COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Application of Kentucky Power Company for Approval of its Environmental Compliance Plan, Approval of its Amended Environmental Cost Recovery Surcharge Tariffs, and for the Grant of Certificates of Public Convenience and Necessity for the Construction and Acquisition of Related Facilities	)))))	**CASE NO. 2011-00401**

NOTICE OF ERRATA TO DR. JEREMY FISHER'S DIRECT TESTIMONY (PUBLIC AND CONFIDENTIAL) AND JAMES RICHARD HORNBY'S DIRECT TESTIMONY (PUBLIC VERSION)

Please take notice that Intervenors Tom Vierheller, Beverly May, and Sierra Club (collectively "Environmental Intervenors") are filing errata to Dr. Jeremy Fisher's Direct Testimony (Public and Confidential Versions) and James Richard Hornby's Direct Testimony (Public Version).

Note regarding confidential treatment: information contained on the Revised page 18, lines 20-23, of the Confidential Version of the Direct Testimony of Dr. Jeremy Fisher is subject to a prior petition for confidential treatment filed by Mark R. Overstreet on behalf of Kentucky Power Company on January 30, 2012.

Dr. Jeremy Fisher's Direct Testimony (Public and Confidential versions) Errata:

- Page 11 line 7. Replace "Exhibit JIF-2 "with "Exhibit JIF-S2"
- Page 11. Replace Figure 1 with a revised Figure 1.

- Page 15 lines 9-10. Replace "I deducted 40% of the gross market sales from the KPCo system on an annual basis" with "I deducted 40% of the market sales (net of the variable cost of production) from the KPCo system on an annual basis"
- Page 15 lines 16-17. Replace "The CPW of Option 1 rises by close to $400 million, while the other scenarios rise by $260-$300 million." with "The CPW of Option 1 rises by about $100 million, while the other scenarios rise by about $80 million."
- Page 17. Replace Table 1 with revised Table 1 and insert term "revised" in parenthesis at end of Table 1 caption.
- Page 18 line 2. Replace phrase "anywhere from (-$49) to (-$229) M 2011$" with "anywhere from (-$131) to (-$311) M 2011$"
- Page 25 line 18. Replace "Exhibit JIF-3C" with "Exhibit JIF-S3C"
- Page 26. Replace Table 3 with revised Table 3 and insert term "revised" in parenthesis at end of Table 3 caption.
- Page 37 line 13. Replace "Exhibit JIF-3F" with "Exhibit JIF-S3F"
- Page 38. Replace Table 6 with revised Table 6 and insert term "revised" in parenthesis at end of Table 6 caption.
- Page 67 line 22. Change the phrase "the FGD is over $600 million dollars" to "the FGD is at least $470 million dollars"

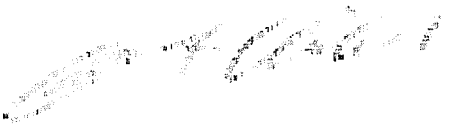
James Richard Hornby Direct Testimony Public Version Errata:

- Page 18 line 17. Add "revised" after Exhibit___(JRH-7)
- Page 19. Replace bar chart with revised bar chart.

Attached to this Notice of Errata are revised testimony pages 11, 15, 17, 18, 25, 26, 37, 38, and 67 to Dr. Fisher's Direct Testimony (both public and confidential version), revised

Exhibits JIF-S2 Revised and JIF-S3 Revised, revised testimony pages 18 and 19 for James Richard Hornby's Direct Testimony Public Version and revised Exhibit JRH-7 Revised.

Respectfully submitted,



Joe Childers, Esq.
Joe F. Childers & Associates
300 Lexington Building
201 West Short Street
Lexington, Kentucky 40507
859-253-9824
859-258-9288 (facsimile)

Of counsel:

Kristin Henry, Staff Attorney
Sierra Club
85 Second Street
San Francisco, CA 94105
Phone: (415) 977-5716
Fax: (415) 977-5793
kristin.henry@sierraclub.org

Shannon Fisk, Senior Attorney
Earthjustice
156 William Street
Suite 800
New York, New York 10038
212-791-1881 ext. 8239
sfisk@earthjustice.org

Dated: April 12, 2012

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Application of Kentucky Power Company for Approval of its Environmental Compliance Plan, Approval of its Amended Environmental Cost Recovery Surcharge Tariffs, and for the Grant of Certificates of Public Convenience and Necessity for the Construction and Acquisition of Related Facilities	)))))	**CASE NO. 2011-00401**

AFFIDAVIT OF DR. JEREMY FISHER FOR ERRATA TO DIRECT TESTIMONY (PUBLIC AND CONFIDENTIAL VERSION)

Commonwealth of)
Massachusetts)
)

Dr. Jeremy Fisher, being first duly sworn, states the following: The prepared errata to the Direct Testimony (Public and Confidential Version) and associated exhibits filed on Wednesday, March 19, 2012 constitute the errata to the direct testimony of Affiant in the above-styled cases. Affiant states that he would give the answers set forth in the errata to the Direct Testimony, Public and Confidential Versions, if asked the questions propounded therein. Affiant further states that, to the best of his knowledge, his statements made are true and correct.

Dr. Jeremy Fisher

SUBSCRIBED AND SWORN to before me this 11 day of April 2012.

