you along with this notice.

Respectfully Submitted,

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Dated: April 3, 2018

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CERTIFICATE OF SERVICE

I, JUSTIN VICKERS, an attorney, do certify that on April 3, 2018, I caused the Pre-Filed Testimony of Tamara Dzubay on behalf of Clean Energy Groups and the Notice of Filing to be served upon the persons listed in the attached Service List by email for those who have consented to email service and by U.S. Mail for all others.

/s/Justin Vickers
JUSTIN VICKERS

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**PRE-FILED TESTIMONY OF TAMARA DZUBAY
ON BEHALF OF ENVIRONMENTAL LAW & POLICY CENTER AND SIERRA CLUB**

Environmental Law and Policy Center and Sierra Club hereby file the testimony of Tamara Dzubay directed to the Illinois Pollution Control Board in this matter, as provided by the Hearing Officer Order issued on March 14, 2018.

I. INTRODUCTION

My name is Tamara Dzubay and I am presenting testimony on behalf of the Environmental Law and Policy Center and the Sierra Club. I am a Clean Energy Finance Specialist at the Environmental Law & Policy Center in Chicago. I hold a Bachelor of Business Administration degree from the University of Michigan’s Ross School of Business with a concentration in finance. I also hold a Master of Business Administration degree from Northwestern University’s Kellogg School of Management where I majored in finance. I’ve worked in financial roles for seven years, three of those years in the energy industry. I have experience creating detailed cash flow financial models as well as energy pricing and operational models. I’ve guest lectured on *Topics in Energy & Sustainability*¹ at the University of Illinois at Chicago, presented on energy issues at state conferences and submitted comments on behalf of the Environmental Law & Policy Center to numerous state agencies and regulatory authorities in the Midwest region.

¹Univ. of Ill. at Chi., *LAS 493: Topics in Energy & Sustainability* (Spring 2018), <https://uicsustainablemobility.wordpress.com/spring-2018-guest-lectures/> (last visited Apr. 3,2018).

II. QUESTIONS AND ANSWERS

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to show that as of year-end 2017, Dynegy's MISO segment is cash flow positive, not negative as has been suggested numerous times in this rulemaking. In doing so, I explain some of the financial terminology that has been used in this rulemaking. Explaining this terminology helps demonstrate why Dynegy has painted a misleading picture of the financial situation of the plants at issue.

Q. Do you have any overarching concerns with how Dynegy has presented its financial situation in this rulemaking?

A. Yes. Throughout this rulemaking, Dynegy has repeatedly and misleadingly conflated a number of financial metrics in a way that overstates their financial problems. Dynegy has presented the MISO segment as being cash flow negative by pointing to metrics that do not equate to cash flow when in fact the metric that best represents the cash flow position of the segment is positive. As of year-end 2017, the only financial metric that is presented in Dynegy's SEC filings as being negative for the MISO segment is the operating loss, which is driven by a non-cash impairment expense from the second quarter. Dynegy has written down the value of some of its plants through impairment charges, which leads to a lower cost basis and thus lower future depreciation expenses. These lower depreciation expenses are one of the reasons that the MISO segment had an operating income of \$6 million in the fourth quarter of 2017 compared to an operating loss of \$42 million in the fourth quarter of 2016. My testimony will further explain these issues.

Q. What is Dynegy's MISO segment?

A. As Dynegy confirmed in response to the Environmental Group's pre-filed questions from the last hearing, the MISO segment represents what was formerly both the MISO and IPH segments.

1. Turn to Attachment A below, which is Dynegy's 10-K SEC filing for 2017 ("2017 10-K"). On pages 2-3 of the 2017 10-K, can you confirm that Dynegy combined the MISO segment and IPH segment into a single MISO segment?²

A. So in answer to question number one, yes.³

The combined MISO segment includes the Baldwin, Havana, and Hennepin plants (the Dynegy MPS group excluding the Vermilion and Wood River plants which are no longer operating) and the Coffeen, Duck Creek, E.D. Edwards, Joppa, and Newton plants (the Ameren MPS group excluding the Hutsonville and Meredosia plants which are no longer operating).⁴

Q. In his pre-filed testimony, Dynegy's Dean Ellis made the following statement:

In other words, in order for Dynegy to operate it must bid into MISO higher-cost, lower emitting units along with the lower-cost, higher emitting units. *This situation results in Dynegy's fleet operating on a negative cash flow basis, that is, revenues received are less than the fuel and other operating costs incurred to operate the unit.*⁵

In your experience, is this a typical definition of "negative cash flow?"

² R18-20, Environmental Groups' Prefiled Questions for Dynegy's Witnesses (Mar. 2, 2018) at 1.

³ Mar. 6, 2018 Tr. 74:1-18.

⁴ See R18-20, IEPA Statement of Reasons (Oct. 2, 2017) at 2.

⁵ R18-20, Dynegy Testimony of Dean Ellis (Dec. 11, 2017) at 11.

