

Exhibit No.:
Issues: EV Clean Charge Network
Billing Adjustment,
Misc. Revenue:
Collection Charge
Returned Check Charge
Witness: Byron M. Murray
Sponsoring Party: MO PSC Staff
Type of Exhibit: Rebuttal Testimony
Case No.: ER-2014-0370
Date Testimony Prepared: May 7, 2015

MISSOURI PUBLIC SERVICE COMMISSION

REGULATORY REVIEW DIVISION

REBUTTAL TESTIMONY

OF

BYRON M. MURRAY

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2014-0370

*Jefferson City, Missouri
May 2015*

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Kansas City Power &)
Light Company's Request for Authority to)
Implement a General Rate Increase for)
Electric Service)

File No. ER-2014-0370

AFFIDAVIT OF BYRON M. MURRAY

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Byron M. Murray, of lawful age, on his oath states: that he has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 12 pages of Rebuttal Testimony to be presented in the above case, that the answers in the following Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.


Byron M. Murray

Subscribed and sworn to before me this 5th day of May, 2015.

LAURA DISTLER Notary Public - Notary Seal STATE OF MISSOURI Commissioned for Cole County My Commission Expires: June 21, 2015 Commission Number: 11203914
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Notary Public

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BYRON M. MURRAY

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REBUTTAL TESTIMONY

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BYRON M. MURRAY

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2014-0370

13 Q. Please state your name and business address.

14 A. My name is Byron M. Murray. My business address is 200 Madison St.,
15 Jefferson City, MO 65102.

16 Q. By whom are you employed and in what capacity?

17 A. I am a Regulatory Economist II for the Missouri Public Service Commission
18 (“Commission”).

19 Q. Please describe your education, experience and employment history.

20 A. I completed a Bachelor of Science in Agricultural Economics from Lincoln
21 University in Jefferson City, MO in 1996. I was awarded a Masters of Public Administration
22 (MPA) from the University of Missouri at Columbia in 2004. I have approximately twenty
23 (20) years of professional regulatory experience in Missouri state government.

24 Q. Are you the same Byron M. Murray who previously filed direct testimony in
25 this proceeding?

26 A. Yes. I provided testimony in the Staff’s Revenue Requirement Cost of Service
27 Report (“COS Report”) filed on April 3, 2015 regarding billing adjustments, in-field
28 collection charges and returned check charges.

Q. What is the purpose of your rebuttal testimony?

1 A. I respond to the direct testimony of KCPL witnesses Mr. Tim Rush, Mr. Darrin
2 R. Ives and Mr. Brad Lutz. More specifically, I will describe the differences between Staff's
3 and KCPL's positions on certain tariff issues, cost recovery for the Clean Charge Network,
4 billing adjustments and miscellaneous revenue charges.

5 **I. EXECUTIVE SUMMARY**

6 Q. What is Staff's position on KCPL's request to adjust billing if there is a
7 problem with the meter?

8 A. Staff supports KCPL's request for changes to its billing adjustments, which
9 will bring how KCPL makes such billing adjustments in Missouri in-line with how it makes
10 them in Kansas and how GMO makes them. Pursuant to 4 CSR 240-13.025.1:

11 4 CSR 240-13.025.1.B states the following: (B) In the event of an undercharge,
12 an adjustment shall be made for the entire period that the undercharge can be
13 shown to have existed not to exceed twelve (12) monthly billing periods or
14 four (4) quarterly billing periods, calculated from the date of discovery, inquiry
15 or actual notification of the utility, whichever was first.

16
17 Q. What is Staff's position on KCPL's request for an increased in-field collection
18 charge?

19 A. Staff recommends that the Commission deny KCPL's requests for increases in
20 the collection charge.

21 Q. What is Staff's position on KCPL's request for an increase in its returned
22 check charge?

23 A. Staff recommends that the Commission deny the request for an increase in the
24 returned check charge.

25 Q. What is the purpose of your rebuttal testimony on KCPL's Clean Charge
26 Network?

1 A. I respond to the supplemental direct testimony of KCPL witness Darrin R. Ives
2 regarding KCPL’s electric vehicle Clean Charge Network and to explain the impacts of that
3 network on the Kansas City area. Staff’ opposes how KPCL proposes to recover the costs of
4 the Clean Charge Network charging stations KCPL is installing in Missouri.

