BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of an Investigation of the Cost to Missouri's Electric Utilities Resulting from Compliance with Federal Environmental Regulations	)))	File No. EW-2012-0065

COMMENTS OF SIERRA CLUB

Sierra Club respectfully submits these comments in response to the Commission's September 24, 2013 Order Directing Staff to Update Its Report Regarding the Cost of Compliance with New Federal Environmental Regulations. Sierra Club offers these comments as a supplement and update to comments that Sierra Club submitted to this docket on December 29, 2011 (Dkt. No. 8) and March 26, 2012 (Dkt. No. 11), which Sierra Club incorporates by reference as if fully set forth herein.

In its September 23, 2013 Order, the Commission indicated that it would like Staff to analyze developments in environmental regulations since its May 2012 report in this docket, particularly with respect to Sections 111(b) and 111(d) of the Clean Air Act. Utilities' reliance on coal generation exposes ratepayers to extraordinary risk. The United States continues to strengthen existing environmental regulations as it makes thoughtful progress on greenhouse gas regulation, and there is no doubt that coal plants will bear a disproportionate impact of forthcoming environmental requirements. As Sierra Club pointed out in its previous comments in this docket, it is critical that Missouri utilities and the Commission consider the full suite of forthcoming environmental regulations together, rather than piecemeal, as part of ensuring that Missouri utilities maintain a reliable resource portfolio in conjunction with just and reasonable rates. We believe the Commission understands this, and we applaud the Commission for its interest in recent regulatory developments and their potential impact on Missouri ratepayers.

I. Updated Estimates of Capital Expenditures for Environmental Upgrades

In its May 2, 2012 report, Commission Staff cited Sierra Club's tables estimating capital expenditures for environmental upgrades for Missouri's many aging coal-fired power plants. Synapse Energy Economics has recently updated its database estimating these costs, which is derived from publicly available information, and we provide the information below for the Commission's consideration. Notably, costs for controlling coal combustion residuals and compliance with the forthcoming effluent limitation guidelines are now included, though the costs of future greenhouse gas emissions regulations are not. While the precise details of future greenhouse gas rules are still uncertain, it is clear that utilities will need to meet new regulatory requirements (and their associated costs) in the near future. Synapse recently released the 2013 edition of its *Carbon Dioxide Price Forecast* report, attached hereto as Exhibit A, which is designed to provide a reasonable range of price estimates for use in utility resource planning analyses.

With respect to the remaining regulations, we estimate total capital expenditures of approximately $12.6B to install the full suite of environmental pollution controls on Missouri coal units. Table 1 depicts these projected capital expenditures for Missouri coal units, and Table 2 compares the forward-going costs of compliance. For a list of sources and a description of the methodologies and assumptions undergirding this report, see *Forecasting Coal Unit Competitiveness: Coal Retirement Assessment Using Synapse's Coal Asset Valuation Tool (CAVT)*, Oct. 11, 2013, attached hereto as Exhibit B.

Table 1: Total Estimated Capital Expenditures for Environmental Upgrades (Million 2012 $)

Plant	Unit	FGD	SCR	Baghouse	ACI	Cooling	CCR	Effluent	Total
Asbury	1	$140.52	$0.00	$0.00	$3.49	$0.00	$86.21	$26.86	$257.08
Asbury	2	$24.63	$0.00	$0.00	$2.42	$0.00	$48.89	$0.00	$75.95
Blue Valley	2	$34.38	$12.80	$10.44	$2.74	$0.00	$54.97	$0.00	$115.33