Notary Public

My Commission Expires:

JANICE CONYERS
Notary Public
Commonwealth of Massachusetts
My Commission Expires
July 27, 2018

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Application of Kentucky Power Company for Approval of its Environmental Compliance Plan, Approval of its Amended Environmental Cost Recovery Surcharge Tariffs, and for the Grant of Certificates of Public Convenience and Necessity for the Construction and Acquisition of Related Facilities	)))))	**CASE NO. 2011-00401**

AFFIDAVIT OF JAMES RICHARD HORNBY FOR ERRATA TO DIRECT TESTIMONY (PUBLIC VERSION)

Commonwealth of)
Massachusetts)
)

James Richard Hornby, being first duly sworn, states the following: The prepared errata to Direct Testimony (Public Version) and associated exhibit filed on Wednesday, April 19, 2012 constitute the errata to the direct testimony of Affiant in the above-styled cases. Affiant states that he would give the answers set forth in the errata to Direct Testimony, Public Version, if asked the questions propounded therein. Affiant further states that, to the best of his knowledge, his statements made are true and correct.

James Richard Hornby

SUBSCRIBED AND SWORN to before me this 11 day of April 2012.

Notary Public

My Commission Expires:

JANICE CONYERS
Notary Public
Commonwealth of Massachusetts
My Commission Expires
July 27, 2018

CERTIFICATE OF SERVICE

I certify that I mailed a copy of Intervenors Tom Vierheller, Beverly May, and Sierra Club Notice of Errata by first class mail on April 12, 2012 to the following:

R. Benjamin Crittenden
Laura S. Crittenden
Mark R. Overstreet
Attorney at Law
Stites & Harbison
421 West Main Street
P. O. Box 634
Frankfort, KY 40602-0634

Jennifer B. Hans
Dennis G. Howard II
Lawrence W. Cook
Assistant Attorney General's Office
1024 Capital Center Drive, Suite 200
Frankfort, KY 40601-8204

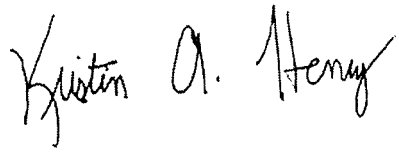
Michael L. Kurtz
Kurt J. Boehm
David F. Boehm
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, OH 45202

Lila P. Munsey
Manager, Regulatory Services
Kentucky Power
101A Enterprise Dr.
Frankfort, KY 40601

Walter P. Drabinski
Vantage Energy Consulting, LLC
21460 Overseas Highway
Cudjoe Key, Florida 33042

Chuck Buechel
Vantage Energy Consulting
P.O. Box 75018
Fort Thomas, Kentucky 41075

Mike Boismenu
2645 West Marion Avenue, Apt. 111
Punta Gorda, Florida 33950



Kristin Henry

Q What is your overall finding?

A When we correct knowable errors within the Company's fundamental Strategist analysis, each and every alternative explored by the Company – repowering Big Sandy 1 as a natural gas unit, replacing the Big Sandy 2 unit with a brownfield NGCC, or purchasing market power to 2020 to 2025 – are all more cost-effective than the FGD retrofit by a wide margin.

Figure 1 below (also **Exhibit JIF-S2)** shows the total cumulative present worth (CPW) of Options 1, 2, & 4A under the Company's "BASE" assumptions on the left, and the gap that appears to render Option 1 least cost of these three options. On the right, I show the results of our analysis after correcting the Company's capital carrying costs, an allocation of off system sales (OSS) to shareholders, and running the model under a low-bound carbon dioxide cost (CO_2) representative of that used by other utilities and organizations.

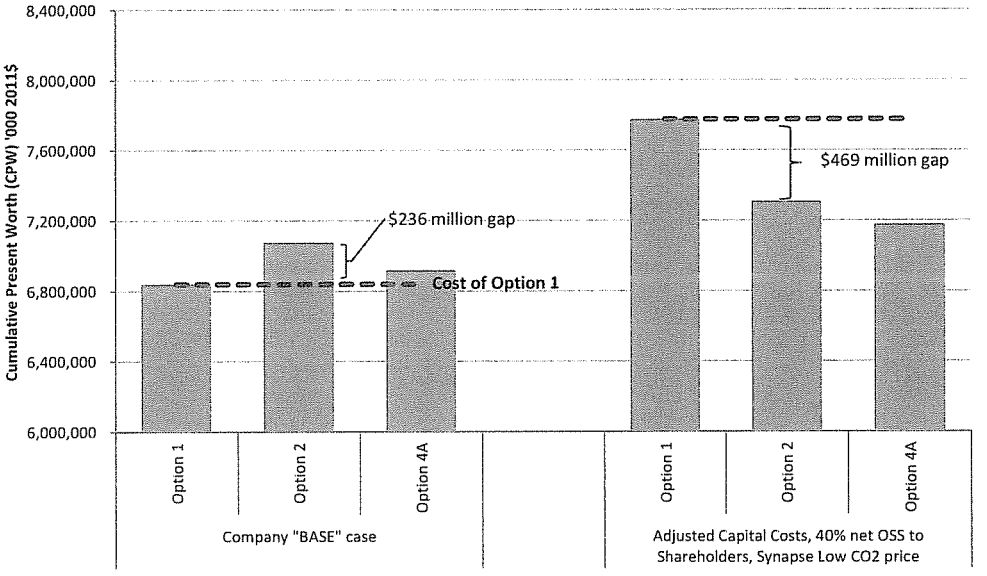


Figure 1. Cumulative present worth (CPW) of Options 1 (retrofit), 2 (NGCC replace in 2016), and 4A (market purchase to 2020) under Company Base assumptions (left) and Synapse revised assumptions and corrections (right). See text for details.

allocated all OSS revenues back to ratepayers, rather than splitting these revenues with shareholders.[10]

If the Company expects that the current 40-60 revenue split will continue through the analysis period, then the expectation of ratepayer benefit assumed in the modeling should be different.