A. No. Mr. Ellis's definition is more in line with Dynegy's definition of gross margin (also commonly referred to as gross profit). For example, Dynegy's SEC filings define gross margin as operating revenues minus operating costs.⁶

Q. Is negative cash flow the same as negative gross margin?

A. No, it is not. A negative cash flow would mean that cash flowing out of the business unit exceeds cash coming into the business unit. A negative gross margin would indicate that the costs of goods/services sold exceed sales revenues, or in the case of Dynegy, that operating costs exceed operating revenues.

Gross margin does not equate to the cash position of a firm. For example, revenues are booked when a sales transaction takes place and don't necessarily represent cash on hand. This is the case when you purchase something with a credit card, and you are not immediately exchanging cash. The sale is booked as revenue on the merchant's income statement, but cash has not actually been exchanged so under the asset section of the merchant's balance sheet, accounts receivable would increase. Another example is that certain uses of cash, such as the purchase of equipment or expenditures on inventory purchased but not yet sold (such as a power plant's stockpile of coal⁷) are not reflected as cost of goods/services sold (or in the case of Dynegy, operating costs) on the income statement. They are reflected as property, plant and equipment and inventory on the balance sheet.

⁶ See Exhibit A — Dynegy's Discussion of Segment Adjusted EBITDA — Year Ended December 31, 2017 Compared to Year Ended December 31, 2016 for the MISO segment.

⁷ See U.S. Energy Info. Admin., *Days of burn by non-lignite coal rank, January 2009—January 2018* (Mar. 23, 2018), https://www.eia.gov/electricity/monthly/update/fossil_fuel_stocks.php#tabs_stocks2-1.

Q. Was the MISO segment's gross margin for the last reporting period negative?

A. No, the MISO segment's gross margin for the last reporting period was positive. Specifically, for the last reporting period (calendar year 2017) the MISO segment had a gross margin of \$429 million.⁸

Q. How would you determine whether the MISO segment is operating on a negative cash flow basis?

A. I would determine this by calculating the MISO segment's free cash flow.

Q. What is free cash flow?

A. Free cash flow is a financial metric that determines the amount of cash that is available after accounting for necessary expenses needed to run and grow a business.⁹

Q. Why is free cash flow important?

A. Free cash flow is important because for a company to remain functional, it must have sufficient cash to meet short-term obligations needed to continue operating the business. Short-term obligations are often referred to as working capital requirements. Additionally, for a company to grow, it must invest in capital expenditures. Free cash flow takes into account the expenses that are necessary to meet short-term obligations as well as the expenses that are necessary to invest in capital expenditures.

Q. How is free cash flow calculated?

⁸ See Exhibit A—Dynergy's Discussion of Segment Adjusted EBITDA — Year Ended December 31, 2017 Compared to Year Ended December 31, 2016 for the MISO segment.

⁹ See JONATHAN BERK & PETER DEMARZO, CORPORATE FINANCE 241-254 (Donna Battista et al. eds., 3d ed. 2014).

A. Free cash flow is typically calculated as net operating profit after tax plus non-cash expenses minus capital expenditures minus change in net working capital.¹⁰

Q. What is net working capital?

A. It represents the capital that is needed or available to run the business over the short-term.¹¹

The text book *Corporate Finance* provides a succinct explanation:

Firms may need to maintain inventories of raw materials and finished product to accommodate production uncertainties and demand fluctuations. Also, customers may not pay for the goods they purchase immediately. While sales are immediately counted as part of earnings, the firm does not receive any cash until the customers actually pay. In the interim, the firm includes the amount that customers owe in its receivables. Thus, the firm's receivables measure the total credit that the firm has extended to its customers. In the same way, payables measure the credit the firm has received from its suppliers...Any increases in net working capital represent an investment that reduces the cash that is available to the firm and so reduces free cash flow.¹²

Q. Based on this formula and using the best available public information from Dynegy's SEC filings, would you conclude that the MISO segment's free cash flow for the last reporting period was negative?

¹⁰ See *id.* at 243, 248.

¹¹ See *id.* at 242, 1057.

¹² *Id.* at 242.

A. No. I would conclude that the MISO segment's free cash flow for the last reporting period was positive. Specifically, the MISO segment had a free cash flow of **\$116.9 million** for the last reporting period. I have included this calculation in *Exhibit B - Textbook Calculation of MISO Segment's Free Cash Flow*.¹³

Q. Mr. Ellis testified at the March 6 hearing regarding how to calculate free cash flow:

A. With regard to any information that documents the negative cash flow for the MISO segment, one could refer to a combination of the operating income and the [capital expenditures] to determine the cash flow position of the segment.

Q. So typically, do you include non-cash expenditures when calculating cash flow?

A. We would typically take out non-cash items.¹⁴

If you use these inputs to calculate free cash flow for the MISO segment, what is the result?

A. This would result in a free cash flow figure of **\$117 million** for the MISO segment for the last reporting period.¹⁵

Q. Is there any other indication of how Dynegy calculates free cash flow in its SEC filings?

A. Yes, in the Dynegy/Vistra merger filing, Dynegy Management prepared financial forecasts of the company's gross margin, adjusted earnings before interest, taxes, depreciation, and amortization (EBITDA) and free cash flow through 2021.¹⁶ While these projections are for the company as a whole, they show that the free cash flow for the MISO segment can be calculated as adjusted EBITDA minus capital expenditures. Using this calculation, the MISO segment's

¹³ See Exhibit B—Textbook Calculation of MISO Segment's Free Cash Flow.