Blue Valley	3	$78.31	$29.67	$22.63	$3.16	$0.00	$70.45	$18.93	$223.14
Blue Valley	ST1	$34.38	$12.80	$10.44	$2.74	$0.00	$54.97	$0.00	$115.33
Columbia	5	$24.18	$8.42	$0.00	$2.48	$0.00	$61.26	$0.00	$96.34
Columbia	7	$29.71	$10.18	$0.00	$2.59	$0.00	$66.58	$0.00	$109.06
Hawthorn	5	$0.00	$0.00	$0.00	$4.03	$50.44	$90.45	$28.67	$173.59
Iatan	1	$0.00	$0.00	$0.00	$0.00	$82.95	$67.33	$12.69	$162.97
Iatan	2	$0.00	$0.00	$0.00	$0.00	$0.00	$73.03	$15.98	$89.01
James River Power Station	1	$27.39	$9.37	$6.52	$2.51	$0.00	$49.17	$0.00	$94.96
James River Power Station	2	$27.39	$9.37	$6.52	$2.51	$0.00	$49.17	$0.00	$94.96
James River Power Station	3	$45.51	$0.00	$11.43	$2.78	$0.00	$53.04	$0.00	$112.76
James River Power Station	4	$56.83	$0.00	$14.69	$2.92	$0.00	$55.85	$7.59	$137.88
James River Power Station	5	$83.86	$0.00	$23.11	$3.17	$0.00	$63.77	$13.29	$187.20
John Twitty Energy Center	ST1	$123.89	$0.00	$37.83	$3.40	$0.00	$62.90	$11.26	$239.28
John Twitty Energy Center	ST2	$0.00	$0.00	$0.00	$0.00	$0.00	$72.52	$17.41	$89.93
Labadie	1	$266.36	$105.85	$91.64	$4.00	$65.49	$57.45	$6.88	$597.68
Labadie	2	$266.65	$105.98	$91.64	$4.00	$56.23	$57.45	$6.88	$588.83
Labadie	3	$282.67	$113.52	$97.71	$4.05	$60.70	$58.45	$7.45	$624.55
Labadie	4	$282.78	$113.43	$97.71	$4.05	$60.83	$58.45	$7.45	$624.70
Lake Road	4	$94.67	$40.81	$35.94	$3.37	$0.41	$89.81	$28.67	$293.66
Marshall	4	$11.63	$4.58	$3.26	$2.16	$0.00	$55.17	$0.00	$76.80
Marshall	5	$23.89	$8.62	$0.00	$2.51	$0.00	$72.45	$0.00	$107.47
Meramec	1	$99.17	$35.20	$28.18	$3.29	$0.68	$52.26	$4.27	$223.04
Meramec	2	$98.94	$35.15	$28.18	$3.29	$0.68	$52.26	$4.27	$222.76
Meramec	3	$168.73	$65.41	$51.44	$3.68	$1.18	$59.92	$8.98	$359.34
Meramec	4	$197.46	$78.64	$61.32	$3.80	$28.23	$63.46	$11.15	$444.07
Missouri City	1	$33.33	$12.74	$0.00	$2.74	$1.69	$67.55	$0.00	$118.05
Missouri City	2	$33.34	$12.74	$0.00	$2.74	$1.29	$67.55	$0.00	$117.67
Montrose	1	$124.79	$44.86	$39.47	$3.42	$0.27	$60.32	$9.56	$282.68
Montrose	2	$125.07	$44.58	$39.47	$3.42	$0.26	$60.32	$9.56	$282.68
Montrose	3	$125.05	$44.62	$39.47	$3.42	$0.28	$60.32	$9.56	$282.72
New Madrid	1	$282.08	$0.00	$87.51	$4.06	$81.46	$69.49	$14.34	$538.93
New Madrid	2	$279.39	$0.00	$87.51	$4.06	$74.09	$69.49	$14.34	$528.87
Rush Island	1	$279.01	$110.90	$95.94	$4.04	$83.58	$69.36	$14.34	$657.17
Rush Island	2	$279.03	$110.95	$95.94	$4.04	$78.36	$69.36	$14.34	$652.01
Sibley	1	$50.02	$16.56	$12.36	$2.82	$0.22	$50.01	$3.01	$135.01
Sibley	2	$46.72	$15.41	$11.44	$2.78	$0.21	$49.59	$2.74	$128.88
Sibley	3	$213.49	$0.00	$64.00	$3.83	$39.15	$81.22	$22.93	$424.61
Sikeston Power Station	1	$155.99	$0.00	$43.78	$3.57	$0.00	$89.81	$28.67	$321.82
Sioux	1	$0.00	$0.00	$89.13	$3.98	$67.47	$69.04	$14.34	$243.96
Sioux	2	$0.00	$0.00	$89.13	$3.98	$63.48	$69.04	$14.34	$239.97
Thomas Hill	1	$109.56	$0.00	$30.37	$3.34	$1.16	$52.25	$4.17	$200.84

Thomas Hill	2	$152.03	$0.00	$44.08	$3.58	$36.89	$56.31	$6.60	$299.49
Thomas Hill	3	$311.80	$0.00	$98.94	$4.15	$90.58	$75.19	$17.91	$598.57

