SIERRA
CLUB
FOUNDED 1892

RECEIVED
AUG 1 2 2013
PUBLIC SERVICE
COMMISSION

August 12, 2013

Via Personal Delivery

Jeff Derouen
Case No. 2012-00578
Kentucky Public Service Commission
211 Sower Blvd.
Frankfort, KY 40601

Re: Case No. 2012-00578 Alexander Desha, Tom Vierheller, Beverly May, and the Sierra Club's Post-Hearing Brief

Dear Mr. Derouen,

Enclosed please find one original and ten (10) copies of Alexander Desha, Tom Vierheller, Beverly May, and the Sierra Club's Post-Hearing Brief, filed today via personal delivery and served on all parties via Lynn Imaging Services. Please let me know if you have any questions.

Sincerely,

Kristin A. Henry

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

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

APPLICATION OF KENTUCKY POWER COMPANY FOR (1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AUTHORIZING THE TRANSFER TO THE COMPANY OF AN UNDIVIDED FIFTY PERCENT INTEREST IN THE MITCHELL GENERATING STATION AND ASSOCIATED ASSETS; (2) APPROVAL OF THE ASSUMPTION BY KENTUCKY POWER COMPANY OF CERTAIN LIABILITIES IN CONNECTION WITH THE TRANSFER OF THE MITCHELL GENERATING STATION; (3) DECLARATORY RULINGS; (4) DEFERRAL OF COSTS INCURRED IN CONNECTION WITH THE COMPANY'S EFFORTS TO MEET FEDERAL CLEAN AIR ACT AND RELATED REQUIREMENTS; AND (5) ALL OTHER REQUIRED APPROVALS AND RELIEF

RECEIVED
AUG 12 2013
PUBLIC SERVICE
COMMISSION

Case No. 2012-00578

ALEXANDER DESHA, TOM VIERHELLER, BEVERLY MAY, AND THE SIERRA CLUB'S POST-HEARING BRIEF

This case represents the second Kentucky Public Service Commission ("Commission") proceeding regarding Kentucky Power Company's ("KPC" or "Company") future generating portfolio in light of KPC's inability to continue operating the 800MW Big Sandy Unit 2 electric generating unit without the installation of expensive pollution controls by June 2015. In the first proceeding, KPC sought approval to charge ratepayers $940 million to install such pollution controls, but wisely withdrew that application after it became clear at the hearing that such proposal was not the least cost option for ratepayers. In this proceeding, KPC has confirmed that retiring, rather than retrofitting, the aging Big Sandy Unit 2 is the best option for ratepayers. KPC is proposing to replace Big Sandy Unit 2 with the acquisition of a 50% interest in the Mitchell Generating Station. Through a proposed settlement negotiated with the Kentucky Industrial Utilities Customers ("KIUC") and Sierra Club, such transfer would be accompanied by provisions that would reduce and delay the rate impact of the Mitchell transfer, increase energy efficiency and demand response, help reduce the risk to ratepayers of greenhouse gas emissions from the Mitchell plant, and evaluate the pursuit of wind energy. The concessions agreed to by KPC in the Proposed Settlement are just, reasonable, and in the best interests of ratepayers and, therefore, Sierra Club respectfully urges the Commission to approve the settlement as proposed.

I. FACTUAL BACKGROUND

A. Big Sandy Unit 2

By far the largest single source of energy in KPC's current portfolio is Unit 2 of the Big Sandy coal-fired power plant located in Louisa, Kentucky. The 816MW Unit 2 began operations in 1969, and shares the Big Sandy site with the 281MW Unit 1 that dates from 1963. In 1999, however, the U.S. Environmental Protection Agency, eight state Attorneys Generals, and thirteen citizen environmental groups (including Sierra Club) filed a federal court enforcement action against KPC's parent company, American Electric Power ("AEP") and its eastern affiliates, alleging that those entities violated the Clean Air Act's New Source Review requirements by modifying Big Sandy Unit 2 and other coal plants without installing modern pollution controls. The parties to that enforcement action settled the alleged violations by entering a consent decree pursuant to which AEP agreed to, among other things, install a flue gas desulfurization ("FGD" or "scrubber") pollution control on Big Sandy Unit 2 if the unit were to continue operating after May 31, 2015. Big Sandy Unit 2 would also need to comply with the Mercury and Air Toxics Standard ("MATS") by April 15, 2015, and would likely face compliance requirements for other proposed or expected regulatory standards in the foreseeable future. Continued operation past the consent decree or MATS compliance dates without achieving compliance with the applicable requirements could subject KPC to significant fines, penalties, or even criminal prosecution.[1]

B. The Retrofit CPCN Proceeding

In December 2011, KPC submitted an application to the Commission seeking a Certificate of Public Convenience and Necessity ("CPCN") authorizing the installation of an FGD with an estimated capital cost of $940 million. Such proposal would have led to a rate increase of as much as 35.23%[2] in a region that is one of the poorest in the state. In testimony, witnesses for KIUC and Sierra Club both demonstrated that KPC's application was fundamentally flawed in numerous ways and that the proposed retrofit of Big Sandy Unit 2 was not the least cost option for ratepayers. After the hearing in that proceeding, KPC withdrew its application in order to "re-evaluate alternatives to meet the Company's obligations."[3]