5 **II. BILLING ADJUSTMENTS**

6 Q. Does Staff approve of KCPL’s request for a change to its tariff to allow billing
7 adjustments when it determines there is a problem with a meter?

8 A. Yes, the proposed language will allow KCPL to back bill for slow meters for
9 up to 12 billing periods. Currently, the tariff language does not address the issue of billing
10 adjustments for undercharges (Will match GMO)(6.09b). Consistent adjustment terms will
11 provide customers consistent treatment and will make KCPL’s internal processes more
12 efficient.

13 Staff also recommends that the commission clarify for KCPL what a “billing
14 adjustment” is. KCPL provided the following statement requesting clarification of what a
15 billing adjustment is in its response to Staff data request 0296, “KCPL will need clarification
16 on what is considered a billing adjustment. Return checks/collection fees are created and
17 billed through an adjustment in CIS.”

18 Staff views a billing adjustment to be the correction of a bill. The bills are adjusted
19 for the previous 12 months only pursuant to 4 CSR 240-13.025.1.B as stated above.

20 **III. MISCELLANEOUS REVENUE CHARGES**

21 Q. Does Staff agree with the direct testimony of Mr. Tim Rush of KCPL on its
22 requested increases to KCPL’s returned check charge and its collection charge?

23 A. No. KCPL requested an increase in its returned check charge. KCPL has not
24 provided Staff any documentation that would support an increase in the returned check charge

1 in the current rate case. The documentation KCPL provided was from a 2006
2 (ER-2006-0314) rate case and 2010 (ER-2010-0355) rate case.

3 KCPL also requested an increase in the in-field collection charge. KCPL witness
4 Mr. Brad Lutz provided a response to Staff data request number 0298. In that response he
5 stated, "The collection charge was established as part of the Company's 2010 rate case
6 (ER-2010-0355) as offered in the testimony of Company witness Tim Rush. In that case, staff
7 data request #0557 inquired about the formulation of the charge. Attached is the Company
8 response to that data request". The documentation KCPL provided in response to Staff data
9 requests 0296, 0297 and 0298 supports the charge at its current rate. KCPL has not provided
10 Staff any documentation that would support an increase in either the collection charge or the
11 returned check charge in this rate case.

12 **IV. STAFF RECOMMENDATION**

13 Q. What does Staff recommend the Commission do in response to KCPL's
14 request to be able to make billing adjustments when it verifies that a meter is under reporting
15 usage, i.e., slow?

16 A. Staff recommends the Commission approve KCPL's request to make billing
17 adjustments for commercial entities when their meters are under reporting usage because the
18 changes would be in line with regulation 4 CSR 240-13.025. The proposed changes will
19 bring the KCPL Missouri retail jurisdiction under the same requirements as the KCPL Kansas
20 retail jurisdiction and as GMO. Rule 4 CSR 240-13.025.1.B states:

21 (B) In the event of an undercharge, an adjustment shall be made for the entire
22 period that the undercharge can be shown to have existed not to exceed twelve
23 (12) monthly billing periods or four (4) quarterly billing periods, calculated
24 from the date of discovery, inquiry or actual notification of the utility,
25 whichever was first.
26

1 Q. What does staff recommend in response to KCPL's request to increase its
2 miscellaneous revenue charges, i.e., its in-field collection and returned check charges?

3 A. Staff recommends that the Commission deny KCPL's requests to increase the
4 collection charge and the returned check charge. Due to the fact that KCPL did not provide
5 any updated studies or analysis showing an increase in the cost of service for the collection of
6 outstanding payments in the field, there is no justification for an increase in the collection
7 charge. There was no analysis provided as to the sufficiency or insufficiency of the current
8 twenty dollar (\$20) collection charge on reducing late, last minute payments by the
9 chronically slow payers.