Q To what extent would sharing off-system revenues with shareholders impact the net outcome of the Strategist analysis?

A I tested how the split in OSS revenues might affect the outcome of this analysis. Using the Strategist output of market sales out of KPCo,[11] I deducted 40% of the gross market sales from the KPCo system on an annual basis, and, following the Company's method for calculating the total cumulative present worth (CPW), subtracted the remaining revenues from the stream of costs and calculated a new CPW.

The result of allocating 40% of OSS revenues to shareholders drives up the cost seen by ratepayers – but drives it up faster in those scenarios where KPCo has greater off-system sales, in this case Option 1. The CPW of Option 1 rises by close to $400 million, while the other scenarios rise by $260-$300 million. Ultimately, the net effect is to narrow the gap between Option 1 and the other alternatives – and makes the market purchase options more attractive, even tipping the balance of Option 4A (market purchases to 2020) into a net benefit relative to the retrofit (see

[10] Received from the Company in response to Sierra DR 1-1, the 2011 EEI Fact Book (Nov. 2011) the Company reminds investors that Kentucky has an OSS sharing mechanism allocating 60% of OSS to ratepayers (p69).

[11] Generation and Fuel Module System Report from Strategist, line "Econ Energy Sales" in KPCO section.

Table 1. Cumulative present worth of revenue requirements (M 2011$): Reanalysis with adjusted off-system sales (revised).

Cumulative Present Worth of Revenue Requirements (M 2011$) Re-Analysis with Adjusted Off System Sales	Option #1 Retrofit Big Sandy 2 w/ FGD	Option #2 NGCC Replacement	Option #3 BS1 Repower	Option #4A Market to 2020; NGCC in 2020	Option #4B Market to 2025; NGCC in 2025
Company Assumptions					
CPW	6,839	7,075	7,091	6,918	6,791
Net benefit of retrofit (CPW)		236	252	78	(48)
Adjusted Off System Sales					
CPW	6,943	7,154	7,171	6,993	6,862
Net benefit of retrofit (CPW)		211	228	49	(81)

5. STRATEGIST CONCERNS – CAPITAL EXPENSES AND CARRYING COSTS

Q What is problematic about capital expenses as used in the Company's model?

A I have identified two problems. First, values presented in Mr. Weaver's direct testimony in Table 2 (p24) are based on erroneous calculations and double-count AEP's 7% overhead in the cost of the replacement natural gas combined cycle (NGCC or CC) unit. Secondly, and more problematic, relative to values then stated in Mr. Weaver's Table 2 and associated discovery[12] the capital costs used in the Strategist model appear to be incorrect. After adjusting for Allowances for Funds Used During Construction (AFUDC), the Strategist carrying costs are:

- Depressed for the FGD retrofit project by about 11%
- Inflated for the replacement NGCC in Options 2, 4A, and 4B by about 43%, and
- Inflated for the capital cost of repowering in Option 3 by about 33%.

I have not corrected the first error leading to Mr. Weaver's values in Table 2, but I have corrected the Strategist carrying costs to be consistent with Mr. Weaver's Table 2. Correcting values back to those given by Mr. Weaver dramatically changes the final outcome of this analysis. In the Company's base case, the

[12] The values in Weaver Table 2 (p24) are presented as streams of capital expenses (DFGD, new build-NGCC, and repowered NGCC at Big Sandy 1) in Sierra DR 1-69 "Capital Cost of BS2 FGD and CC Alternatives used in L-T Modeling.xls"

retrofit of the FGD is non-economic relative to *all* other Options by anywhere from (-$131) to (-$311) M 2011$. The exact nature of this discrepancy is discussed further, below.

Capital Cost for NGCC inflated by 7% in Weaver, Table 2

Q The first problem you identified is that the capital costs of in Table 2 of Mr. Weaver's testimony appear to be overstated. Would you explain further?

A The values in Table 2 can be traced back to at least three separate work papers provided in response to Sierra DR 1-69 – each one starting where the last left off. The latter two both add in overhead costs for AEP and therefore overstate the cost of the NGCC. I trace through the following calculations in **Exhibit JIF-4**.

- The first paper appears to be a direct estimate summary from S&L and produces a "Total Project Cost" of $786 M (2011$).[13]
- The second paper is a summary of the total costs, plus additional costs, including an AEP Owner's Cost and the cost of interconnections.[14] The AEP Owner's cost amounts to nearly 7% of the total project cost and brings the total from $790 to $844 M (2011$).[15] Between the interconnection cost and escalating the cost to nominal dollars, the final value given here is $969 M (Nominal $).
- The third paper is a summary of the economic outcome of a retire/retrofit decision, conducted in August of 2011.[16] This paper *starts* with [redacted]

[13] Big Sandy CC Brownfield Build_Option 2 S&L Client Version DETAIL.xls

[14] Big Sandy CC Brownfield & U1 Repower S&L-based SUMMARY .xls

[15] Apparently the initial estimate was $790 M, revised down by S&L to $786. The higher value appears to propagate through the remainder of the estimate given in direct testimony.

[16] Confidential file "PRELIMINARY_Relative BS2 Unit Disposition Alt Economics_081711.xls"

The following table illustrates the magnitude of the capital cost correction (also in **Exhibit JIF-3B**).

Table 2. Cumulative present worth of revenue requirements (M 2011$): Reanalysis with corrected capital costs.