¹⁴ Mar. 6, 2018 Tr. 77:20-78:23.

¹⁵ See Exhibit C—Dean Ellis' Calculation of Free Cash Flow.

¹⁶ See Exhibit D—Dynegy Management Projections.

free cash flow for the last reporting period (calendar year 2017) is **\$123 million**.¹⁷ The result is \$6 million higher than the calculation derived from Mr. Ellis's calculation because it includes certain one-time charges and other items that are documented in *Exhibit F – Difference in Dynegy's Calculations*.¹⁸

Q. Why do you think Dynegy Management focuses on Gross Margin, Adjusted EBITDA and Free Cash Flow in its financial projections?

A. I assume the company finds these metrics to be important determinants of financial health. Gross margin indicates whether revenues exceed costs of services.¹⁹ Adjusted EBITDA is meant to reflect operating performance.²⁰ As I mentioned previously, free cash flow determines the amount of cash that is available after accounting for necessary expenses needed to run and grow a business. According to Dynegy's SEC filings, for the last reporting period, the MISO segment had a gross margin of \$429 million, an adjusted EBITDA of \$152 million and free cash flow of \$123 million.²¹

Q. In Dynegy's Responses to Questions for Dynegy's Witnesses, Dynegy states that the Illinois fleet is cash flow negative and backs this statement up by pointing to the operating loss for the MPS fleet:

As a whole, the Illinois fleet is cashflow negative. Specifically, for the nine months ending September 30, 2017, the "MISO" segment reported an

¹⁷ See Exhibit E— Free Cash Flow Calculation for the MISO Segment Based on Formula Presented in Dynegy Management Projections.

¹⁸ See Exhibit F— Difference in Dynegy's Calculations.

¹⁹ See Exhibit D— Dynegy Management Projections.

²⁰ See Dynegy Inc., Annual Report (Form 10-K) 45 (Feb. 22, 2018).

²¹ See Exhibit A— Dynegy's Discussion of Segment Adjusted EBITDA — Year Ended December 31, 2017 Compared to Year Ended December 31, 2016 for the MISO segment; Exhibit D— Dynegy Management Projections; Exhibit E— Free Cash Flow Calculation for the MISO Segment Based on Formula Presented in Dynegy Management Projections.

operating loss of \$90 million and the “IPH” segment reported an operating income of \$40 million, for a total net operating loss of \$50 million for the MPS fleet.²²

Does the operating loss indicate that the Illinois fleet is cashflow negative?

A. No, it does not. Dynegy’s operating loss does not equate to the Illinois fleet being cash flow negative.

Q. Can you please explain the differences?

A. To do this, it is necessary to explain the difference between earnings and cash flow. Operating income or loss is a measure of a firm’s earnings. Cash flow, on the other hand, is the net amount of cash moving into and out of a business and indicative of liquidity. The text book *Corporate Finance* provides a succinct explanation of the difference:

Earnings are an accounting measure of the firm’s performance. They do not represent real profits: The firm cannot use its earnings to buy goods, pay employees, or fund new investments. To do those things, a firm needs cash. Thus, to evaluate a capital budgeting decision, we must determine its consequences for the firm’s available cash.

There are important differences between earnings and cash flow. Earnings include non-cash charges, but do not include the cost of capital investment. To determine free cash flow from incremental earnings, we must adjust for these differences.²³

Q. Do you agree that the MISO segment is cash flow negative?

A. No. As I mentioned previously, I would calculate the MISO segment’s free cash flow by using the best available public information from Dynegy’s SEC filings, which I have done in *Exhibit B - Textbook Calculation of MISO Segment’s Free Cash Flow*.²⁴ The calculation results in \$116.9 million in free cash flow for the MISO segment. Therefore, I would not agree that the

²² R18-20, Dynegy’s Responses to Questions (Feb. 16, 2018) at 3.

²³ BERK, *supra* note 9, at 241.

²⁴ See Exhibit B—Textbook Calculation of MISO Segment’s Free Cash Flow.

MISO segment is cash flow negative. While the cash flow position of the segment is an important financial indicator, the MISO segment is not cash flow negative.

Q. Based on your testimony, it appears that in this rulemaking Mr. Ellis has conflated both gross margin with negative cash flow and operating loss with negative cash flow, is this correct?

A. Yes, and it is incorrect to conflate these metrics. The MISO segment's gross margin does not equate to cash flow and neither does the MISO segment's operating income/loss.

Q. How would you describe the last reporting period according to these metrics?

A. The MISO segment was cash flow positive but incurred an operating loss.

Q. What were the drivers of the MISO segment's operating loss.

A. Non-cash expenses were the drivers. Specifically, the non-cash expenses of depreciation and impairments drove the MISO segment's operating loss.