Table 2: Estimated Impact of Environmental Upgrades on Forward-Going Cost Compared to Alternatives (2012 $/MWh)

Plant	Unit	Current Non-Env. Cost	Forward-Going Cost	Capacity Factor (2010-2012)	Market Price	All-In Market Price
Asbury	1	$39.04	$105.29	62%	$58.42	$69.50
Asbury	2	$56.63	$303.76	34%	$62.90	$86.90
Blue Valley	2	$109.78	$704.32	15%	$74.58	$132.19
Blue Valley	3	$156.72	$1,173.35	7%	$99.11	$227.35
Blue Valley	ST1	$98.40	$561.85	20%	$69.51	$112.53
Columbia	5	$139.93	$1,359.51	9%	$91.02	$195.97
Columbia	7	$97.02	$678.99	16%	$74.06	$130.18
Hawthorn	5	$30.14	$63.08	73%	$57.68	$66.64
Iatan	1	$28.28	$55.67	73%	$57.65	$66.52
Iatan	2	$28.89	$55.20	56%	$59.00	$71.75
James River Power Station	1	$56.46	$287.34	38%	$61.67	$82.13
James River Power Station	2	$60.61	$334.91	32%	$63.49	$89.18
James River Power Station	3	$56.69	$197.65	41%	$61.23	$80.39
James River Power Station	4	$52.81	$168.96	49%	$59.83	$74.96
James River Power Station	5	$48.17	$140.41	51%	$59.54	$73.83
John Twitty Energy Center	ST1	$39.60	$100.48	61%	$58.52	$69.89
John Twitty Energy Center	ST2	$45.06	$88.09	35%	$62.58	$85.63
Labadie	1	$28.57	$72.37	92%	$56.73	$62.96
Labadie	2	$29.27	$75.24	82%	$57.19	$64.74
Labadie	3	$29.42	$75.48	80%	$57.29	$65.13
Labadie	4	$29.43	$75.50	80%	$57.30	$65.15
Lake Road	4	$55.92	$230.01	54%	$59.25	$72.72
Marshall	4	$393.41	$7,953.14	3%	$160.71	$466.33
Marshall	5	$126.78	$1,209.21	11%	$83.73	$167.68
Meramec	1	$36.91	$114.18	59%	$58.75	$70.79
Meramec	2	$36.85	$113.73	59%	$58.72	$70.65
Meramec	3	$36.73	$101.86	60%	$58.64	$70.36
Meramec	4	$35.37	$97.37	64%	$58.31	$69.07
Missouri City	1	$134.22	$1,229.14	10%	$87.28	$181.47
Missouri City	2	$154.62	$1,568.20	7%	$97.71	$221.94
Montrose	1	$35.86	$116.16	51%	$59.64	$74.25
Montrose	2	$36.27	$118.50	49%	$59.90	$75.24

Montrose	3	$35.22	$112.18	54%	$59.25	$72.72
New Madrid	1	$28.11	$72.48	70%	$57.87	$67.35
New Madrid	2	$28.84	$75.42	62%	$58.46	$69.65
Rush Island	1	$30.48	$79.14	74%	$57.61	$66.37
Rush Island	2	$30.67	$79.86	72%	$57.74	$66.85
Sibley	1	$39.70	$158.84	48%	$60.00	$75.61
Sibley	2	$39.37	$160.76	49%	$59.83	$74.96
Sibley	3	$34.88	$93.77	55%	$59.14	$72.30
Sikeston Power Station	1	$26.17	$83.76	75%	$57.54	$66.07
Sioux	1	$37.26	$75.61	54%	$59.23	$72.64
Sioux	2	$36.95	$74.76	56%	$59.06	$71.98
Thomas Hill	1	$30.68	$81.31	81%	$57.25	$64.96
Thomas Hill	2	$31.20	$80.42	77%	$57.44	$65.71
Thomas Hill	3	$30.22	$75.03	70%	$57.89	$67.43

Figures 1 and 2 below indicate the forward-going cost on $/MWH per capacity factor basis of each non-cogenerating coal-fired boiler in the United States. The “selected units” represent Missouri boilers, which are denoted in red and provide for an easy comparison against the rest of the United States. Empty red markers represent the existing operating and maintenance (O&M) costs of Missouri boilers while filled red markers represent the O&M costs of Missouri boilers after the installation of controls to address the full suite of forthcoming environmental regulations. Figures 1 and 2 reflect the net present value of coal units assuming environmental retrofits, compared to typical national market electricity prices, as described in depth in Exhibit B.