10 Staff recommends the commission deny KCPL's request to increase its current return
11 check charge of thirty dollars (\$30). The proposed increase above the current charge is based
12 on direct testimony provided by Mr. Tim Rush in KCPL's 2006 rate case (Case No.
13 ER-2006-0314). At page ten (10) of his testimony, Mr. Tim Rush testifies that increasing the
14 fee from ten dollars (\$10) to thirty dollars (\$30) is in line with KCPL's actual returned check
15 processing and collection costs. Otherwise, KCPL has provided no current information that
16 would justify the requested increase in the returned check charge. Furthermore, KCPL does
17 not propose a specific dollar amount or percentage of increase.

18 Q. In his supplemental direct testimony¹ Mr. Ives testifies:

19 This pilot project [the Clean Charge Network] is large enough to be
20 impactful, but is moderately sized from a capital expenditure
21 perspective and extends KCP&L's commitment to environmental
22 sustainability. Along with KCP&L's environmental upgrades at several
23 local power plants, renewable energy portfolio and energy efficiency
24 programs and KCP&L's recent announcement regarding cessation of
25 burning coal at certain KCP&L and GMO generating units between
26 2016 and 2021, the KCP&L Clean Charge Network will reduce carbon
27 emissions and help the Kansas City region attain Environmental

¹ Page 3, l. 1-10

Rebuttal Testimony of
Byron M. Murray

1 Protection Agency (“EPA”) regional ozone standards which is
2 beneficial to the entire Kansas City region.

3 Do you agree?

4 A. No. Staff has reviewed data KCPL supplied in response to data requests² and
5 notes that KCPL did not do any studies showing that its Clean Charge Network will benefit
6 customers who do not own an electric vehicle.³ Based on information Staff obtained from the
7 Missouri Department of Revenue and KCPL, Staff estimates that over 99% of KCPL’s
8 Missouri customers do not own an electric vehicle (EV). The table below was produced using
9 data from the Missouri Department of Revenue for the total number of vehicles currently
10 titled and registered. The table shows that less than 1% of ratepayers would benefit from the
11 installed EV charging stations, even if there were 10,000 EVs in the KCPL jurisdictions.

² KCPL response to Staff Data Request Number 0413

³ KCPL response to Staff Data Request Number 0413.

V. **ELECTRIC VEHICLE CLEAN CHARGE NETWORK IMPACTS ON AIR QUALITY IN THE KANSAS CITY AREA.**

REQ# 2012-428 VEHICLES PER COUNTY AS OF 12/31/14 RUN DATE 01/14/15
FROM REPORT: "DM45080-01"

COUNTY	KOV DESC	TITLED	REGISTER
CARROLL	COUNTY TOTALS	22,732	14,171
CASS	COUNTY TOTALS	207,959	122,071
CHARITON	COUNTY TOTALS	20,717	13,392
CLAY	COUNTY TOTALS	381,174	239,816
HOWARD	COUNTY TOTALS	21,391	13,297
JACKSON	COUNTY TOTALS	1,132,088	614,670
JOHNSON	COUNTY TOTALS	98,129	57,101
LAFAYETTE	COUNTY TOTALS	72,470	44,586
LIVINGSTON	COUNTY TOTALS	32,633	19,678
PETTIS	COUNTY TOTALS	79,888	48,029
PLATTE	COUNTY TOTALS	186,655	108,584
RANDOLPH	COUNTY TOTALS	47,384	28,314
SALINE	COUNTY TOTALS	47,384	28,314
	KCPL SUB TOTALS:	2,350,604	1,352,023
	KCPL TOTAL:	3,702,627	

STATE-WIDE	SUB TOTALS	11,027,040	6,505,982
	STATEWIDE TOTAL:	17,533,022	

KCPL CURRENT EVs:	300	0.00810%
VEHICLES IN KCPL:	3,702,627	

KCPL PROJECTED EVs:	10,000	0.2701%
VEHICLES IN KCPL	3,702,627	

KCPL DRIVERS NOT IMPACTED:	99.73%
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REFERENCE: http://dor.mo.gov/publicreports/kov_cnty_file.txt

Q. What impact will the Clean Charge Network electric vehicle charging stations have on the air quality in the Kansas City area?