Cumulative Present Worth of Revenue Requirements (M 2011$) Re-Analysis with Corrected Capital Costs	Option #1 Retrofit Big Sandy 2 w/ FGD	Option #2 NGCC Replacement	Option #3 BS1 Repower	Option #4A Market to 2020; NGCC in 2020	Option #4B Market to 2025; NGCC in 2025
Company Capital Costs					
CPW	6,839	7,075	7,091	6,918	6,791
Net benefit of retrofit (CPW)		236	252	78	(48)
Corrected Capital Costs					
CPW	6,921	6,679	6,790	6,632	6,610
Net benefit of retrofit (CPW)		(242)	(131)	(289)	(311)

In the first set of rows ("Company Capital Costs"), I show the outcome of the Company's Strategist run and capital carrying charges, and the net benefit of retrofit. These values are virtually identical to those found in Exhibit SCW-4A.[24]

In the second set of rows ("Corrected Capital Costs"), I show the outcome of the same Strategist runs with adjusted capital carrying charges as described above. The CPW of Option 1 is increased by nearly $100 million, while the other options fall by anywhere from $280 to $400 million. With these corrections, the net benefit of the retrofit evaporates – all other options are less expensive than the retrofit by a fairly wide margin.

When paired with the adjusted off-system sales, as discussed previously in my testimony, the net effect is that the Big Sandy retrofit is far less economic for ratepayers than any other Option examined by the Company (see table below; also in **Exhibit JIF-S3C**).

[24] The values appear to differ slightly because of small differences in the Strategist runs. As described by Ms. Wilson, Synapse used Strategist input files provided by AEP and modified after a discussion with Mr. Mark. A. Becker, a modeler provided by AEP. According to AEP, these runs should have produced identical output to that used in this proceeding.

Table 3. Cumulative present worth of revenue requirements (M 2011$): Reanalysis with corrected capital costs and adjusted off-system sales (revised).

Cumulative Present Worth of Revenue Requirements (M 2011$) Re-Analysis with Adjusted Off System Sales & Corrected Capital Costs	Option #1 Retrofit Big Sandy 2 w/ FGD	Option #2 NGCC Replacement	Option #3 BS1 Repower	Option #4A Market to 2020, NGCC in 2020	Option #4B Market to 2025, NGCC in 2025
Company Assumptions					
CPW	6,839	7,075	7,091	6,918	6,791
Net benefit of retrofit (CPW)		236	252	78	(48)
Corrected Capital Costs & Off System Sales					
CPW	7,025	6,759	6,870	6,708	6,681
Net benefit of retrofit (CPW)		(267)	(155)	(318)	(344)

Q Have you used any of your own capital or financial assumptions in creating these tables?

A I have not. I used capital assumptions from the direct testimony of Mr. Weaver and as presented in discovery, and financial assumptions copied directly from discovery and workpapers supporting Mr. Weaver's testimony.

6. STRATEGIST CONCERNS: FIXED O&M COSTS

Q What is your concern with the fixed operation and maintenance (O&M) costs used in the Company's model?

A The stream of fixed O&M costs in Option 1 (the retrofit case) drops markedly from 2030 to 2031 by about $36 million per year (nominal, or $27 M 2010$) and maintains at this lower value through the remainder of the analysis period.[25] We can trace this discrepancy back to the input (and output) for the Big Sandy 2 FGD from the Strategist model where fixed O&M costs for this single unit drop by $45 million (nominal, or $33 M 2010$) in 2030.

Q Would such a drop in fixed O&M costs be expected if the unit were continuing to operate in 2031 as it did in 2030?

A I can think of no reasonable explanation why fixed O&M costs, usually representing ongoing capital expenditures and maintenance activities, should decline so markedly in 2031.

[25] In the year 2040 fixed O&M appears to takes very high end-effects value as discussed by Ms. Wilson.

Table 6 (Exhibit JIF-S3F), below.

Table 6. Cumulative Present Worth (CPW) under Company CO_2 assumptions and Synapse Low CO_2 price, capital cost corrected and adjusted for off-system sales sharing (revised).

Cumulative Present Worth of Revenue Requirements (M 2011$) Re-Analysis with Synapse Low CO_2, Corrected Cap Costs & Adj Off-System Sales	Option #1 Retrofit Big Sandy 2 w/ FGD	Option #2 NGCC Replacement	Option #4A Market to 2020; NGCC in 2020
Company Assumptions			
CPW	6,839	7,075	6,918
Net benefit of retrofit (CPW)		236	78
Synapse Low CO2 Price, Corrected Capital Costs & Off System Sales			
CPW	7,776	7,306	7,177
Net benefit of retrofit (CPW)		(469)	(598)

Q What CO_2 price trajectory do you recommend?

A In large decisions where long-term CO_2 emissions are a tangible risk, it is incumbent on the Company to test a wide and reasonable range of CO_2 prices designed to bound the feasible risk faced by their ratepayers. As a reasonable starting point, I would recommend using the range provided in the Synapse 2011 CO_2 price forecast, using something akin to the Synapse Mid case as a reasonable reference. This price starts at \$15/tCO_2 in 2018 and rises (in real 2010$) linearly to \$80 in 2041, and holds at that price indefinitely.[44] The "low" bound starts at \$15/tCO_2 in 2020 and rises at a slower pace, reaching \$60 in 2050, while the "high" bound also starts at \$15 but at 2015 and reaches the \$80 saturation point in 2030. It may be reasonable to explore a complete absence of CO_2 price as one possible scenario (representing an inability to muster the political will to mitigate climate change), but I think this outcome over the next three decades is extremely unlikely.