Figure 1

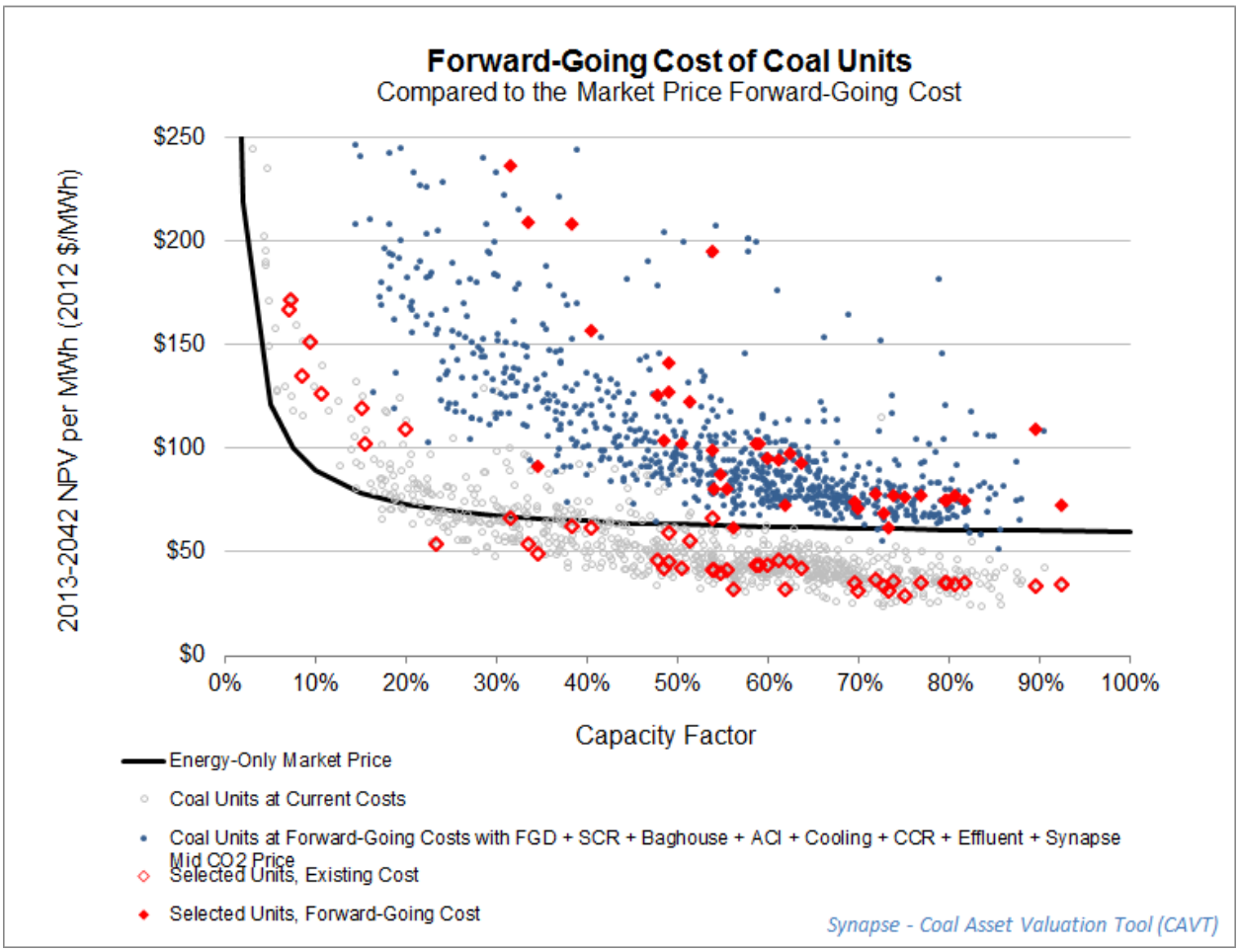
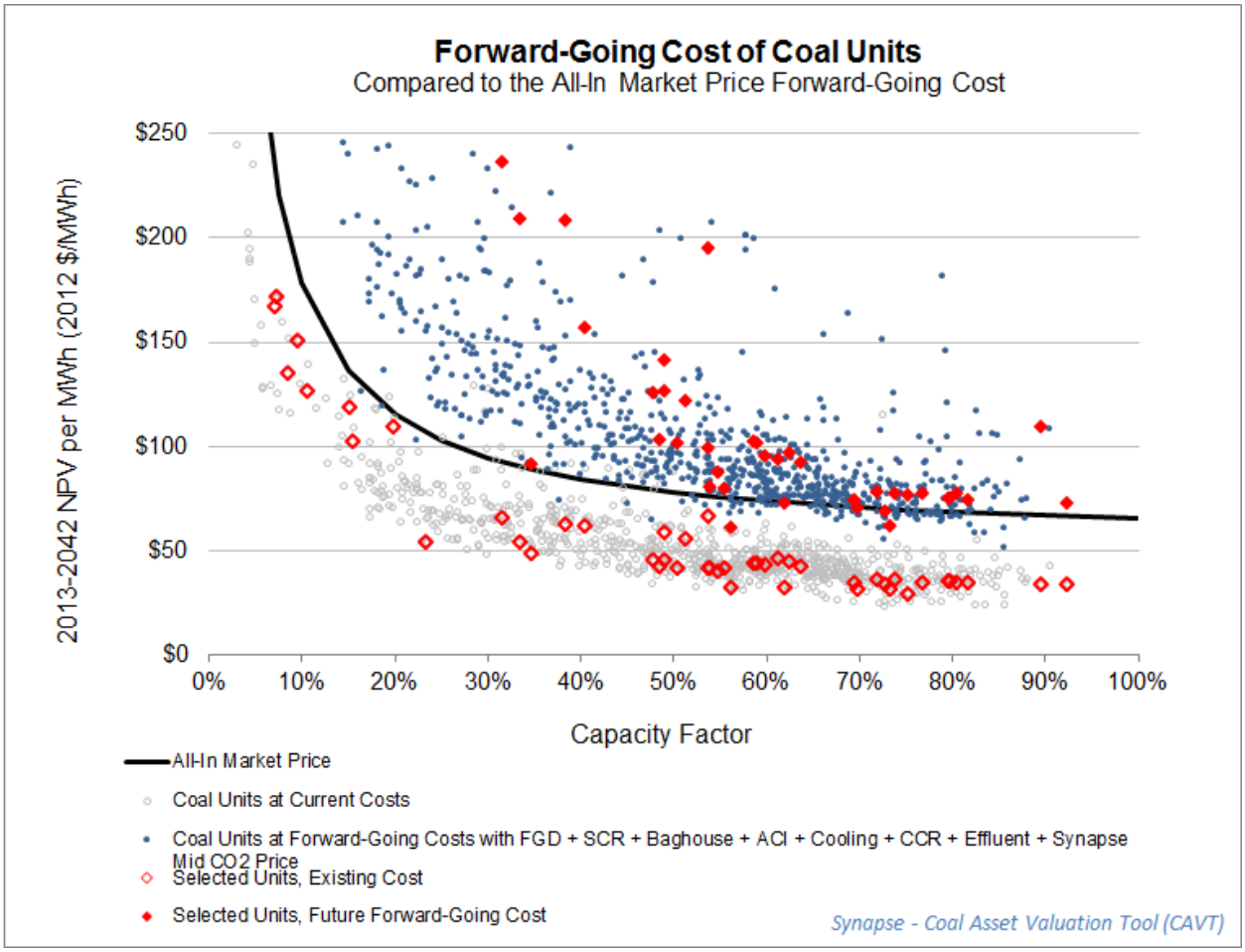