1 A. The electric vehicle load building program will have the greatest negative
2 impact during peak daytime hours when the vehicles are being charged at commercial lots.
3 The Sierra Club’s website titled, *ELECTRIC VEHICLES: MYTHS VS. REALITY*, provides the
4 following information: “A caveat to consider is that when coal plants supply the majority of
5 the power in a given area, electric vehicles may emit more CO₂ and SO₂ pollution than hybrid
6 electric vehicles. Learn where your electricity comes from, what plans your state or
7 community has for shifting to renewables, and whether you have options for switching to
8 greener power.”⁴

9 **VI. EPA 111d IMPLICATIONS**

10 Q. Does this have any implications for the State of Missouri and the EPA’s
11 proposed Clean Power Plan, which the EPA is pursuing under the authority of Section 111(d)
12 of the Clean Air Act?

13 A. Yes.

14 Q. What are those implications?

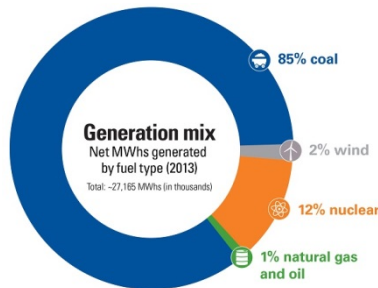
15 A. The fact sheet attached as a schedule (Schedule BM-R1) shows the Building
16 Blocks for compliance with EPA’s 111d Clean Power Plan.⁵ The guidance is specific to
17 electric generation units using fossil fuels. The guidance does not apply to tailpipe emissions.
18 The adoption of as many 10,000 electric vehicles will have little impact to improve overall air
19 quality in the Kansas City area. KCPL must address its electric generation units and lower
20 emissions from them to come into compliance with 111d.

⁴ Sierra Club Website: *ELECTRIC VEHICLES: MYTHS VS. REALITY*
<http://content.sierraclub.org/EVGuide/myths-vs-reality>

⁵ EPA Fact Sheet: <http://www2.epa.gov/sites/production/files/2014-05/documents/20140602fs-setting-goals.pdf>

1 KCPL's promotion of electric vehicles will only build load, and may increase
2 emissions due to the increased amount of electricity required to charge the vehicles.⁶ The fuel
3 source for electricity production for the Kansas City area consists primarily of coal (85%).⁷
4 KCPL's renewable energy resources only provide 2% of the energy produced⁸.**VII.**

5 **KCPL ELECTICITY GENERATION MIX**



6
7 Q. What environmental impacts would the electric vehicles have on the air quality
8 in the Kansas City area?

9 A. Electric vehicles alone aren't sufficient to impact the air quality of the Kansas
10 City area. Reducing generation of electricity through fossil fuels would have the most
11 significant impact to the air quality of the Kansas City area. The EPA's Section 111d Clean
12 Power Plan will not take the number of electric vehicles in an area into consideration. KCPL
13 also did not perform any feasibility analysis to determine the beneficial impact of its Clean
14 Charge Network on ratepayers that do not own electric vehicles.

⁶ Sierra Club Website: ELECTRIC VEHICLES: MYTHS VS. REALITY
<http://content.sierraclub.org/EVGuide/myths-vs-reality>

⁷ KCPL WEBSITE: [HTTP://WWW.KCPL.COM/ABOUT-KCPL/COMPANY-OVERVIEW/INDUSTRY-TOPICS/ELECTRICITY-GENERATION](http://www.kcpl.com/about-kcpl/company-overview/industry-topics/electricity-generation)

⁸ KCPL WEBSITE: [HTTP://WWW.KCPL.COM/ABOUT-KCPL/COMPANY-OVERVIEW/INDUSTRY-TOPICS/ELECTRICITY-GENERATION](http://www.kcpl.com/about-kcpl/company-overview/industry-topics/electricity-generation)

1 **VIII. STAFF RECOMMENDATIONS**

2 Q. Do you agree with KCPL, as stated in the supplemental direct testimony of its
3 witness Darrin R. Ives,⁹ that KCPL's retail customers should pay for any part of its Clean
4 Charge Network?