C. The Mitchell Transfer CPCN Application

In December 2012, KPC filed the present application, seeking a CPCN authorizing the Company to obtain an undivided fifty percent interest in the Mitchell generating station located in West Virginia. The Mitchell plant is a two-unit, 1,560MW coal-fired power that is currently owned by the Ohio Power Company, which is another affiliate of AEP. Unlike Big Sandy Unit 2, the Mitchell plant is already retrofitted with FGDs, and KPC projects that no further controls

[1] KPC Resp. to Staff Post-Hearing Data Request 8.
[2] Case No. 2011-00401, Direct Test. of Lane Kollen at p. 9.
[3] Case No. 2011-00401, KPC Motion For Leave to Withdraw Application Without Prejudice (May 30, 2012).

are required for the plant to comply with the MATS requirements.[4] KPC proposes the 50% Mitchell transfer "in lieu of retrofitting the Big Sandy Unit 2 generating station . . . as the least cost and best alternative."[5]

D. Intervenor Testimony

In response to KPC's application, Sierra Club submitted the testimony of Tim Woolf from Synapse Energy Economics. In his pre-filed testimony, Mr. Woolf opined that KPC had not demonstrated that the Mitchell transfer was the "lowest-cost option for replacing Big Sandy Unit 2."[6] In support, Mr. Woolf explained that:

- KPC did not evaluate a full range of resource options for replacing Big Sandy Unit 2, including increased demand side management ("DSM") and renewable energy
- KPC relied on an out-of-date and elevated natural gas price projection by using the same projection that the Company had used in the 2011 Retrofit CPCN application
- KPC did not issue a request for proposals ("RFP") to help identify and assess resource alternatives that may be available in the market
- KPC did not establish that the net book value price that it is proposing to pay for the Mitchell transfer is lower than the market price

KIUC submitted testimony from Lane Kollen and Philip Hayet identifying similar critiques of KPC's application. KIUC's witnesses raised the additional concern that KPC is proposing to acquire the 50% interest in the Mitchell plant starting on January 1, 2014, even though the retirement of Big Sandy Unit 2 is not scheduled until June 2015, meaning that KPC would have significant excess capacity for the intervening seventeen months.[7]

[4] Direct Test. of Gregory Pauley at p. 13. Both Big Sandy Unit 2 and the Mitchell units have selective catalytic reduction systems that are used to control nitrogen oxide emissions.
[5] KPC Application at p. 2.
[6] Direct Test. of Tim Woolf at p. 3.
[7] Direct Test. of Lane Kollen at pp. 18-19.

E. The Proposed Settlement

In advance of the hearing in this proceeding, KIUC, Sierra Club, and KPC negotiated a proposed settlement agreement that seeks to at least partially address many of the concerns that KIUC and Sierra Club raised in their testimony. The proposed settlement would consent to the Mitchell transfer while setting forth a series of steps to reduce and delay the rate impact of that transfer. The settlement also includes a series of provisions, discussed more fully below, that would require a doubling of investments in energy efficiency, increase potential industrial demand response to 75MWs, establish a mechanism for helping reduce the carbon risk facing ratepayers by allowing for the early retirement of the Mitchell asset should expected carbon regulations make the plant uneconomic, and require an assessment of wind resources. The proposed settlement is memorialized in a stipulation filed with the Commission on July 2, 2013 by KPC, KIUC, and Sierra Club.

II. LEGAL STANDARD

Under Kentucky law, KPC cannot obtain a 50% interest in the Mitchell plant until it receives a certificate that "public convenience and necessity require the service or construction." KRS § 278.020(1). The Commission can grant such a certificate only if it determines that there is both a need for the facility and "an absence of wasteful duplication resulting from the construction of the new system or facility." *Kentucky Utilities Co. v. Public Service Comm'n*, 252 S.W.2d 885, 890 (Ky. 1952). This standard requires more than just a showing that there is a need for new generation, as the statutory mandate to avoid "wasteful duplication" forecloses "excessive investment in relation to productivity or efficiency, [or] an unnecessary multiplicity of physical properties." *Id.* In reviewing a CPCN application, the Commission has the authority to "issue or refuse to issue the certificate, or issue it in part and refuse it in part." KRS § 278.020(1).

Commission decision making is guided by the overall requirement that utility rates must be "fair, just, and reasonable." KRS § 278.030(1); KRS § 278.040; *Kentucky Public Service Comm'n v. Com. ex rel. Conway*, 324 S.W.3d 373, 377 (Ky. 2010). As the Commission recently explained, it has long been recognized that "'least cost' is one of the fundamental principles utilized when setting rates that are fair, just, and reasonable." *In the Matter of: Application of Kentucky Power Co.*, Case No. 2009-00545, 2010 WL 2640998 (Ky. P.S.C. 2010). The applicant bears the burden of proving that the statutory standards of public convenience and necessity, and of fair, just, and reasonable rates, have been satisfied. *See Energy Regulatory Comm'n v. Kentucky Power Co.*, 605 S.W.2d 46, 50 (Ky.App. 1980) ("Applicants before an administrative agency have the burden of proof.").