Forward-Going Cost of Coal Units
Compared to the Market Price Forward-Going Cost
2013-2042 NPV per MWh (2012 $/MWh)
$250
$200
$150
$100
$50
$0
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Capacity Factor
Energy-Only Market Price
Coal Units at Current Costs
Coal Units at Forward-Going Costs with FGD + SCR + Baghouse + ACI + Cooling + CCR + Effluent + Synapse Mid CO2 Price
Selected Units, Existing Cost
Selected Units, Forward-Going Cost
Synapse - Coal Asset Valuation Tool (CAVT)

Figure 2



As the cost of generating electricity from coal continues to increase, the cost of alternative resources continues to decline. For example, a number of recent reports from the U.S. Department of Energy's Lawrence Berkeley National Laboratory document significantly lower prices for wind power purchase agreements—as low as $31 per MWh.[1] Both capital and O&M costs for wind projects continue to decline year-on-year.[2] Moreover, because wind does not

[1] *See, e.g.*, Ryan Wiser and Mark Bolinger, "2012 Wind Technologies Market Report." August 2013. Page 48. Available at: www2.eere.energy.gov/wind/pdfs/2012_wind_technologies_market_report.pdf. Ryan Wiser and Mark Bolinger, "2011 Wind Technologies Market Report." August 2012, page 53. Available at: www2.eere.energy.gov/wind/pdfs/2011_wind_technologies_market_report.pdf.
[2] *See id.*

require the purchasing of fuel, incorporating wind in a generating portfolio reduces risk by limiting the ratepayers' exposure to swings in fuel prices.