Recalling that we have only tested the very lowest bounds of CO_2 prices in this re-analysis, I would expect that any higher prices would result in an even further economic advantage for Options 2 and 4A over the Big Sandy 2 retrofit.

[44] Synapse has assumed that \$80 represents a broad-scale abatement price at which emerging technologies (such as carbon capture and sequestration) might become cost effective, thus potentially saturating the market.

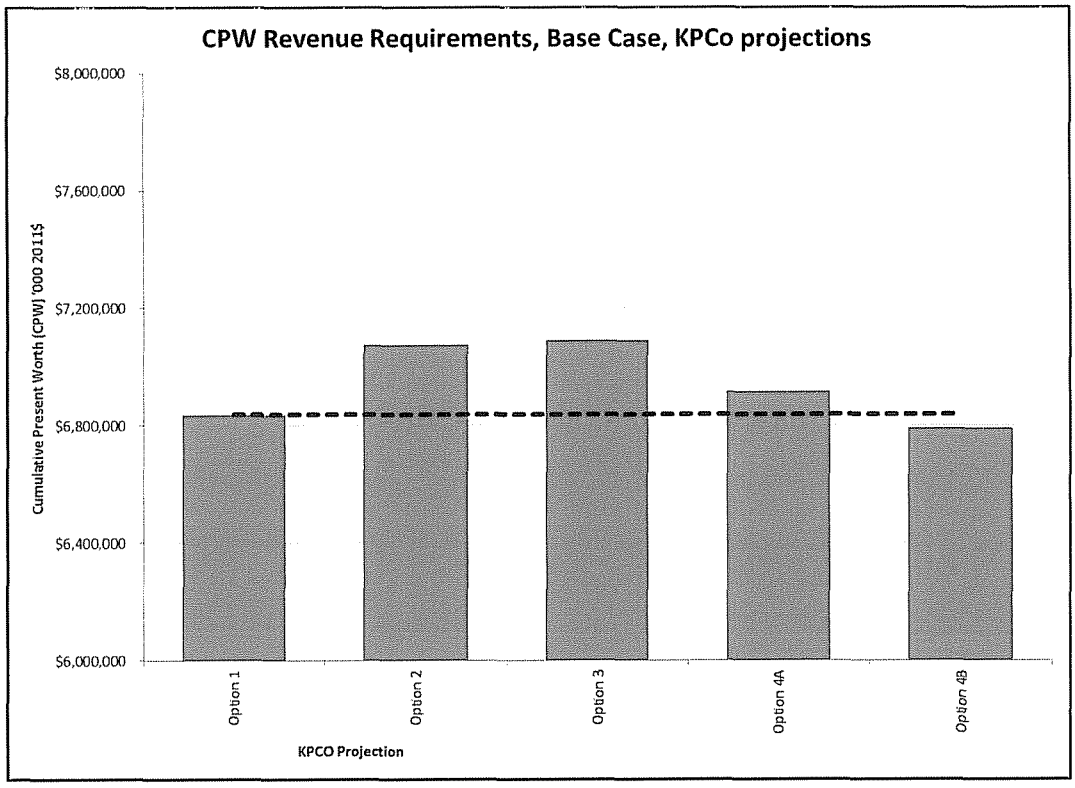
14. CONCLUSIONS

Q What conclusions are you able to draw on the basis of your analysis of the Company's application for CPCN at the Big Sandy 2 unit?

A I conclude that the Company has not provided sufficient evidence that retrofitting the Big Sandy 2 unit with an FGD would be the best option for Kentucky ratepayers. The evidence that the Company has provided is internally inconsistent and ill-founded; when fundamental errors are corrected, the economic benefit found by the Company is removed and reversed.

I find that:

- if the Company expects to continue allocating a sizable portion of revenues from off-system sales to shareholders rather than ratepayers, the relative advantage of the FGD is greatly diminished;
- according to the Company's own analysis, using values for capital expenditure that are consistent with those reported by the Company in direct testimony, the FGD would be the least economic option of those examined;
- the Company's projected CO_2 price forecast is inconsistent with other utilities and the industry at large, and exposes ratepayers to significant regulatory risk. By correcting this value to even a reasonable low bound, the, the relative advantage of the FGD retrofit is eliminated;
- adjusting for off-system sales revenues, capital cost corrections, and a reasonable low bound CO_2 price reveals that the FGD is at least $470 million dollars (in cumulative present worth) more expensive than other options explored by the Company;
- the Company's risk analysis in Strategist are insufficient to elucidate a reasonable range of risks to consumers; and