III. ARGUMENT

This proceeding presents the Commission with the question of whether it should authorize KPC to replace Unit 2 of the Big Sandy coal-fired power plant, which lacks the expensive pollution controls required by law, with a 50% interest in the largely-controlled Mitchell coal plant. A more reasonable approach would have been for KPC to evaluate a full range of supply and demand side options to develop a more diverse and less risky resource portfolio, rather than simply swapping out one coal plant for another. However, through settlement discussions, Sierra Club, KPC, and KIUC have reached an agreement that, while agreeing to the Mitchell transfer moving forward, would require KPC to double its annual investments in demand side management, minimize the carbon risk of owning a coal plant, begin exploring wind energy resources, and reduce and delay rate impacts to the Company's customers. As such, the Sierra Club urges the Commission to approve the Proposed Settlement and the certain benefits for ratepayers that it contains.

A. Retiring, Rather Than Retrofitting, Big Sandy Unit 2 is in the Best Interest of Ratepayers.

The biggest benefit to ratepayers of the Proposed Settlement is that it should ensure the timely retirement, rather than the expensive retrofitting, of Big Sandy Unit 2. That unit is exactly the kind of generating asset that is primed for retirement. Having commenced operations in 1969, the 44-year-old Big Sandy Unit 2 is at or beyond its initially expected operating life. In addition, as detailed by KPC witness John McManus, the plant faces a number of existing and pending environmental requirements that will or are likely to require capital-intensive pollution control installations and/or increased operating costs if Big Sandy Unit 2 were to continue operating. These requirements include:

- **NSR Consent Decree** – The most immediate environmental project facing Big Sandy Unit 2 is the pollution control installation required by the December 2007 consent decree that AEP and its eastern affiliates entered into with the U.S. EPA, eight state Attorneys General, and thirteen non-profit environmental organizations regarding alleged violations of the Clean Air Act's New Source Review provisions. That settlement requires, among other things, the installation of an FGD on Big Sandy Unit 2 by May 31, 2015 that the Company has projected would cost $940 million to install and additional amounts every year to operate. A modification to the consent decree has since confirmed that KPC could also achieve compliance by retiring Big Sandy Unit 2 or repowering it to natural gas. The Mitchell plant has already installed the pollution controls required by the consent decree.[8]

- **MATS** – The federal MATS standard would require Big Sandy Unit 2 to satisfy stringent limits on mercury, acid gases, and other hazardous air pollutants by April 16, 2015. KPC confirmed in its application that it would need to install additional emission controls, switch fuels, or retire Big Sandy Unit 2 in order to achieve MATS compliance.[9] KPC contends that the Mitchell plant is fully compliant with MATS and will not need additional pollution controls related to that rule.[10]
- **Cross-State Air Pollution Rule ("CSAPR")** - While CSAPR was vacated by the U.S. Court of Appeals for the D.C. Circuit, *EME Homer City Generation, L.P. v. EPA*, 696 F.3d 7 (D.C. Cir. 2012), the U.S. Supreme Court recently granted certiorari in a challenge to the D.C. Circuit's decision. Even if the D.C. Circuit's decision stands, a regulatory program similar to CSAPR is likely to return, as CSAPR was designed to implement National Ambient Air Quality Standards that are still in place and are expected to become more stringent, which is why the D.C. Circuit specifically called on U.S. EPA to "proceed expeditiously" to replace the vacated CSAPR program. *Id.* at 38 n. 35.
- **Steam Electric Effluent Limitation Guidelines ("ELGs")** – U.S. EPA is in the process of promulgating standards to require the treatment of wastewater streams from the fly ash, bottom ash, FGD, and mercury control wastewater discharges. The agency is currently accepting comments on a draft ELG proposal, 78 Fed. Reg. 34431 (June 7, 2013), with a final rule expected by May 22, 2014. Both Big Sandy Unit 2 and the

[8] Direct Test. of John McManus at pp. 4-5.
[9] Direct Test. of John McManus at p. 5.
[10] Direct Test. of John McManus at p. 5.

Mitchell plant could need additional controls if they are still operating when the ELG goes into effect.[11]

- **Clean Water Act Section 316(b)** – U.S. EPA is promulgating a rule regarding the Clean Water Act's Section 316(b) standards to reduce the impingement and entrainment of fish and other aquatic species that result from coal plant cooling water intake structures. A draft 316(b) rule has already been issued for public comment, and a final decision on the rule is expected by November 4, 2013. KPC acknowledges that both Big Sandy Unit 2, if it were still to be operating, and Mitchell may end up needing to upgrade their cooling water intake screens in order to achieve compliance with the 316(b) rule.[12]
- **Coal Combustion Residuals Rule ("CCR")** – In June 2010, U.S. EPA issued a proposed rule that would establish more stringent standards for the disposal of waste generated through the combustion of coal at electric generating units. 75 Fed. Reg. 35128 (June 21, 2010). When finalized, the CCR rule would likely require capital investments at both Big Sandy Unit 2, if it were still to be operating, and the Mitchell plant.[13]
- **Greenhouse Gas Regulations** – As addressed in Section III.D below, President Obama's recent announcement of a comprehensive plan to cut the carbon pollution that causes climate change and endangers public health makes it all the more likely that existing coal plants will face regulatory costs related to their carbon emissions in the foreseeable future.[14]

[11] Direct Test. of John McManus at p. 8.
[12] Direct Test. of John McManus at p. 8.
[13] Direct Test. of John McManus at pp. 8-9.
[14] The White House, Fact Sheet: President Obama's Climate Action Plan (June 25, 2013), *available at* http://www.whitehouse.gov/the-press-office/2013/06/25/fact-sheet-president-obama-s-climate-action-plan;

What this list of existing and likely environmental standards demonstrates is that it would make no economic sense to spend $940 million installing pollution controls on the Big Sandy Unit 2 coal plant that is more than four decades old and that will almost certainly need additional significant environmental investments if the plant operates for more than a couple more years.