Q. What is a non-cash depreciation expense?

A. Fixed assets, such as the MISO segment plants, incur a non-cash depreciation expense for accounting purposes according to a depreciation schedule that is dependent on the asset's useful life. This expense is meant to reflect the wear and tear on an asset over a given period and appears on the income statement to write down the value of the asset on the balance sheet.

Q. What is a non-cash impairment expense?

A. Long-lived assets, such as Dynegy's plants, are listed on the balance sheet at their book value.

When an asset is purchased, the book value is the acquisition cost less its accumulated depreciation expense.²⁵ When an asset is built, the book value is typically calculated through a net present value calculation of discounting future cash flows at a risk-adjusted rate of return.

When circumstances indicate that the book value of an asset on the balance sheet is less than its fair market value and that the loss is unrecoverable, a company can book an impairment charge on the income statement to write down the value of the asset on the balance sheet. Dynegy's explanation of impairments is attached in *Exhibit G – Impairment of Long-Lived Assets*.²⁶

Q. How does an impairment expense relate to an asset's current market value?

A. An impairment expense is meant to reduce the value of an asset to reflect its current market value.

Q. Are there any other circumstances when assets are adjusted to their current market value?

A. Yes, in mergers and acquisitions the acquiring company typically values the acquiree's assets at their fair market value.

Q. In the Vistra/Dynegy merger, is Vistra (the acquiring company) valuing Dynegy's assets at their fair market value?

A. Yes. Below is an excerpt from the Vistra/Dynegy merger filing that can be found under the heading Anticipated Accounting Treatment.

²⁵ See *id.* at 1048.

²⁶ See Exhibit G— Impairment of Long-Lived Assets.

Dynegy's assets acquired, liabilities assumed and non-controlling interests will be measured at their respective fair values as of the closing date of the Merger.²⁷

In other words, after the merger all of Dynegy's plants are going to be marked at their current value, not just the plants that incurred impairment expenses.

Q. Would this have any effect on the future profitability of these plants?

A. Yes. In US accounting practices, the Accounting Standards Codification is the current single source of United States Generally Accepted Accounting Principles (GAAP). As explained in the Accounting Standards Codification:

**Property, Plant, and Equipment — Overall
Subsequent Measurement**

360-10-35-20- If an impairment loss is recognized, the adjusted carrying amount of a long-lived asset shall be its new cost basis. For a depreciable long-lived asset, the new cost basis shall be depreciated over the remaining useful life of that asset.

Once an impairment loss is allocated to the carrying values of the long-lived asset held and used, the reduced carrying amount represents the new cost basis of the long-lived asset. As a result, entities are prohibited from reversing the impairment loss should facts and circumstances change. In addition, future depreciation or amortization would be based on the asset's new cost basis.²⁸

Ernst & Young's report on *Impairment or disposal of long-lived assets* notes the consequence of Accounting Standards Codification **360-10-35-20** below.

An interesting consequence of the [Financial Accounting Standards Board's] approach is that if fair value is determined by discounting future cash flows at a risk-adjusted rate of return, the written-down assets likely will be very profitable in the future if the entity

²⁷ Dynegy Inc., Proxy Statement (Schedule 14A) 135 (Jan. 25, 2018).

²⁸ Ernst & Young, *Financial reporting developments: A comprehensive guide – Impairment or disposal of long-lived assets* 42 (2017),

[http://www.ey.com/publication/vwluassetsdld/financialreportingdevelopments_bb1887_impairment_15december2017-v2/\\$file/financialreportingdevelopments_bb1887_impairment_15december2017-v2.pdf?OpenElement](http://www.ey.com/publication/vwluassetsdld/financialreportingdevelopments_bb1887_impairment_15december2017-v2/$file/financialreportingdevelopments_bb1887_impairment_15december2017-v2.pdf?OpenElement).

Ernst & Young is one of the "Big Four" reputable accounting firms that together handle the vast majority of audits for public and private companies.

achieves the cash flows used in the model. The new cost basis will result in significantly lower depreciation charges while the assets will generate cash flows providing a risk-adjusted rate of return.²⁹

Q. Did Dynegy determine fair value by discounting future cash flows at a risk-adjusted rate of return when calculating impairment charges for the MISO plants, as is suggested in the italicized section below from Ernst & Young's report:

[I]f fair value is determined by discounting future cash flows at a risk-adjusted rate of return, the written-down assets likely will be very profitable in the future if the entity achieves the cash flows used in the model.³⁰

A. Yes. The 2017 impairment charges of \$10 million to write down the value of the Hennepin plant and \$89 million to write down the value of the Havana plant were measured using a discounted cash flow (DCF) model.³¹ A discounted cash flow model discounts expected future cash flows at a risk-adjusted rate of return. The table also shows that in 2016 Dynegy booked a \$645 million impairment charge to write down the value of Baldwin.

Q. Below is testimony by Mr. Ellis from the most recent hearing in this rulemaking:

Q Does Dynegy still plan to mothball Baldwin Unit Number 1 this year?

A [By Dean Ellis} At this point, Dynegy has no plans to mothball that unit this year.