5 A. No. Staff recommends denying KCPL's request to increase its miscellaneous
6 O&M expenses by \$555,000 for electric vehicle charging stations. KCPL, its investors, and
7 the affiliates of the project are the cost causer of the electric vehicle charging stations. The
8 cost causers should cover the full cost of this project, not the captive ratepayers. This venture
9 is a voluntary effort by KCPL, which has significant financial risk. Essentially KPCL is
10 requesting that its retail customers in Missouri provide the venture capital for its speculative
11 project.

12 As Staff stated in direct testimony, there are currently several non-KCPL charging
13 stations in KCPL's Missouri service territory. Staff is concerned that KCPL's proposal would
14 undermine this naturally developing market since KCPL, unlike its competitors, would have
15 the advantage of recovering the costs of the charging stations from captive customers who do
16 not own EVs. KCPL promotion of EV adoption in the Kansas City area is a load building
17 program that may increase emissions in the Kansas City area. KCPL only produces
18 approximately 2% of the electricity it needs to serve its customers through wind power¹⁰.

19 The EVs will not have positive impact on the air quality of the Kansas City area. The
20 source of electricity used to charge the vehicles would have to be a zero emission source to
21 impact the air quality in the Kansas City area. Due to the current generation mix of KCPL,

⁹ Page 3

¹⁰ KCPL WEBSITE: [HTTP://WWW.KCPL.COM/ABOUT-KCPL/COMPANY-OVERVIEW/INDUSTRY-TOPICS/ELECTRICITY-GENERATION](http://www.kcpl.com/about-kcpl/company-overview/industry-topics/electricity-generation)

1 which is 85% coal, the Kansas City area air quality may actually become worse due to the
2 Clean Charge Network. The proposed 10,000 EVs charging at the same time during peak
3 hours would be detrimental to the air quality due to increased emissions.

4 **IX. CASE STUDY: CITY OF INDIANAPOLIS – BLUEINDY PROJECT**

5 Q. Has a similar electric vehicle charging network been proposed anywhere else
6 in the Midwest?

7 A. Yes, the City of Indianapolis, Indiana, Indiana Power and Light Company
8 (IPL) and the BlueIndy Project jointly petitioned the Indiana Utility Regulation Commission
9 (IURC) for approval of an alternative regulation plan. The plan includes the extension of
10 distribution and service lines, installation of facilities, and accounting and ratemaking of costs
11 thereof, for purposes of the City of Indianapolis and the BlueIndy’s electric vehicle sharing
12 program pursuant to Ind. Code 8-1-2.5-1 ET SEQ.

13 The IURC ordered the Settlement and IPL’s proposed ARP, as modified by the
14 Settlement, are denied with respect to Installation Costs.¹¹ The second part of the order stated
15 that the Settlement and IPL’s proposed ARP, as modified by the Settlement, are approved
16 with respect to Extension Costs and other elements, subject to the condition that the BlueIndy
17 Project moves forward.¹² The project was denied recovery of the installation costs for the
18 electric vehicle charging stations.

19 Below is evidence from the Indiana case presented by Mr. Kerwin L. Olson,
20 Executive Director of the Citizens Action Coalition of Indiana who intervened in the case
21 opposing the Settlement. Mr. Olson provided the following Direct Testimony, which stressed
22 the fact the project wasn’t beneficial to all ratepayers in addition to other concerns below.