The cost of demand-side resources also continues to decline. Sierra Club's 2011 comments discussed energy efficiency and demand response as low-cost resources that provide long-term, reliable resource adequacy benefits, and we echo those comments today. The Missouri Energy Efficiency Investment Act of 2009 ("MEEIA") created a process through which the Commission provides incentives for utilities to implement energy efficiency and demand side management programs, which, in turn, provide benefits to ratepayers, utilities, local businesses, and the environment. In 2012, both Ameren and KCPL-GMO took advantage of MEEIA, implementing measures that resulted in the largest energy efficiency programs roll-out in Missouri's history. This was indeed groundbreaking and the utilities deserve accolades for their efforts. Moreover, KCPL and Empire are on the path to implementing their own MEEIA programs in the near future. Despite these historic gains, however, Missouri's enormous energy efficiency remains largely untapped. The American Council for an Energy-Efficient Economy (ACEEE) recently released its 2013 State Energy Efficiency Scorecard, ranking Missouri 43rd in the nation.[3] We urge the Commission to push Missouri utilities to move beyond their initial energy efficiency forays, forging a path forward where utilities can take advantage of economies of scale as they expand program offerings to ratepayers.

As set forth below and as Sierra Club described in its previous comments in this docket, in light of these ongoing changes in environmental regulations facing coal-fired generation and its economic competitiveness with alternative resources, it is critical that the Commission require utilities to engage in comprehensive, forward-looking planning to protect Missouri ratepayers from the risk that large investments in retrofitting coal units will turn out to be imprudent and

[3] *See* http://aceee.org/state-policy/scorecard.

leave the Commission with the difficult choice of whether to pass those costs on to ratepayers or force utility shareholders to bear them after they have already been incurred.

II. Comprehensive, Forward-Looking Planning is Needed to Protect Ratepayers from Risky, Imprudent Coal Unit Retrofit Investments.

Coal unit retirements are an increasingly common occurrence. As of November 7, 2013, at least 434 coal units totaling over 60,665 MW of capacity had been announced for retirement by 2020.[4] Utilities' decisions to retire existing coal-fired generating capacity are being made based on economics. A combination of factors is causing the economic value of continued operation to be negative. These factors include the investments required to comply with environmental regulations, the risks of further regulations, aging and degradation of plant equipment, declining market prices for natural gas and wholesale electricity, and an increasingly broad and attractive range of alternative resources including renewable energy and energy efficiency. A utility should choose to retire any unit when it is prudent to do so—that is, when a careful and thorough analysis determines that the net present value of revenue requirements associated with keeping the unit operating exceeds the net present value of revenue requirements associated with retiring the unit.

As the presentations made at the October 28 workshop meeting indicate, Missouri utilities have made and continue to make decisions about whether to spend enormous amounts of capital to extend the lives of their aging coal-fired units. These utility decisions will potentially involve hundreds of millions, if not billions, of dollars of investment of Missouri ratepayer funds instead of alternative resources. As Sierra Club pointed out in its previous comments in this docket:

[4] *See* http://content.sierraclub.org/coal/victories.

The costs to comply with an individual regulation or requirement should not be considered in isolation. Neither a utility nor the Commission should be content with a piecemeal approach to considering the cost-effectiveness of compliance options; instead a utility should consider all reasonable forward-going risks, including regulatory risks, for all plants and all plans, and the Commission should ensure that it has sufficient detailed information to reach a decision in these complex matters. It is important to consider the full scope of upcoming regulations to develop a long-term resource plan that makes sense from a customer impact perspective. Considering retrofit investments one by one, as final regulations are issued, will result in a subpar decision-making process where ratepayers might fund retrofits that appear cost-effective when considered individually, but that combined are more expensive than other available options and could render some existing generating units uneconomic.