Q Did they previously have plans to do mothball Baldwin Number 1 in '18?

A It was under consideration, but at this point, we haven't given it any additional consideration.

Q And I guess my follow-up question would be, what changed to change this Dynegy strategy regarding Baldwin 1?

A We were able to defer some capital expenditures and operational expenditures which helped the near term financial operational outlook of the unit.³²

²⁹ *Id.*

³⁰ *Id.*

³¹ See Exhibit H— Dynegy's Impairment Table.

³² Mar. 12, 2018 Tr. 59:7-22.

What does that testimony tell you?

A. Mr. Ellis stated that Baldwin is no longer slated for mothball.

Q. Do you believe this consequence of written down assets being very profitable in the future could be related to Baldwin no longer being slated for mothball?

A. Yes. It is possible that the impairment charge at Baldwin led to significantly lower depreciation expenses at the unit which makes the plant more profitable. This could be why it is no longer slated for mothball.

Q. Why do you think the Duck Creek and Coffeen plants that have been presented as needing operational flexibility due to poor financial performance are not listed on Dynegy's table as being "impaired"?

A. It could be because Dynegy acquired these plants in 2013 along with the other plants that formerly comprised the IPH segment at no stock or cash consideration. In order to determine the purchase price for the purposes of valuing the assets on the balance sheet, Dynegy estimated the fair value of the plants using a discounted cash flow model. The MISO capacity auction price at that time was low so if Dynegy used the current market conditions to predict future cash flows, it is likely that the cash flows have been achievable which is why Duck Creek and Coffeen aren't listed as impaired.³³

Q. If the cash flows for Duck Creek and Coffeen were achieved, does that indicate the plants are performing at least as well as Dynegy expected them to?

³³ See Note 3—*Merger and Acquisitions*, SEC.GOV, <https://www.sec.gov/Archives/edgar/data/1379895/000137989514000004/R11.htm> (last visited Apr. 3, 2018).

A. Yes, that would be the indication.

Q. Did Vistra determine fair value by discounting future cash flows at a risk-adjusted rate of return when measuring the value of Dynegy's assets in the merger?

A. Yes. As Dynegy and Vistra explained in their merger filing:

The fair value of Dynegy's property, plant and equipment related to its power generation assets was estimated using a discounted cash flow method which was based on a number of factors including forecasted power prices, fuel prices, capacity revenues, operating parameters, operating and maintenance costs and other variables. The cash flows for each respective generation asset were discounted using rates between 7% and 9%, depending on the related technology and market that each respective asset operates in.³⁴

Q. Knowing that Dynegy and Vistra determined fair value by discounting future cash flows at a risk-adjusted rate of return, do you think the cash flows used in the models are achievable, as is suggested in the italicized section below from Ernst & Young's report:

If fair value is determined by discounting future cash flows at a risk-adjusted rate of return, the written-down assets likely will be very profitable in the future if the entity achieves the cash flows used in the model.

A. Yes. These models forecasted cash flows at a time when the MISO capacity price is very low at \$1.50 (\$/MW-Day). To put this into context, the prior year the MISO capacity auction price was \$72 (\$/MW-Day). The year before that, the MISO capacity auction price was \$150 (\$/MW-Day). Therefore, I believe the cash flows used in the model would be achievable.³⁵

³⁴See Schedule 14A, *supra* note 27, at 322.

³⁵See *Resource Adequacy*, MISOENERGY.ORG, <https://www.misoenergy.org/planning/resource-adequacy/#nt=%2Fplanningdoctype%3APRA%20Document%2Fplanningyear%3APY%2016-17&t=10&p=0&s=FileName&sd=desc> (last visited Apr. 2, 2018).

Q. Assuming the cash flows used in the models are achievable, if the MISO segment operates under the same circumstances next year as it did this year, would the segment have an operating profit?

A. Yes. Assuming the cash flows are achievable and that the MISO segment operates under roughly the same circumstances or better, the segment would not incur the non-cash impairment expenses which are driving the loss and the non-cash depreciation expense would also be lower. This would result in an operating profit of at least \$55 million.

Q. So that would mean that all of the financial metrics used in this rulemaking for the MISO segment would be positive?

A. Yes. According to Dynegy's SEC filings, the MISO segment's 2017 year-end gross margin was \$429 million; the MISO segment's year-end 2017 adjusted EBITDA was \$152 million; the MISO segment's year-end 2017 free cash flow was \$123 million. If the non-cash impairment expenses are not included, the MISO segment shows \$55 million in operating profit instead of an operating loss of \$44 million.³⁶

III. CONCLUSION

This concludes my testimony.

³⁶ See Exhibit A— Dynegy's Discussion of Segment Adjusted EBITDA — Year Ended December 31, 2017 Compared to Year Ended December 31, 2016 for the MISO segment; Exhibit D— Dynegy Management Projections; Exhibit E— Free Cash Flow Calculation for the MISO Segment Based on Formula Presented in Dynegy Management Projections.