Retiring Big Sandy Unit 2 is reasonable because the evidence is clear that retrofitting the unit is far from KPC's lowest cost compliance option. The FGD project would have cost ratepayers $940 million in capital costs, which would have led to as much as a 35.23% increase in rates. KPC's own economic modeling in this proceeding reports that one of the retrofit options – number 1B, which combines the retrofit with the retirement and replacement of Big Sandy Unit 1 and ten years of market purchases – had the highest cumulative present worth ("CPW") cost of any of the ten options that KPC considered.[15] Option 1A, which involved retrofitting Big Sandy Unit 2 and replacing Big Sandy Unit 1 with a 20% share of the Mitchell plant, had a higher CPW than at least three other options.[16] Similarly, KPC's filing in the retrofit CPCN proceeding reported that Option 4B – which involved retiring Big Sandy Unit 2 and replacing it with market purchases for ten years and then with a new natural gas combined cycle plant – would have a CPW that is $48 to $119 million lower than that for retrofitting Unit 2.[17] And all of these results were from before necessary corrections – such as removal of the Company's share of off-system sales revenue from the CPW calculations, use of up-to-date commodity price forecasts, consistent consideration of depreciation time periods, and evaluation of increased DSM and renewables – that would make the retiring rather than retrofitting of Big

Executive Office of the President, The President's Climate Action Plan (June 2013), *available at* http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf.

[15] Exhibit SCW-5.

[16] Id.

[17] Case No. 2011-00401, Direct Test. of Scott Weaver at Ex. SCW-4

Sandy Unit 2 even more economically favorable. Such results foreclose any finding that retrofitting Big Sandy Unit 2 could somehow be the least cost compliance option for KPC.

During the public comment period at the hearing, a few local officials urged retrofitting of Big Sandy Unit 2 in order to avoid the loss of jobs and tax base that local communities would experience when the plant is retired. These are real concerns that the Commission should not dismiss lightly, but an uneconomic retrofit is not the way to address them. Instead, KPC, the Commission, and the Commonwealth of Kentucky should take reasonable steps to mitigate the local tax base and employment impacts that will occur when Big Sandy Unit 2 is retired. The Proposed Settlement takes a small initial step towards doing so by providing $500,000 of AEP shareholder money over five years for economic development in Lawrence County and contiguous counties in Kentucky.[18] But this provision is obviously not adequate on its own to fully alleviate these localized economic impacts from the Big Sandy Unit 2 retirement and, as such, more should be done.

It is important to keep in mind, however, that the solution to such impacts is not to impose the serious and far more widespread adverse economic impact on eastern Kentucky of substantially higher electric rates that would result from retrofitting Big Sandy Unit 2. The twenty counties in eastern Kentucky served by KPC are some of the most impoverished in the Commonwealth. As reported in the retrofit CPCN docket, in 2010 thirteen of the counties[19] in the service territory had a poverty rate[20] of between 26.5% – 45.4% and six of the counties[21] had

[18] Proposed Settlement at ¶ 10.

[19] Lewis, Rowan, Elliott, Morgan, Martin, Magoffin, Floyd, Pike, Breathitt, Owsley, Perry, Leslie, and Clay Counties.

[20] According to the U.S. Census Bureau, the weighted average poverty thresholds in 2010 by size of family are:

One person	$11,139
Two people	$14,218
Three people	$17,374
Four people	$22,314
Five people	$26,439

a poverty rate of between 18.7% - 26.4%.[22] Yet these impoverished customers have already seen dramatic rate increases in the past few years. From 2003 to 2011, residential, commercial, and industrial customers have seen their rates increase by 89.7%, 87.05%, and 86.6%, respectively.[23] In the retrofit CPCN proceeding, KPC estimated that the Big Sandy Unit 2 FGD project would raise those rates by an additional 29.49%, which amounts to an increase of $39.39/month or $472.70/year for the average residential customer.[24] KIUC witness Kollen estimated the rate increase from the Big Sandy Unit 2 retrofit to actually be 35.23%,[25] which would mean an increase in the average monthly residential bill of $47.17/month or $566.04/year.[26] Given the impoverished nature of eastern Kentucky, and the magnitude of the rate increases that would have resulted from the retrofitting of Big Sandy Unit 2, it is all the more important that the Commission authorize and require KPC to pursue the lower cost option of retiring and replacing, rather than retrofitting, Big Sandy Unit 2.

B. The Proposed Settlement Reduces and Delays the Rate Impact of the Mitchell Transfer

One of the lower cost options identified by KPC is the proposed transfer of a 50% interest in the Mitchell plant as a way to replace the retiring Big Sandy Unit 2. In the present application, KPC's modeling concluded that the 50% Mitchell transfer option (#5A) would have a cumulative present worth ("CPW") that was $646 and $853 million lower than that of the two

See, U.S. Census Bureau, Income, Poverty, and Health Insurance Coverage in the United States in 2010, available at http://www.census.gov/prod/2011pubs/p60-239.pdf.