* * *

The potential impact of the combination of regulations highlights the need for comprehensive and forward-looking planning. To support good decision-making, it is essential to understand the full forward-going costs that utilities will face, and that they will seek to pass along to ratepayers. Sierra Club urges the Commission to ensure that it receives the information necessary to make these determinations and that the appropriate regulatory proceedings are available to permit sound decision-making in the interests of ratepayers and consistent with state and federal policy objectives. Strong planning mechanisms and regulatory proceedings will

mitigate potential impacts and enable a smooth transition to a 21st century resource mix.

(Sierra Club December 27, 2011 Comments at 3-4.)

The Commission's current statutory authority and rules are not well suited to planning comprehensively for these major capital expenses at existing electric generating facilities. Under Missouri law, utilities are not permitted to request rate recovery for their investments in environmental controls until after those retrofits are fully operational and in service. Section 393.135 RSMo. Nevertheless, utilities have an ongoing obligation to conduct prudent planning of any retrofit investments not only before their construction but even after construction begins and expenditures are made.[5]

In evaluating the prudence of these utility retrofit investments, the Commission is typically limited to two types of proceedings: (1) general rate cases in which utilities seek recovery of their past expenditures on coal unit retrofits and, (2) integrated resource planning ("IRP") proceedings in which utilities are required to present forward-looking resource plans. Although each of these types of proceedings has an important role to play in ensuring that utility decisions concerning whether to retrofit or retire their coal units are made prudently based on the best available information, both also have their own limitations that make it difficult to ensure that the Commission and stakeholders have a meaningful opportunity to review the prudence of utility retrofit investments.

[5] *State ex rel. Assoc. Natural Gas Co. v. Public Serv. Comm'n*, 954 S.W.2d 520, 528 (Mo. App. W.D. 1997) ("A determination as to whether a particular decision was prudent involves consideration of the facts and circumstances in hand at the time the decisions were made."); *In the Matter of Missouri-American Water Company's Tariff Sheets*, Report and Order, Case No. WR-2000-281 (Aug. 31, 2000) ("Prudence is measured by the standard of reasonable care requiring due diligence, based on the circumstances that existed at the time the challenged item occurred, including what the utility's management knew or should have known.") (citing *State ex rel. City of St. Joseph v. Public Serv. Comm'n*, 30 S.W.2d 8, 14 (Mo. banc 1930)).

Prudence review in a rate case occurs too late to prevent a utility from making a retrofit investment in an uneconomic coal unit. By the time the utility is seeking recovery of the investment in its rates, the money has already spent, leaving the Commission in the difficult position of deciding whether ratepayers or company shareholders must bear the (sunk) costs of an imprudent investment.

The Missouri IRP process, by contrast, is forward-looking but involves less rigorous review of the utility's planning decisions by the Commission than a rate case. The Commission's IRP rules reflect this, providing that any finding by the Commission that a utility has submitted an IRP that is consistent with the Commission's rules "shall not be construed to mean or constitute a finding as to the prudence, pre-approval, or prior commission authorization of any specific project or group of projects." 4 CSR 240-22.080(17). And while the utility is required to use "minimization of the present worth of long-run utility costs as the primary selection criterion in choosing [its] preferred resource plan," the utility is allowed to select a plan that is not the least-cost to ratepayers, as long as it "explicitly identif[ies] and, where possible, quantitatively analyze[s] any other considerations" that it considers legitimate tradeoffs that favor not selecting the least-cost plan. In addition, a utility is only required to file a full IRP analysis with the Commission once every three years, with annual updates to its analysis in the intervening years that do not have to fully re-evaluate the economic underpinnings of the company's preferred resource plan.

Given the significant changes in environmental regulations and energy markets in recent years, and the sheer magnitude of large and risky investments of ratepayer money that would be needed to bring coal-fired units into compliance with new regulations, the Commission must take additional steps now to ensure that Missouri utilities are planning prudently for this new reality

they are facing. Specifically, the Commission should make clear, under its general supervisory authority over Missouri electric plants and to ensure that Missouri utilities provide electric service that is "safe and adequate and in all respects just and reasonable," that any additional investments by Missouri utilities in coal unit retrofits will not be recoverable from Missouri customers unless the prudence of making those investments is justified in economic terms in a proper, transparent planning analysis that is subject to ongoing participation and examination by all interested parties. Sections 393.130.1, 393.140.1 RSMo. Although the Commission does not have statutory authority to pre-approve retrofit investments, the Commission has ample authority to take actions now, prior to any future rate proceedings where the prudence of any such investments will ultimately be decided, to prevent imprudent decisions from being made.