Respectfully submitted,

Date: April 3, 2018

/s/Tamara Dzubay

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Exhibits to Prefiled Testimony of Tamara Dzubay

Exhibit A— Dynegy’s Discussion of Segment Adjusted EBITDA — Year Ended December 31, 2017 Compared to Year Ended December 31, 2016 for the MISO segment

Exhibit B— Textbook Calculation of MISO Segment’s Free Cash Flow

Exhibit C— Dean Ellis’ Calculation of Free Cash Flow

Exhibit D— Dynegy Management Projections

Exhibit E— Free Cash Flow Calculation for the MISO Segment Based on Formula Presented in Dynegy Management Projections

Exhibit F— Difference in Dynegy’s Calculations

Exhibit G— Impairment of Long-Lived Assets

Exhibit H— Dynegy’s Impairment Table

Exhibit A—Dynergy's Discussion of Segment Adjusted EBITDA — Year Ended December 31,
2017 Compared to Year Ended December 31, 2016 for the MISO segment

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MISO Segment

The following table provides summary financial data regarding our MISO segment results of operations for the years ended December 31, 2017 and 2016, respectively:

(dollars in millions, except for price information)	Year Ended December 31,		Favorable (Unfavorable) \$ Change
	2017	2016	
Operating Revenues			
Energy	\$ 920	\$ 1,027	\$ (107)
Capacity	210	163	47
Mark-to-market income (loss), net	21	(47)	68
Contract amortization	(6)	(13)	7
Other	7	7	—
Total operating revenues	1,152	1,137	15
Operating Costs			
Cost of sales	(731)	(762)	31
Contract amortization	8	21	(13)
Total operating costs	(723)	(741)	18
Gross margin	429	396	33
Operating and maintenance expense	(300)	(347)	47
Depreciation expense	(75)	(81)	6
Impairments	(99)	(793)	694
Gain on sale of assets, net	1	1	—
Acquisition and integration costs	—	8	(8)
Other	—	(16)	16
Operating loss	(44)	(832)	788
Depreciation and amortization expense	91	87	4
Bankruptcy reorganization items	494	(96)	590
Other income and expense, net	26	15	11
EBITDA	567	(826)	1,393
Adjustments to reflect Adjusted EBITDA from noncontrolling interest	2	2	—
Acquisition, integration, restructuring and bankruptcy reorganization costs	—	(8)	8
Bankruptcy reorganization items	(494)	96	(590)
Mark-to-market adjustments	(21)	47	(68)
Impairments	99	793	(694)
Gain on sale of assets, net	(1)	(1)	—
Non-cash compensation expense	1	6	(5)
Other (1)	(1)	20	(21)
Adjusted EBITDA	\$ 152	\$ 129	\$ 23
Million Megawatt Hours Generated	29.1	29.8	(0.7)
IMA for Coal-Fired Facilities (2)	89%	89%	
Average Capacity Factor for Coal-Fired Facilities (3)	63%	53%	
CDDs (4)	1,272	1,652	(380)
HDDs (4)	4,534	4,662	(128)
Average Market On-Peak Power Prices (\$/MWh) (5):			
Indiana (Indy Hub)	\$ 34.36	\$ 33.71	\$ 0.65
Commonwealth Edison (NI Hub)	\$ 32.28	\$ 31.98	\$ 0.30

Electronic Filing: Received, Clerk's Office 4/03/2018

Exhibit B— Textbook Calculation of MISO Segment's Free Cash Flow

Source: Dynegy's 2017 10-K

Note: Calculations are based on year-end 2017 financial results

MISO Segment Free Cash Flow

Net Operating Profit After Tax	-28.6	See calculation below
Plus Non-cash Expenses	190	See calculation below
Minus Capital Expenditures	29	p. 41 of the 2017 10-K
Minus Change in Net Working Capital	15.5	See calculation below
Free Cash Flow (in millions)	\$116.9	

Net Operating Profit After Tax Calculation

Operating Income/Loss	-44	p. 57 of the 2017 10-K
Times 1 - tax rate of 35%	65%	p. 10 of the 2017 10-K
Total	-28.6	

Non-cash Expenses Calculation

Plus Depreciation & Amortization	91	p. 57 of the 2017 10-K
Plus Impairments	99	p. 57 of the 2017 10-K
Total	190	

Change in Net Working Capital Calculation For Company*

Plus Change in Accounts Receivable	127	F-4 of the 2017 10-K
Plus Change in Inventory	0	F-4 of the 2017 10-K
Plus Change in Prepayments	-6	F-4 of the 2017 10-K
Minus Change in Accounts Payable	35	F-5 of the 2017 10-K
Minus Change in Accrued Liabilities and Other Current Liabilities	21	F-5 of the 2017 10-K
Total	65	

Change in Working Capital Calculation For MISO Segment

Change in Working Capital for Company	65	See calculation above
Times MISO Contribution to Revenues	23.8%	See calculation below
Total	15.5	

MISO contribution to revenues

MISO Revenues	1,152	F-61 of the 2017 10-K
Consolidated Company Revenues	4,842	F-61 of the 2017 10-K
Total	23.8%	

*Net working capital is calculated as current operating assets minus current operating liabilities.