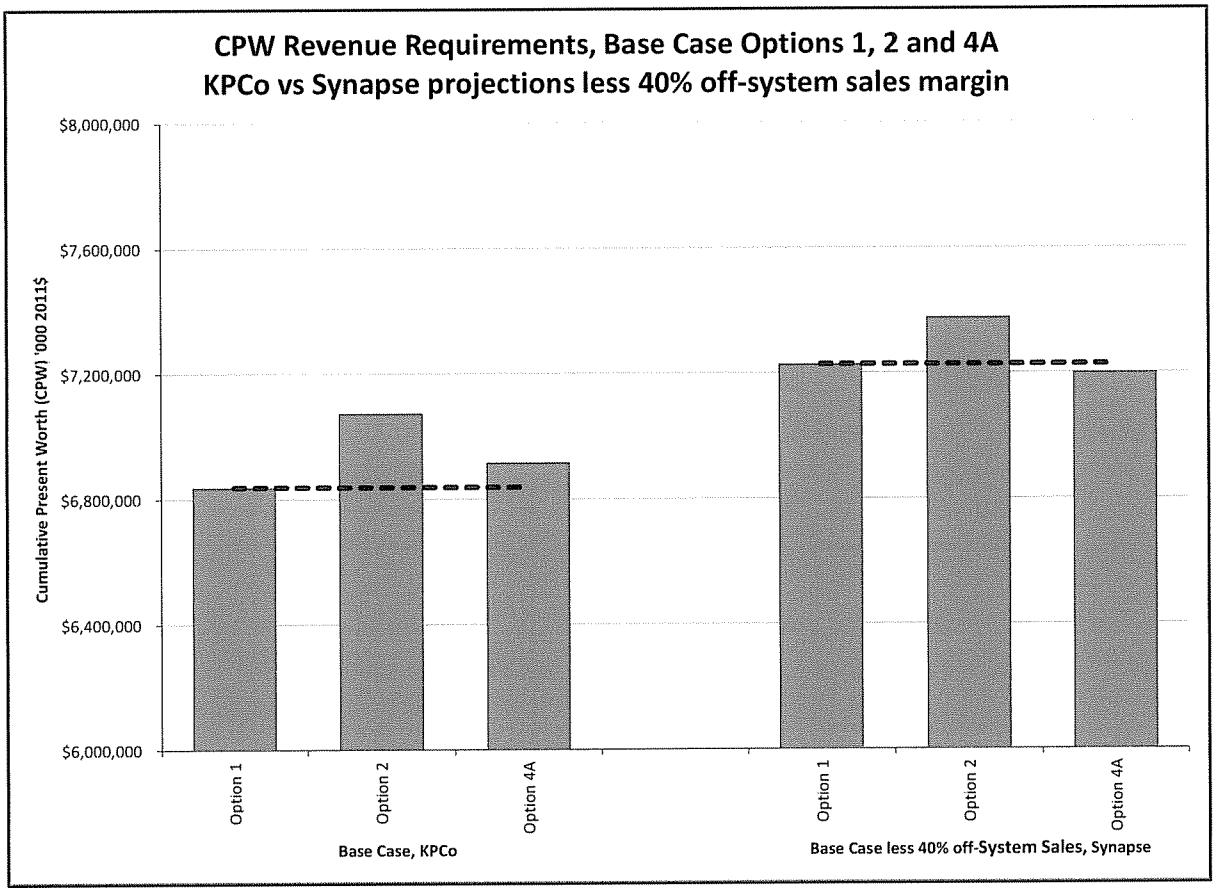


In the balance of my testimony, I use the Company's projections for Option 1, Option 2 and Option 4A under its Base Case to illustrate the problems we have found with its projections.

Q. Please comment on the Company's treatment of margin from off-system sales in its projection of revenue requirements for each resource option.

A. As discussed in more detail by Dr. Fisher, the Company appears to have credited 100% of the margin from projected off-system sales against the projected gross revenue requirements of each resource option when calculating net revenue requirements to be recovered from retail customers. We support this treatment, but note that it is not consistent with the Company's current System Sales Clause, under which KPCo shareholders retain 40% of margin from off-system sales.

If the Company's projection of revenue requirements reflected a continuation of the current System Sales Clause, and credited only 60% of the margin from off-system sales against gross revenue requirements, the difference in CPW between Option 1 and the other three Options is reduced substantially. Dr. Fisher quantifies that impact, which is illustrated in the bar chart from Exhibit ___(JRH-7) revised.