[21] Carter, Boyd, Lawrence, Johnson, Knott, Letcher Counties.

[22] Case No. 2011-00401 Hearing Ex. AG-3, Counties in AEP Service Area Percent of Persons in Poverty 2010

[23] Case No. 2011-00401, Hearing Ex. KIUC-1, Kentucky Power FERC Form 1 Data

[24] Case No. 2011-00401, Revised Ex. LPM-13 (Lila P. Munsey) provided in KPC's Resp. to Staff 1-20; Case No. 2011-00401, Hearing, Witness Wohnhas, April 30, 2012 at 10:58:00 – 11:02:48. This estimate was actually based on 29.39% increase. If the additional 0.10% is added, rates would rise by $39.52/month and $474.24/year.

[25] Case No. 2011-00401, Direct Test. of Lane Kollen at p. 9.

[26] 35.2% increase on a monthly bill of $134.04 = $47.17/month and $47.17 x 12 months = $566.04/year.

Big Sandy Unit 2 retrofit options, numbered 1A and 1B, respectively.[27] An analysis disclosed by KPC during discovery in the retrofit CPCN docket similarly concluded that the 50% Mitchell transfer option would cost less than the Big Sandy Unit 2 retrofit.[28]

Given that the 50% Mitchell transfer is a lower cost option than the Big Sandy Unit 2 retrofit, it is not surprising that the transfer would involve a lower increase in rates than the retrofit would. In addition, the rate impact of the transfer has been further reduced due to some ratemaking concessions by KPC as part of the Proposed Settlement. In particular, if the Mitchell transfer were approved without the Proposed Settlement, the resulting rate impact would be an increase of approximately 23.39%, as reflected in KPC's recent rate increase request docketed in case number 2013-00197.[29] The Proposed Settlement, however, provides that KPC will withdraw its rate increase request in 2013-00197 and not file another rate increase request to go into effect before May 31, 2015.[30]

For that first 17 month period from the January 1, 2014 transfer of Mitchell to the May 31, 2015 retirement of Big Sandy Unit 2, KPC has agreed to forego the full $137 million per year value for Mitchell in base rates and, instead, has agreed to collect only $44 million per year for that time period through an Asset Transfer Rider.[31] Starting June 1, 2015, the Mitchell costs would end in the Asset Transfer Rider and the full $137 million would go into base rates.[32] However, the resulting rate impact would be lessened because all costs for Big Sandy Unit 2 and coal-related costs for Big Sandy Unit 1 would come out of rates and instead be collected through an Asset Transfer Rider where they are levelized over 25 years, rather than being paid largely up

[27] Exhibit SCW-5.

[28] Case No. 2011-00401, KPC Resp. to Sierra Club DR 1-52a.

[29] Application of a General Adjustment of Existing Rates of Kentucky Power Company, KPSC Case No. 2013-00197, June 28, 2013 Application at p. 6.

[30] Proposed Settlement at ¶ 3.

[31] Proposed Settlement at ¶ 4; Kollen Tr. at 15:52:40 to 15:53:31.

[32] Kollen Tr. at 15:50:14 to 15:52:11.

front.[33] Finally, fuel cost savings of approximately $16.75 million stemming from the fact that Mitchell has lower fuel costs than Big Sandy Unit 2 would be credited to ratepayers.[34] As a result of these agreements, the rate impact of the 50% Mitchell transfer would be 5.33% for the period of January 1, 2014 through May 31, 2015, and an additional increase of 8.21% starting June 1, 2015 for a total increase of 13.98%.[35]

C. The Proposed Settlement Would Lead to a Doubling of KPC's Investment in Demand Side Management and an Increase in Industrial Demand Response.

Another significant benefit of the Proposed Settlement is that it would lead to a doubling of KPC's investment in DSM programs, from $3 million to $6 million per year by 2016, and an increase in industrial demand response.[36] Such investments should save ratepayers significant amounts of money by enabling KPC to develop and promote additional cost effective DSM programs that will help decrease or at least slow the growth of energy demand. As such, the increase in DSM investments set forth in the Proposed Settlement are an important part of the "least cost" approach that is a "fundamental principle[] utilized when setting rates that are fair, just, and reasonable." *In re Application of Kentucky Power Co.*, KPSC Case No. 2009-00545 (June 28, 2010).

The Commission has frequently and consistently endorsed the importance of DSM as a way to reduce costs for ratepayers. For example, in an October 2011 order, the Commission explained that it:

> Recognizes the importance of greater deployment of energy efficiency initiatives to Kentucky's electric generating utilities due to the reliance on low cost coal-fired base load generation. Even though there has been no legislative mandate to adopt its goals, Kentucky's 7-Point Strategy for Energy Independence

[33] Proposed Settlement at ¶ 3; Kollen Tr. at 16:16:31 to 16:19:03.
[34] Proposed Settlement at ¶ 2; Kollen Tr. at 16:15:10 to 16:16:21.
[35] KPC Resp. to Staff DR 5-10, Attachment 1.
[36] Proposed Settlement at ¶ 12.