Change in net working capital is calculated as net working capital in 2017 minus net working capital in 2016.

Electronic Filing: Received, Clerk's Office 4/03/2018

Exhibit C— Dean Ellis' Calculation of Free Cash Flow

Source: Dynegy's 2017 10-K

Note: Calculations are based on year-end 2017 financial results

MISO Segment Free Cash Flow

Operating Income/Loss	-44	p. 57 of the 2017 10-K
Minus Capital Expenditures	29	p. 41 of the 2017 10-K
Plus Non-cash Expenses	190	See calculation below
Free Cash Flow (in millions)	\$117	

Non-cash Items Calculation

Plus Depreciation & Amortization	91	p. 57 of the 2017 10-K
Plus Impairments	99	p. 57 of the 2017 10-K
Total	190	

Exhibit D— Dynegey Management Projections

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Except to the extent required by applicable federal securities laws, Dynegey has not updated, and expressly disclaims any responsibility to update or otherwise revise, the Dynegey Management Projections to reflect circumstances existing after the date when Dynegey senior management prepared the Dynegey Management Projections or to reflect the occurrence of future events or changes in general economic or industry conditions, even in the event that any of the assumptions underlying the Dynegey Management Projections are shown to be in error. Dynegey urges all Dynegey stockholders to review Dynegey's most recent SEC filings for information relating to Dynegey's reported financial results.

Certain of the measures included in the Dynegey Management Projections may be considered non-GAAP financial measures, including EBITDA (Adjusted EBITDA) and Unlevered Free Cash Flow (Adjusted Free Cash Flow). Non-GAAP financial measures should not be considered in isolation from, or as a substitute for, or superior to, financial information presented in compliance with GAAP. Non-GAAP financial measures used by Dynegey may not be comparable to similarly titled amounts used by other companies. In addition, the quantitative reconciliation of the forward-looking non-GAAP financial measures omits a reconciliation of Net Income to EBITDA because Dynegey would not be able to provide such reconciliation without unreasonable efforts.

Dynegey Management Projections

Fiscal year ending December 31,

	(\$ in millions)				
	<u>2017E(6)</u>	<u>2018E</u>	<u>2019E</u>	<u>2020E</u>	<u>2021E</u>
Gross Margin(1)	—	2,566	2,390	2,126	2,067
Fixed O&M	—	(953)	(921)	(927)	(949)
SG&A	—	(140)	(141)	(144)	(147)
Other	—	(6)	10	32	49
EBITDA (Adjusted EBITDA)(2)	1,160	1,468	1,338	1,087	1,021
Capex(3)	—	(279)	(266)	(260)	(207)
AROs	—	(36)	(38)	(7)	(23)
Pension / LTSA / Other(4)	—	(28)	(38)	2	(86)
Unlevered Free Cash Flow (Adjusted Free Cash Flow)(5)	—	1,125	996	822	704

(1) Gross Margin means revenue minus costs of services.

(2) The non-GAAP measure EBITDA (Adjusted EBITDA) means Gross Margin, minus Fixed O&M, SG&A and Other.

(3) Includes maintenance, environmental and growth capital expenditures. Also includes environmental capex attributable to EPA's Effluent Limitations Guidelines, EPA's final rule regarding Section 316(a) and 316(b) in the Clean Water Act, and EPA's final rule regarding the safe disposal of coal combustion residuals.

(4) Includes LTSA adjustments and funding requirements for pensions and ARO outlays for operating assets and announced retirements.

(5) The non-GAAP measure Unlevered Free Cash Flow (Adjusted Free Cash Flow) means EBITDA (Adjusted EBITDA), minus Capex, AROs and Pension / LTSA / Other.

(6) Assumes pro forma for sale of Milford (MA), Dighton, Lee, Troy and Armstrong as if sales closed January 1, 2017.

Exhibit E— Free Cash Flow Calculation for the MISO Segment Based
on Formula Presented in

Source: Dynegey's 2017 10-K Dynegey Management Projections

Note: Calculations are based on year-end 2017 financial results

MISO Segment Free Cash Flow

Adjusted EBITDA	152	p. 57 of the 2017 10-K
Minus Capital Expenditures	29	p. 41 of the 2017 10-K
Minus AROs	0	
Minus Pension / LTSA / Other	0	
Free Cash Flow (in millions)	\$123	

Exhibit F— Difference in Dynegy's Calculations

Source: Dynegy's 2017 10-K

Note: Calculations are based on year-end 2017 financial results

Difference in Dynegy's MISO Segment Free Cash Flow Calculations

Other income and expense	26	p. 57 of the 2017 10-K
Mark to market adjustments	-21	p. 57 of the 2017 10-K
Gain on sale of assets	-1	p. 57 of the 2017 10-K
Other	-1	p. 57 of the 2017 10-K
Non-cash compensation expense	1	p. 57 of the 2017 10-K
Non-controlling interests	2	p. 57 of the 2017 10-K
Total (in millions)	\$6	

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Exhibit G— Impairment of Long-Lived Assets