First, the Commission should use the IRP process to ensure that utilities are fully and transparently evaluating the continued need for their coal units in light of the availability of cleaner, lower-cost alternatives. As Sierra Club has pointed out in recent comments in utility IRP dockets, the Commission should require that utilities "collect generic cost and performance information sufficient to fairly analyze and compare" alternative resource options to the utility's existing resources. 4 CSR 240-22.040(1). We have seen all-too-often in recent utility IRP filings that companies do not adequately support their assumptions about the cost of alternative resources, such as the cost of adding wind resources to their portfolios. Utility cost assumptions for alternative resources such as wind are often both inconsistent with one another and higher than the available generic cost information for those same resources, and yet Missouri utilities do not typically explain in their IRP the basis for these higher cost assumptions.

In addition, the Commission should require that utilities fully describe and document in their IRP filings the "probable environmental costs" of continuing to operate their coal units, in

light of not only current but also future regulations. 4 CSR 240-22.040(2)(B). We have also seen all-too-often in recent utility IRP filings that utilities under-estimate the future costs of environmental compliance facing their coal units and do not fully account for all of the known costs and risks facing their coal units (including the likely costs of future regulation of greenhouse gas emissions) in their IRP modeling.

Another issue that Sierra Club has pointed out with recent utility IRP filings that has yet to be addressed is the role that assumptions about off-system sales of electricity from Missouri coal plants are playing in utility's future revenue projections. Missouri utilities' ability to generate additional revenue through off-system sales from their aging coal units has declined markedly in recent years as the plants have become less competitive on the wholesale market. This decline in off-system sales has been a major factor in recent rate increases sought by Ameren and Kansas City Power & Light, but those utilities continue to present the Commission with future projections that their coal plants will return to profitability after hundreds of millions, if not billions, of dollars of Missouri ratepayer money is spent to retrofit the plants to comply with environmental regulations. If the plants are not able to generate this off-system sales revenue in future years, however, the utilities' decision to retrofit them is likely not prudent. This amounts to a significant gamble of Missouri ratepayer money on the accuracy of the utilities' projections concerning the future of electricity markets and the future competitiveness of their coal units on those markets compared to alternative resources such as energy efficiency, wind, and solar. At a minimum, this issue on the future competitiveness of coal units versus alternative resources must be carefully explained and evaluated in an open and transparent way through the IRP process, not simply baked into complex modeling analyses whose assumptions are never fully unearthed and examined.

While the above is not an exhaustive list of deficiencies we observed with utility IRP filings, each of the above issues is an example of an area in which the Commission has the authority to require utilities to engage in better resource planning that would help prevent imprudent coal unit retrofit investments from being made. As these issues are raised by intervenors in IRP dockets, the Commission should hold hearings where necessary to establish the extent of any deficiencies. Where deficiencies in the utility's resource planning process have been established, the Commission must require utilities to correct any deficiencies that are identified and hold the utilities accountable for doing so in future filings.

A second set of actions that the Commission can and should take now to prevent imprudent coal unit retrofit investments from being made is to open investigation dockets, such as the recently opened docket to facilitate discovery concerning Kansas City Power & Light's proposed investment in retrofitting its LaCygne Generating Station (Case No. EO-2014-0042), which would facilitate discovery concerning the prudence of proposed retrofit investments during the period that expenditures are being made. Such dockets allow the Commission to ensure that utilities are continuing to evaluate the prudence of retrofit investment decisions during their construction period, based on new and changing information about economic conditions, and also allow the Commission to ensure that the utility maintains the information needed for the Commission and stakeholders to make an appropriately informed evaluation of the prudence of the investment in any future case in which the company requests inclusion of the investment in its rates. Through investigation dockets, the Commission can define the types of information that it will require from utilities to document their project management and ongoing planning decisions with regard to the investments. Participation of interested parties such as

Sierra Club in such investigation dockets is also critical to assist the Commission in this process by providing valuable additional perspectives and expertise.

III. Conclusion

Sierra Club respectfully submits the above comments for the Commission's consideration. Thank you for the opportunity to comment.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct PDF version of the foregoing was filed on EFIS and sent by email on this 8th day of November, 2013, to all counsel of record.

/s/ Thomas Cmar
Thomas Cmar