

BEFORE THE CORPORATION COMMISSION OF OKLAHOMA

IN THE MATTER OF THE APPLICATION OF)
OKLAHOMA GAS AND ELECTRIC COMPANY)
FOR COMMISSION AUTHORIZATION OF A)
PLAN TO COMPLY WITH THE FEDERAL CLEAN)
AIR ACT AND COST RECOVERY; AND FOR)
APPROVAL OF THE MUSTANG MODERNIZATION)
AND COST RECOVERY)

CAUSE NO. PUD 201400229

FILED

JAN 26 2015

COURT CLERK'S OFFICE - OKC
CORPORATION COMMISSION
OF OKLAHOMA

REDACTED

Rebuttal Testimony

of

Usha-Maria Turner

on behalf of

Oklahoma Gas and Electric Company

January 26, 2015

Usha-Maria Turner
Rebuttal Testimony

1 Q. **Please state your name, your employer, position and business address.**

2 A. My name is Usha-Maria Turner. I am the Director of Corporate Environmental for
3 Oklahoma Gas and Electric Company (“OG&E” or “Company”). My business address is
4 321 N. Harvey, Oklahoma City, Oklahoma 73102.

5

6 Q. **Did you previously file Direct Testimony in this proceeding?**

7 A. Yes.

8

9 Q. **Have you reviewed the Responsive Testimony filed in this cause?**

10 A. Yes.

11

12 Q. **What will your rebuttal testimony address?**

13 A. My testimony addresses (i) certain portions of the Responsive Testimony filed by Sierra
14 Club, Oklahoma Corporation Commission Public Utility Division and Oklahoma Energy
15 Results, LLC (OER)¹ regarding the consideration of compliance costs of proposed or
16 pending rules in the 2014 IRP Update; (ii) certain portions of the Responsive Testimony
17 filed by Sierra Club regarding the use of a carbon price in the base case and the
18 assumptions with regard to Selective Catalytic Reduction (“SCR”) retrofit installations;
19 and (iii) the value of the current Mustang site and why OG&E’s ability to use historical
20 netting is advantageous. I will also provide a short permitting update on the various
21 projects for which OG&E needs permits.

¹ Responsive Testimony of Witness Fisher: Page 5, line 14-16; Responsive Testimony of Witness Comings: Page 14, line 13-15, Responsive Testimony of Witness Wilson: Page 3, line 16-25; Responsive Testimony of Witness Roach: Page 34, line 9-11; Responsive Testimony of Witness Rose: Page 11, line 19-21.

FUTURE REGULATORY COST AND UNCERTAINTY

1
2 **Q. How would you summarize the concerns of Intervenor's regarding OG&E's review of**
3 **the environmental risks associated with future regulatory risks?**

4 A. Various witnesses, including Sierra Club's witness Comings,² state that OG&E "ignores"
5 the risk of future regulations in its analysis and some list several proposed or pending rules
6 that they contend OG&E should have developed "proxy costs" for and included in the
7 economic analysis.

8
9 **Q. Is it true that OG&E has ignored or failed to recognize the risk of future regulations**
10 **in its analysis and decision making process?**

11 A. No. OG&E included future regulatory risk in its economic analysis and considered those
12 risks in selecting an environmental compliance alternative.

13
14 **Q. How did OG&E include future regulatory risks in its economic analysis?**

15 A. As discussed by Witness Howell, in developing the 2014 IRP Update, OG&E did
16 economic sensitivity analyses to reflect the inclusion of a carbon tax or carbon costs.
17 Witness Howell also explains how various levels of coal unit conversions were included
18 into two of the three modeled scenarios, including the base case scenario. Those assumed
19 coal conversions reflect future regulatory risks associated with coal units and varying
20 amounts of coal units being converted to natural gas because of increasing environmental
21 regulations.

22
23 **Q. Why does OG&E not include "proxy costs" associated with other rules in its**
24 **economic analysis?**

25 A. The costs of environmental rules that are under development or proposed are inherently
26 uncertain due to the regulatory process for developing and finalizing new environmental
27 rules. As discussed further below, several rules that were mentioned in Responsive
28 Testimony have been recently finalized (such as the Cooling Water Intake Rules
29 promulgated under Section 316(b) of the Clean Water Act and the Coal Combustion
30 Residual ("CCR") Rule) and the final versions of these rules will involve significantly

² Responsive Testimony of Tyler Comings: Page 23, line 11, Page 24, line 8.