Description	Judgments and Uncertainties	Effect if Actual Results Differ From Assumptions
<p>Impairment of Long-Lived Assets</p> <p>ASC 360, Property, Plant and Equipment (“PP&E”) requires for an entity to assess whether the recorded values of PP&E and finite-lived intangible assets have become impaired when certain indicators of impairment exist. Examples of these indicators include, but are not limited to:</p> <ul style="list-style-type: none"> ● a significant decrease in the market price of a long-lived asset (asset group); ● a significant adverse change in the extent or manner in which a long-lived asset (asset group) is being used, or in its physical condition; ● a significant adverse change in legal factors or in the business climate that could affect the value of a long-lived asset (asset group), including an adverse action or assessment by a regulator; ● an accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of a long-lived asset (asset group); ● a current-period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset (asset group); and ● a current expectation that it is more likely than not a long-lived asset (asset group) will be sold or otherwise disposed of significantly before the end of its previously estimated useful life. 	<p>Determining whether an impairment trigger exists involves significant judgment by management which may result in a different answer if our peers were to consider the same facts and circumstances.</p> <p>If it is determined that the asset’s value is not recoverable, then we will perform step two of the impairment analysis and fair value the asset using a DCF model and record an impairment charge to reduce the value of the asset to its fair value. The assumptions and estimates used by management to assess whether the asset may have become impaired, whether the asset’s value is recoverable, and to determine the fair value of the estimate are significant and may vary materially from the assumptions used by our peers.</p> <p>Examples of the assumptions and estimates used by management include:</p> <ul style="list-style-type: none"> ● determination of increases/decreases in the market price of an asset being a short-term or long-term, fundamental change; ● the highest and best use of the asset; ● forecasted environmental changes; ● forecasted regulatory changes; ● management’s fundamental view of the long-term pricing environment for energy and capacity; ● management’s forecast of gross margin, capital expenditures, and operations and maintenance costs; ● remaining useful life of our assets; ● salvage value; ● discount rates; and ● inflation rates. <p>The assumptions used in impairment analyses often include unobservable inputs that are based on management’s long-term view of our assets remaining useful lives, operating margin and capital requirements.</p>	<p>Changes in market economics and environmental requirements can alter previous assumptions and trigger impairment charges that can materially differ from the results we have reported herein.</p>

Exhibit H— Dynegey's Impairment Table

DYNEGEY INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Impairments

During the years ended December 31, 2017, 2016 and 2015, we recognized the following impairments in our consolidated statements of operations (amounts in millions).

Facility	Fair Value	2017	2016	2015
Baldwin (1)	\$ 97	\$ —	\$ 645	\$ —
Stuart (2)	\$ —	—	56	—
Newton FGD (3)	\$ —	—	148	—
Killen (4)	\$ —	20	—	—
Hennepin (1)	\$ 16	10	—	—
Havana (1)	\$ 37	89	—	—
Wood River (5)	\$ —	—	—	74
Brayton Point (6)	\$ 86	—	—	25
Total PP&E Impairments		\$ 119	\$ 849	\$ 99
Inventory	\$ —	14	—	—
Equity investment	\$ 173	—	9	—
Assets held-for-sale, including \$9 of allocated goodwill	\$ 176	15	—	—
Total Impairments		\$ 148	\$ 858	\$ 99

- (1) Units failed to recover their basic operating costs in the MISO capacity auctions. The impairment was measured using a DCF model. As part of our impairment analysis, we changed the remaining useful lives of certain of our facilities.
- (2) We determined that the facility would experience recurring negative cash flows due to on-going required maintenance and environmental capital expenditures, combined with consistently poor reliability. The impairment was measured using a DCF model.
- (3) We terminated the flue gas desulfurization ("FGD") systems construction project at our Newton generation facility. The impairment charge was equal to the capitalized cost of the project.
- (4) In first quarter 2017, Dayton Power and Light Co., the partner and operator of Killen, announced the shutdown of the Killen generation facility by June 2018. As a result, the DCF model for the facility indicated negative cash flows, resulting in an impairment charge equal to its book value.
- (5) Primarily attributable to its uneconomic operation stemming from a poorly designed wholesale capacity market and increased environmental costs. The impairment was measured using a DCF model.
- (6) Temperate weather had a significant impact on the facility's remaining cash flows, as the facility retired in May 2017. The impairment was measured using a DCF model.

Brayton Point Retirement

The Brayton Point facility officially retired on June 1, 2017. During the year ended December 31, 2017, we recognized approximately \$12 million of severance costs, which were classified within Operating and maintenance expense in our consolidated statement of operations.

Note 9—Joint Ownership of Generating Facilities

We hold ownership interests in certain jointly owned generating facilities. We are entitled to the proportional share of the generating capacity and the output of each unit equal to our ownership interests. We pay our share of capital expenditures, fuel inventory purchases, and operating expenses, except in certain instances where agreements have been executed to limit certain joint owners' maximum exposure to the additional costs. Our share of revenues and operating costs of the jointly owned generating facilities is included within the corresponding financial statement line items in our consolidated statements of operations.