> (Kentucky's Energy Plan) issued in November 2008 includes specific goals for energy efficiency as well as renewables and biofuels by 2025. The Commission also notes that Kentucky's reliance on coal-fired generation will face increasing pressure as costs are incurred to meet proposed and potential new federal environmental regulations.
>
> In several administrative cases, the Commission has noted its support for energy efficiency. In addition, in recent cases where utilities were requesting a general increase in base rates, the Commission has questioned utilities regarding their conservation and energy efficiency efforts. In those cases, the Commission has stated its belief that conservation, energy efficiency and demand-side management will become more important and cost-effective as there will likely be more constraints placed upon utilities whose main source of supply is coal-based generation. As a result, the Commission has encouraged all electric energy providers to make a greater effort to offer cost-effective demand-side management and other energy efficiency programs.

In re: Consideration of the New Federal Standards of the Energy Independence and Security Act of 2007, KPSC Case No. 2008-00408, Oct. 6, 2011 Order, at pp. 21-22 (citations omitted).

Similarly, the Commission recently recounted that:

> For over 30 years, the Commission has historically noted the importance of energy efficiency (conservation) as a ratemaking standard. "It is intended to minimize the 'wasteful' consumption of electricity and to prevent consumption of scarce resources...
>
> In recent years the Commission has emphasized the importance of energy efficiency, and has often considered it and DSM in conjunction with a requested increase in the customer charge.
>
> . . . .
>
> with the potential for huge increases in the costs of generation and transmission as a result of aging infrastructure, low natural gas prices, and stricter environmental requirements, we will strive to avoid taking actions that might disincent energy efficiency.

In the Matter of Application of Kentucky Utilities Company for an Adjustment of its Electric Rates, KPSC Case No. 2012-00221, Dec. 20, 2012 Order at pp. 7, 8, and 11 (citations omitted).

And the Commission has found that a CPCN proceeding is a proper one in which to evaluate increased DSM, holding that "the CPCN authority provided the Commission pursuant to KRS

278.020 also effectively treats cost-effective energy efficiency as a priority resource." *In re Consideration of New Federal Standards*, Order at p. 21.

Despite these clear signals from the Commission in favor of increased DSM, KPC's application "hardly consider[ed] DSM to be a resource at all."[37] Instead, KPC simply assumed the same level of DSM savings in each scenario it evaluated, thereby foreclosing an identification of the optimal level of DSM resources that the Company could pursue.[38] That failure to identify an optimal level of DSM resources is compounded by the fact that the level of DSM assumed by KPC is far below what has been or is expected to be cost effectively achievable by states and utilities throughout the country. For example, KPC expects to achieve approximately 0.5% savings of total energy sales through DSM in 2013, and for that figure to slowly increase to a cumulative level of only 1.5% of sales by 2020, after which savings are projected to flatline.[39] By contrast, AEP projects total energy savings from DSM for the eastern half of that company's operations to be approximately 1.5% in 2013 and to gradually increase to a cumulative total of 5.5% by 2023.[40] Similarly, AEP projects eastern fleet-wide cumulative capacity savings from DSM to increase from nearly 4% in 2012 to nearly 12% by 2023,[41] while KPC is estimating 0.5% capacity savings in 2013 increasing to approximately 5% savings in 2022 and staying at that level thereafter.[42] In addition to being significantly under what AEP plans to achieve with DSM, KPC's projected DSM energy savings are only approximately 10% to 30% of the level of annual energy savings that has been achieved through energy efficiency in at least twelve other states.[43]

[37] Direct Test. of Tim Woolf at p. 18.
[38] Id.
[39] Id. at p. 24.
[40] Id. at p.24.
[41] Id. at p. 23.
[42] Id.
[43] Id. at p. 25.

The Proposed Settlement would not get KPC to all cost-effectively achievable DSM energy savings, but it would help ensure the KPC pursues more DSM than the anemic levels identified in its application. In particular, the Company has agreed to double its DSM spending over the next few years, increasing from $3 million in 2013 to $4 million in 2014, $5 million in 2015, and $6 million in 2016.[44] KPC has committed to maintain a DSM spending level of at least $6 million per year in 2017 and 2018, and to "seek to maintain a minimum spending level of $6 million" per year in the years thereafter.[45] The Proposed Settlement would also authorize Sierra Club to join KPC's DSM collaborative that discusses and evaluates KPC's DSM programming.[46] In addition, the Proposed Settlement would encourage additional demand response programs by industrial customers by increasing the amount of qualified interruptible load programs that can receive credit to 75MW.[47]

In January 2012, the Commission raised significant concerns regarding KPC's apparent failure to fully promote its DSM programming. In particular, the Commission stated that:

> The Commission realizes that customer participation in DSM is voluntary and that Kentucky Power cannot compel greater participation; however, the Commission believes that most well-informed customers would choose to participate in DSM programs to avoid higher energy bills. **Therefore, the Commission strongly encourages Kentucky Power to promote its DSM programs, educate applicable customers who would qualify for DSM program participation, and work to increase participation levels in its DSM programs.** The Commission also strongly encourages Kentucky Power to educate its customers about the need for greater energy efficiency due to the rising cost of electric energy and the strain that the demand of electric usage at peak times places on both the Kentucky Power and the American Electric Power systems. We believe that Kentucky Power should make every effort to educate its customers that participation in demand-side programs represents one way in which the customers can impact the extent to which ever-increasing energy costs increase their electric bills.