1 lower compliance costs compared to the way they were originally proposed. Also, other
2 proposed rules have been delayed and are not certain enough to have quantifiable impacts
3 to include in the economic analysis.
4

5 **Q. What are the benefits of waiting for a rule to be finalized before including**
6 **compliance costs in economic analysis or taking steps to comply?**

7 A. There are numerous examples of environmental rules that were proposed one way and
8 finalized very differently. As such, if OG&E had acted on some of these proposed rules
9 before they were finalized, it could have spent significant capital and on-going operations
10 and maintenance costs that were never ultimately required. In addition, from my
11 perspective, if OG&E had included the premature costs associated with the proposed rules
12 in the economic modeling, there is a risk that it could have created misleading economic
13 modeling results. Therefore, by taking the responsible action to wait for the rulemaking
14 process to become clear, OG&E avoided unnecessary costs to the benefit of customers.
15

16 **Q. Can you provide an example of how OG&E benefited its customers from not acting**
17 **too soon on a proposed rule?**

18 A. Yes, there are several examples. The Environmental Protection Agency (“EPA”) recently
19 promulgated a Cooling Water Intake Structures rule under Section 316(b) of the federal
20 Clean Water Act in an effort to protect fish populations from cooling water intake
21 structures at electric generating facilities.³ This was not the first attempt that EPA has
22 made to promulgate these rules. In fact, this rule has been repropoed and finalized three
23 separate times over the past forty years.⁴ The *latest* final rule was published in August
24 2014 and is currently under litigation in the appeals courts.

25 As described in OG&E’s response to Sierra Club’s Direct Request 1-16, OG&E
26 had previously estimated that the potential cost of compliance with the 2004 proposed
27 rule, which was the second attempt at rulemaking by EPA,⁵ could be as much as \$■

³ National Pollutant Discharge Elimination System—Final Regulations To Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities. Vol. 79, No. 158. 48300. August 19, 2014.

⁴ Proposed Rule, 76 FR 22174 (April 20, 2011); Final Rule 69 FR 41576 (July 9, 2004); Proposed Rule 68 FR 17122 (April 9, 2002) ; Final Rule 41 FR 17387 (April 26, 1976); Proposed Rule 38 FR 34410 (December 13, 1973).

⁵ See OG&E response to Sierra Club Data Request 1-16_Confidential.

1 million per unit to install cooling towers at seven OG&E coal and natural gas units.
2 However, the 2004 rule and its requirements never went into effect and the third and most
3 current version of the rule, which was finalized in August 2014, will not require those very
4 high costs. While OG&E is still looking at what the final cost will be to comply with the
5 most recent version of the rule, OG&E is confident that cooling towers (the most
6 expensive option for complying with the rule) will not be required nor will other equally
7 expensive measures be needed.
8

9 **Q. Are there any other examples of how OG&E benefited its customers from not acting**
10 **too soon on a proposed rule?**

11 A. Yes. EPA's CCR rulemaking is another good example of why OG&E was prudent to wait
12 until the final rule was promulgated before taking action. In 2008, EPA embarked on a
13 rulemaking for disposal and use of coal ash. A rule was proposed in June 2010⁶ which
14 proposed three options for regulation of coal ash. The most stringent option would have
15 treated the coal combustion byproduct as a hazardous material for the first time.⁷ Had
16 OG&E acted on the proposed rule and assumed that coal ash would have been regulated as
17 a hazardous waste, OG&E would have potentially incurred hundreds of millions in costs
18 attributable to reengineering and rebuilding the coal ash handling system at both Sooner
19 and Muskogee for compliance.⁸ None of these costs are required under the final version
20 of the rule.⁹

⁶ 75 FR 35128. June 21, 2010. Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities; Proposed Rule, Available at <http://www2.epa.gov/coalash/coal-ash-rule>

⁷ 65 Fed. Reg. 32214 (May 22, 2000). EPA published the Phase II Bevill Regulatory Determination in the Federal Register, officially deciding that fossil fuel combustion wastes "do not warrant regulation under Subtitle C of RCRA" and retaining the Bevill exemption under RCRA § 3001(b)(3)(C).