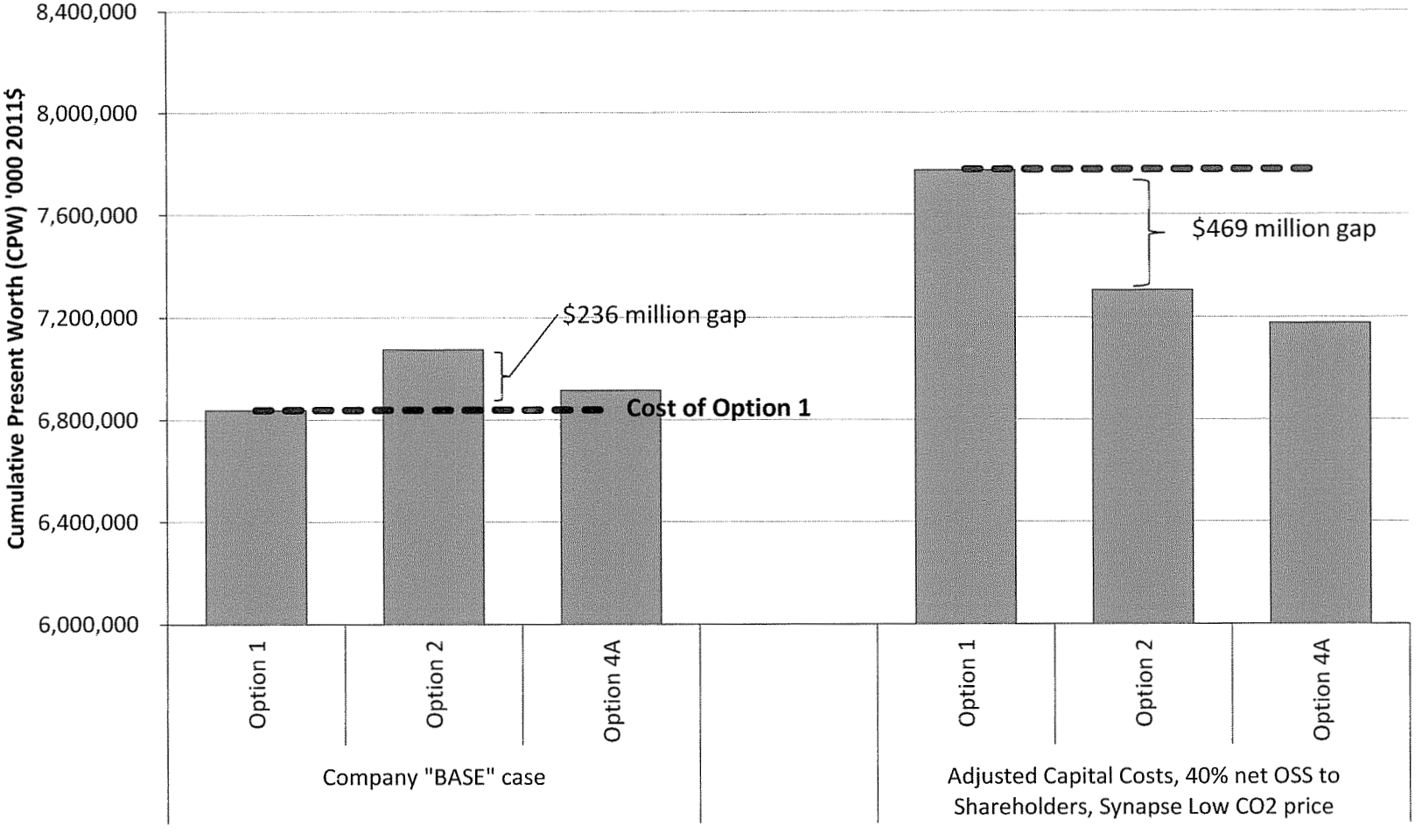


Q. Has your team identified problems with any of the Company's cost assumptions for the four resource options it did evaluate?

A. Yes. The reviews conducted by Ms. Wilson and Dr. Fisher indicate that the Company's estimate of capital costs for Option 1 is too low. Dr. Fisher's review indicates that estimates of capital costs for Options 2, 3 and 4 are too high. His analyses also indicate that the Company's estimate of annual fixed operation and maintenance costs (FOM) of Option 1 from 2031 onward are too low.

Q. Have you prepared projections of revised revenue requirements based upon corrected assumptions for the four resource options?

A. Yes. The bar chart below, from Exhibit ___(JRH-8), illustrates the impact on revenue requirements of correcting the capital cost assumptions identified by Dr. Fisher and Ms. Wilson. Those revised projections indicate that Option 1 would have the highest revenue requirement, and as such is neither reasonable nor cost-effective.



Cumulative present worth (CPW) of Options 1 (retrofit), 2 (NGCC replace in 2016), and 4A (market purchase to 2020) under Company Base assumptions (left) and Synapse revised assumptions and corrections (right). See text for details.

Exhibit____JJF-S2
REVISED

Exhibit____JIF-S3A - REVISED

Cumulative Present Worth of Revenue Requirements (M 2011$)
Re-Analysis with Adjusted Off System Sales

	Option #1 Retrofit Big Sandy 2 w/ FGD	Option #2 NGCC Replacement	Option #3 BS1 Repower	Option #4A Market to 2020; NGCC in 2020	Option #4B Market to 2025; NGCC in 2025
Company Assumptions					
CPW	6,839	7,075	7,091	6,918	6,791
Net benefit of retrofit (CPW)		236	252	78	(48)
Adjusted Off System Sales					
CPW	6,943	7,154	7,171	6,993	6,862
Net benefit of retrofit (CPW)		211	228	49	(81)

Exhibit____JIF-3B

Cumulative Present Worth of Revenue Requirements (M 2011$)
Re-Analysis with Corrected Capital Costs

	Option #1 Retrofit Big Sandy 2 w/ FGD	Option #2 NGCC Replacement	Option #3 BS1 Repower	Option #4A Market to 2020; NGCC in 2020	Option #4B Market to 2025; NGCC in 2025
Company Assumptions					
CPW	6,839	7,075	7,091	6,918	6,791
Net benefit of retrofit (CPW)		236	252	78	(48)
Corrected Capital Costs					
CPW	6,921	6,679	6,790	6,632	6,610
Net benefit of retrofit (CPW)		(242)	(131)	(289)	(311)

Exhibit____JIF-S3C - REVISED

Cumulative Present Worth of Revenue Requirements (M 2011$)
Re-Analysis with Adjusted Off System Sales & Corrected Capital Costs

	Option #1 Retrofit Big Sandy 2 w/ FGD	Option #2 NGCC Replacement	Option #3 BS1 Repower	Option #4A Market to 2020; NGCC in 2020	Option #4B Market to 2025; NGCC in 2025
Company Assumptions					
CPW	6,839	7,075	7,091	6,918	6,791
Net benefit of retrofit (CPW)		236	252	78	(48)
Corrected Capital Costs & Off System Sales					
CPW	7,025	6,759	6,870	6,708	6,681
Net benefit of retrofit (CPW)		(267)	(155)	(318)	(344)

Cumulative Present Worth (CPW) under Company CO_2 assumptions and Alternate Assumptions.