¹¹ State of Indiana, Indiana Utility Regulatory Commission, Cause No. 44478, Approved Feb. 11, 2015, page 21

¹² State of Indiana, Indiana Utility Regulatory Commission, Cause No. 44478, Approved Feb. 11, 2015, page 21

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1 “Mr. Olson recommended the Commission deny the request for cost recovery for the
2 BlueIndy Project, stating that it is simply an improper use of ratepayer funds. Mr. Olson
3 applauded the Mayor for his strong desire to move Indianapolis beyond oil and to improve the
4 environment. But he said that the CAC opposes forcing IPL's captive ratepayers to subsidize a
5 program and assume risk for a project that has absolutely nothing to do with IPL's obligation
6 to provide affordable and reliable electric service to its ratepayers.

7 Mr. Olson pointed out that the extension of electric facilities for the EV sharing
8 project does not come close to meeting the 30-month revenue test in 170 IAC 4-1-27. He
9 expressed concerns regarding the City's lack of effort in seeking other funding options and the
10 fact that the City never brought the proposal to the Indianapolis City-County Council. He
11 acknowledged that Bollore is investing approximately \$35 million for this project, but said
12 that Bollore's investment is voluntary, which is exactly how private investments should work.
13 Mr. Olson stated that the investment being asked of IPL's ratepayers is involuntary.

14 He explained that IPL's ratepayers are subject to monopoly service, meaning that they
15 cannot choose another electric service provider within IPL's service territory. Mr. Olson also
16 stated CAC's disapproval of the fact that Bollore and its investors will be made whole before
17 captive IPL ratepayers. He explained that the profit sharing mechanism has no certainty of
18 any benefits to IPL ratepayers and may never mitigate the overall rate impact to IPL's
19 ratepayers.”¹³ Mr. Olson was not a party to the Settlement.

20 Q. Does this conclude your rebuttal testimony?

21 A. Yes.

¹³ State of Indiana, Indiana Utility Regulatory Commission, Cause No. 44478, Approved Feb. 11, 2015, page 5, Section 7, CAC's Evidence.

NATIONAL FRAMEWORK FOR STATES

SETTING STATE GOALS TO CUT CARBON POLLUTION

On June 2, 2014, the U.S. Environmental Protection Agency, under President Obama's Climate Action Plan, proposed a commonsense plan to cut carbon pollution from power plants. Nationwide, by 2030, the Clean Power Plan will help cut carbon emissions from the power sector by 30 percent from 2005 levels, while starting to make progress toward meaningful reductions in 2020.

- **Setting state goals**—To set state-specific goals, EPA analyzed the practical and affordable strategies that states and utilities are already using to lower carbon pollution from the power sector. These include improving energy efficiency, improving power plant operations, and encouraging reliance on low-carbon energy. Together, these make up the best system for reducing carbon pollution because they achieve meaningful reductions, and create jobs by driving clean energy investment and reducing energy waste to save families money.
- **Goals give states flexibility**—Each state has the flexibility to choose how to meet the goal using a combination of measures that reflect its particular circumstances and policy objectives. While EPA identified a mix of four “building blocks” that make up the best system of emission reductions under the Clean Air Act, a state does not have to put in place the same mix of strategies that EPA used to set the goal. States are in charge of these programs and can draw on a wide range of tools, many of which they are already using, to reduce carbon pollution from power plants and meet the goal, including renewable energy portfolios and demand-side energy efficiency measures.

SETTING STATE GOALS

- EPA is proposing state-specific emissions goals for reducing carbon dioxide (CO₂) emissions from the power sector.
- These state goals are not requirements on individual electric generating units. Rather, each state has broad flexibility to meet the rate by 2030 by lowering the overall carbon intensity of the power sector in the state.
- The basic formula for the state goal is a rate: CO₂ emissions from fossil fuel-fired power plants in pounds (lbs) divided by state electricity generation from fossil-fuel fired power plants and certain low- or zero-emitting power sources in megawatt hours (MWh).
 - This approach factors in megawatt hours from fossil fuel power plants plus other types of power generation like renewables and nuclear, as well as megawatt-hour savings from energy efficiency in the state.
- State- and regional-specific information is plugged into the formula, and the result of the equation is the state-specific goal.
- Each state's goal is different, because each state has a unique mix of emissions and power sources to plug in to each part of the formula.