[44] Proposed Settlement at ¶ 12.
[45] Id.
[46] Id.
[47] Id. at ¶ 9.

In re Application of Kentucky Power Co., KPSC Case No. 2011-00300 (Jan. 23, 2012) (emphasis added). The doubling of DSM investments included in the Proposed Settlement would provide KPC with an opportunity to not only increase its range of DSM programs, but also to satisfy the Commission's desire to see KPC increase participation in its DSM programs through better promotion and education regarding DSM. The Commission should approve the Proposed Settlement so that KPC's customers can begin reaping the benefits of increased investment in cost effective DSM.

D. The Proposed Settlement Provides a Mechanism For Reducing the Significant Economic Risk That the Mitchell Plant's Carbon Emissions Pose to KPC's Ratepayers

Another significant benefit of the proposed settlement is that it provides a mechanism for reducing the significant economic risk that the Mitchell plant's carbon emissions would pose to KPC's ratepayers. The only reasonable assumption in long term resource planning for a utility today is that there will be a cost – in the form of an allowance purchase requirement, a carbon tax, and/or direct regulation – related to carbon emissions in the foreseeable future.[48] KPC acknowledges as much by assuming in its economic modeling a base case carbon price of $15.08 per ton starting in 2022. While such assumption understates the likely future carbon cost, the record is undisputed that the Company should factor in some significant cost starting around 2020.

The need to factor a carbon cost into the type of resource planning that is at issue here was made even clearer when, on June 25, 2013, President Obama announced a comprehensive plan to cut the carbon pollution that causes climate change and endangers public health.[49]

[48] *See, e.g.*, Staff Report on the 2011 Integrated Resource Plan of Louisville Gas & Electric Company and Kentucky Utilities Company, Case No. 2011-00140 (Mar. 2013), at p. 41.

[49] The White House, Fact Sheet: President Obama's Climate Action Plan (June 25, 2013), *available at* http://www.whitehouse.gov/the-press-office/2013/06/25/fact-sheet-president-obama-s-climate-action-plan;

Noting that nearly 40 percent of this pollution is produced by the power sector, the President directed the U.S. EPA to revise its proposal for carbon pollution standards for new power plants by September 20, 2013; to issue proposed standards, regulations, or guidelines addressing carbon pollution from existing power plants by June 1, 2014; and to finalize those limits within a year.[50]

The President's announcement confirmed and publicized a regulatory process that has been underway for years. In 2007, the U.S. Supreme Court held that carbon dioxide and other greenhouse gases are covered by the Clean Air Act's broad definition of "air pollutant" and that the EPA must decide whether greenhouse gases endanger public health. *Massachusetts v. Envtl. Prot. Agency*, 127 S. Ct. 1438, 1462–63 (2007). After analyzing the available climate science, the EPA issued a formal finding that current and projected emissions of six greenhouse gases, including carbon dioxide, threaten the public health and welfare of current and future generations.[51] This finding has since been upheld by the U.S. Court of Appeals for the District of Columbia Circuit. *See Coal. for Responsible Regulation v. Envtl. Prot. Agency*, 684 F.3d 102, 120–22 (D.C. Cir. 2012). That court also confirmed that the Clean Air Act requires the EPA to address greenhouse gas emissions under its stationary source permitting programs. *Id.* at 134–36. As confirmed by these decisions, EPA has a duty under Section 111 of the Clean Air Act to issue performance standards for air pollutants from both new and existing electric generating units. *See* 42 U.S.C. § 7411(b) & (d).[52] While the precise details of these rules are still

Executive Office of the President, The President's Climate Action Plan (June 2013), *available at* http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf.

[50] *Id.*; The White House, Presidential Memorandum – Power Sector Carbon Pollution Standards (June 25, 2013), *available at* http://www.whitehouse.gov/the-press-office/2013/06/25/presidential-memorandum-power-sector-carbon-pollution-standards.

[51] U.S. EPA, Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009).

[52] 42 U.S.C. § 7411(d) provides that the EPA Administrator "shall prescribe regulations which shall establish a procedure" for states to submit proposed "standards of performance for any existing source for any air pollutant," such as CO_2, "for which air quality criteria have not been issued" but for which new source performance standards

uncertain, it is clear that utilities will need to meet new regulatory requirements (and their associated costs) in the near future.

The question, then, is not whether KPC and its ratepayers will face a cost related to carbon emissions from the Mitchell plant, but rather how much that cost will be and when it will start needing to be paid. In its application, KPC made a base case assumption of a carbon price of $15.08 per ton starting in 2022 and increasing slower than inflation to $16.72 per ton in 2030.[53] Other credible analyses project that carbon prices are likely to be significantly higher.[54] But given that KPC would be responsible for approximately 3.8 million tons of carbon emissions per year from its 50% stake in the Mitchell plant,[55] the Company's ratepayers would, even under KPC's own assumptions, likely be on the hook for tens of million dollars or more of carbon costs per year starting somewhere around 2020 due to the Mitchell transfer. And given that coal-fired generating units emit approximately twice as much carbon per unit of energy generated than a natural gas combined cycle plant, and that DSM and many renewable energy sources emit no carbon, a coal plant such as Mitchell is the largest carbon risk resource that KPC could pursue.