Exhibit____JIF-3D

Cumulative Present Worth of Revenue Requirements (M 2011$) Re-Analysis with Synapse Low CO2			
	Option #1 Retrofit Big Sandy 2 w/ FGD	**Option #2** NGCC Replacement	**Option #4A** Market to 2020; NGCC in 2020
Company Assumptions			
CPW	6,839	7,075	6,918
Net benefit of retrofit (CPW)		236	78
Synapse Low CO2 Price			
CPW	7,643	7,665	7,412
Net benefit of retrofit (CPW)		22	(230)

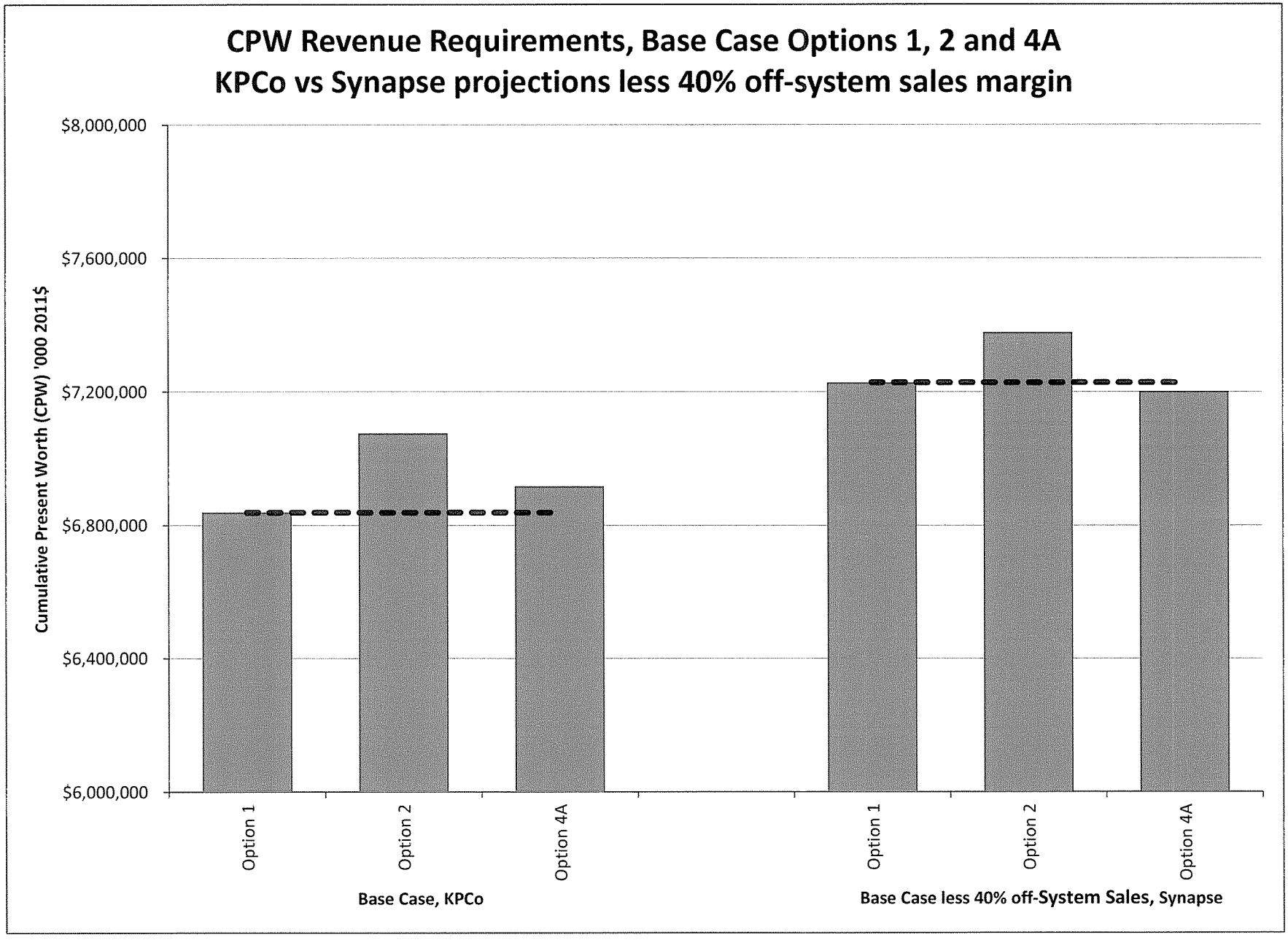
Exhibit____JIF-3E

Cumulative Present Worth of Revenue Requirements (M 2011$) Re-Analysis with Synapse Low CO2 & Corrected Capital Costs			
	Option #1 Retrofit Big Sandy 2 w/ FGD	**Option #2** NGCC Replacement	**Option #4A** Market to 2020; NGCC in 2020
Company Assumptions			
CPW	6,839	7,075	6,918
Net benefit of retrofit (CPW)		236	78
Synapse Low CO2 Price & Corrected Cap Costs			
CPW	7,725	7,269	7,127
Net benefit of retrofit (CPW)		(456)	(597)

Exhibit____JIF-S3F - REVISED

Cumulative Present Worth of Revenue Requirements (M 2011$) Re-Analysis with Synapse Low CO2, Corrected Cap Costs & Adj Off-System Sales			
	Option #1 Retrofit Big Sandy 2 w/ FGD	**Option #2** NGCC Replacement	**Option #4A** Market to 2020; NGCC in 2020
Company Assumptions			
CPW	6,839	7,075	6,918
Net benefit of retrofit (CPW)		236	78
Synapse Low CO2 Price, Corrected Capital Costs & Off System Sales			
CPW	7,776	7,306	7,177
Net benefit of retrofit (CPW)		(469)	(598)

Cumulative Present Worth (CPW) under Company CO_2 assumptions and Alternate Assumptions.



Source : *Workbook for Exhibits JRH-6 to JRH-9.xls*