- EPA is proposing a two-part goal structure: an “interim goal” that a state must meet on average over the ten-year period from 2020-2029 and a “final goal” that a state must meet at the end of that period in 2030 and thereafter.

GOALS GIVE STATES FLEXIBILITY

- Each state will choose how to meet the goal through whatever combination of measures reflects its particular circumstances and policy objectives. A state does not have to put in place the same mix of strategies that EPA used to set the goal, and there are no specific requirements for specific plants.
- EPA is proposing the state goal approach under Section 111(d) of the Clean Air Act, which requires that EPA identify the “best system of emission reduction ... adequately demonstrated” (BSER) that is available to limit pollution – and set guidelines for states to achieve reductions that reflect that system. States then make plans to get the reductions that would result from that system.
- In this case, EPA identified four sets of measures – or “building blocks” – that are in use today by many states and utilities and that together make up the best system for reducing carbon pollution.
- These building blocks recognize the interconnected nature of the power sector – looking broadly to find cost-effective and proven solutions.
 - For example, 47 states have utilities that run demand-side energy efficiency programs, 38 states have renewable portfolio standards or goals, and 10 states have market-based greenhouse gas programs.
- EPA analyzed historical data about emissions and the power sector to create a consistent national formula for reductions that reflects the building blocks. The formula applies the building blocks to each state’s specific information, yielding a carbon intensity rate for each state.

Building Block	Value Allocated in Goal-Setting Formula
Make fossil fuel power plants more efficient <ul style="list-style-type: none"> • Improve equipment and processes to get as much electricity as possible from each unit of fuel • Using less fossil fuel to create the same amount of electricity means less carbon pollution. 	Average heat rate improvement of 6% for coal steam electric generating units (EGUs)
Use low-emitting power sources more <ul style="list-style-type: none"> • Using lower-emitting power plants more frequently to meet demand means less carbon pollution. 	Dispatch to existing and under-construction natural gas combined cycle (NGCC) units to up to 70% capacity factor
Use more zero- and low-emitting power sources <ul style="list-style-type: none"> • Expand renewable generating capacity, which is consistent with current trends. • Using more renewable sources, including solar and wind, and low-emitting nuclear facilities, means less carbon pollution. 	Dispatch to new clean generation, including new nuclear generation under construction, moderate deployment of new renewable generation, and continued use of existing nuclear generation

Building Block	Value Allocated in Goal-Setting Formula
<p>Use electricity more efficiently</p> <ul style="list-style-type: none"> Reducing demand on power plants is a proven, low-cost way to reduce emissions, which will save consumers and businesses money and mean less carbon pollution. 	<p>Increase demand-side energy efficiency to 1.5% annually</p>

- EPA is also proposing to give states the option to convert the rate-based goal to a mass-based goal if they choose to in their state plans.
 - Adopting a mass-based goal would better allow a state or group of states to cap their tonnage of CO₂ emissions and set up a trading program if they choose that option.
- States can develop a state-only plan or collaborate with each other to develop plans on a multi-state basis to meet the goals outlined in the proposal.
- EPA is only proposing goals for states with fossil fuel-fired power plants. Vermont and Washington, DC are not included in this rule because they do not have fossil fuel-fired power plants.
- EPA is not proposing emission rate goals or guidelines for the four affected sources located in Indian country at this time. EPA will work with those tribes and sources to develop or adopt Clean Air Act programs.

FOR MORE INFORMATION

EPA will accept comment on the proposal for 120 days after publication in the Federal Register and will hold four public hearings on the proposed Clean Power Plan during the week of July 28 in the following cities: Denver, Atlanta, Washington, DC and Pittsburgh. The proposed rule, information about how to comment and supporting technical information are available online at: <http://www.epa.gov/cleanpowerplan>