The Proposed Settlement seeks to reduce this significant risk in two ways.[56] First, KPC acknowledges the authority of the Commission, upon its own motion or the application of a party, to declare the Mitchell plant retired for ratemaking purposes upon a determination, after a full due process hearing, that the plant is "no longer the least cost generation resource" due to

have been established. Then-Acting EPA Administrator Robert Perciasepe recently stated that he expects that the Agency will develop these standards of performance for carbon dioxide emissions from existing power plants during fiscal year 2014. Jean Chemnick, "EPA official: Carbon rules for existing power plants 'on the table' in 2014," *Environment & Energy Daily* (Apr. 12, 2013), *available at* http://www.midwestenergynews.com/2013/04/12/epa-official-carbon-rules-for-existing-power-plants-on-the-table-in-2014/.

[53] Exhibit SCW-3; Case No. 2011-00401, Direct Test. of Dr. Jeremy Fisher at pp. 30-31.

[54] Case No. 2011-00401, Direct Test. of Dr. Jeremy Fisher at pp. 31-34.

[55] Case No. 2011-00401, Direct Test. of Dr. Jeremy Fisher at pp. 31-34.

[56] Woolf Tr. at 15:06:30 to 15:07:03.

federal, state, or local greenhouse gas laws or regulations.[57] In the event of such an early retirement of the Mitchell plant, KPC agreed that the remaining net book value and other costs for the Company's share of the plant would be recovered with a "debt-only carrying cost," rather than the typical full rate of return.[58] In other words, KPC has waived any contention that the Commission lacks the authority to declare the Mitchell plant uneconomic and out of rate base due to future carbon regulations, and has agreed to take on some of the economic cost in the event that such a declaration is made.

Second, the Proposed Settlement seeks to minimize the carbon risk to ratepayers by requiring KPC to include an economic analysis of all generating unit costs, including costs related to compliance with carbon regulations, in its future Integrated Resource Plans ("IRP").[59] This provision will help ensure that an evaluation of the economics of the Mitchell plant occurs at least every three years, and should help alert the Commission and the parties as to whether the declaration of Mitchell as uneconomic for ratemaking purposes discussed above should be pursued.

The likelihood of a price related to carbon emissions in the foreseeable future is one of the biggest reasons that coal-fired generation poses a significant economic risk for Kentucky ratepayers. Some utilities in the state, such as the Big Rivers Electric Corporation, have chosen to ignore such risk by professing certainty that carbon regulations will never materialize. While the best way for KPC to minimize carbon risk would have been to pursue lower and no carbon resources instead of more coal generation, KPC's consideration of a carbon price in its resource planning and agreement to a mechanism for reducing the impact of such carbon risk stands in contrast to the head in the sand approach to the issue taken by some other utilities. As such, the

[57] Proposed Settlement at ¶ 21(a).
[58] Proposed Settlement at ¶ 21(c); Kollen Tr. at 16:19:04 to 16:20:50.
[59] Proposed Settlement at ¶ 21(c).

carbon provisions of the Proposed Settlement provide further reason that Commission approval of the agreement is reasonable.

E. The Proposed Settlement Provides For an Evaluation of Renewable Resources.

Another way for a utility to reduce risks to its ratepayers from carbon regulations is by pursuing lower carbon resources, such as wind energy. The 50% Mitchell transfer and KPC's proposed conversion of Big Sandy Unit 1 to natural gas, however, would leave the utility still 100% dependent on fossil fuels. Unfortunately, KPC did not even evaluate the availability and cost of renewable resources as part of planning for the replacement of Big Sandy Unit 2.[60]

The Proposed Settlement takes a step to address this shortfall by requiring KPC to issue an RFP for 100MW of wind power so that the results can be incorporated into the Company's upcoming IRP to be filed in December 2013.[61] While the RFP results are not binding, they will hopefully provide valuable information regarding the availability and cost of wind resources that KPC or other Kentucky utilities could use to diversify their overly-coal dependent resource portfolios.

IV. CONCLUSION

For the foregoing reasons, and those set forth in the testimony and hearing in this proceeding, the Sierra Club respectfully urges the Commission to approve the Proposed Settlement entered into by KPC, KIUC, and Sierra Club.

[60] Direct Test. of Tim Woolf at pp. 30-31.
[61] Proposed Settlement at ¶ 19.

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)

Shannon Fisk
Managing Attorney
Earthjustice
1617 John F. Kennedy Blvd., Suite 1675
Philadelphia, PA 19103
Phone: (215) 717-4522
Fax: (212) 918-1556
sfisk@earthjustice.org

Dated: August 12, 2013

CERTIFICATE OF SERVICE

I certify that I mailed a copy of Alexander Desha, Tom Vierheller, Beverly May, and Sierra Club's Post-Hearing Brief by first class mail and e-mail on August 12, 2013 to the following:

Kenneth J. Gish, Jr.
Attorney at Law
Stites & Harbison
250 West Main Street, Suite 2300
Lexington, KY 40507

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

Jennifer B. Hans
Assistant Attorney General's Office
1024 Capital Center Drive, Suite 200
Frankfort, KY 40601-8204

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

Ranie Wohnhas
Managing Director
Kentucky Power Company
101 A Enterprise Drive
P. O. Box 5190
Frankfort, KY 40602

Kristin A. Henry

Kristin Henry