⁸ Costs taken from EOP report: Cost Estimates for the Mandatory Closure of Surface Impoundments Used for the Management of Coal Combustion Byproducts at Coal-Fired Electric Utilities, 2011, available at http://www.whitehouse.gov/sites/default/files/omb/assets/oira_2040/2040_03182013-1.pdf and Comments from the Electric Power Research Institute (EPRI). Docket ID: EPA-HQ-RCRA-2009-0640. Available at [Regulations.gov](http://www.regulations.gov)

⁹ Final rule released on December 19th 2014. Prepublication version available at <http://www2.epa.gov/coalash/coal-ash-rule>

1 Q. Do any of the parties fault OG&E for not including litigation risk in its economic
2 modeling?

3 A. Yes. Sierra Club faults OG&E for failing in its economic modeling to include costs of
4 compliance associated with New Source Review (“NSR”) lawsuits filed by EPA and the
5 Sierra Club.¹⁰ Sierra Club is referring to two separate lawsuits filed in the Western and
6 Eastern Districts of Oklahoma that assert that OG&E undertook certain projects at its coal
7 units without seeking the necessary permits and without installing certain emissions
8 control equipment.¹¹ The Western District case was filed by the EPA in July 2013. The
9 Sierra Club had since intervened in the Western District proceeding. The Eastern District
10 case was filed by the Sierra Club alleging that OG&E made modifications at Muskogee
11 without obtaining appropriate permits and that the plant had exceeded permit limits.¹²
12 Sierra Club argues that these lawsuits involve risks that would drive OG&E to install
13 costly environmental controls if OG&E lost those lawsuits and therefore, OG&E should
14 have quantified those risks in the economic analysis.

15
16 Q. Do you agree with Sierra Club that the correct thing to do was include those costs in
17 the economic analysis?

18 A. No. First, there is inherent uncertainty involved with this NSR litigation. It is not
19 appropriate to quantify risks of this litigation in economic modeling because the outcome
20 and timing of litigation is so uncertain. Second, both lawsuits have now been dismissed
21 by orders of the courts. The Eastern District case was dismissed in orders issued in March
22 and May 2014 and the Western District case was dismissed on January 15, 2015.¹³

¹⁰ Responsive Testimony of Witness Comings: Page 24, line 1-5.

¹¹ Case No. CIV-13-690-D. July 8, 2013, U.S. vs Oklahoma Gas & Electric: seeking for declaratory relief against OG&E alleging that OG&E did not follow the federal Clean Air Act procedures for projecting emission increases attributable to eight projects that occurred between 2003 and 2006.

¹² August 12, 2013. U.S. District Court for the Eastern District of Oklahoma (Case No. 13-CV-00356)

¹³ Both decisions remain subject to appeal. The Eastern District decision is on appeal to the U.S. Court of Appeals for the Tenth Circuit (Case No. 14-7065). The time to file notices of appeal from the Western District decision expires on March 16, 2015.

1 Q. Did OG&E consider future regulatory risks in choosing its environmental
2 compliance plan?

3 A. Absolutely. OG&E accounted for future environmental risks when deciding on the
4 environmental compliance plan. As explained by Witness Howell, the Scrub/Convert
5 option was always either the lowest or second lowest cost plan. As I explained in my
6 Direct Testimony, this Scrub/Convert plan was also reasonable in light of the future
7 regulatory risks I identified: “OG&E’s plan to convert two of its existing coal units to
8 natural gas not only meets the current requirements of the Regional Haze and Mercury and
9 Air Toxics Standards (“MATS”) rules but also better positions the Company toward
10 mitigating the potential future risks for coal generation.”

11 Here are some of the points that I made in my Direct Testimony; points that the
12 aforementioned witnesses failed to recognize:

- 13 • CPP (or the 111(d) rule): “OG&E’s environmental compliance plan to fuel switch to
14 natural gas at its Muskogee 4 and 5 units helps meet RHR and MATS requirements, but it
15 also has the advantage of better positioning the Company and the State of Oklahoma to
16 meet the CO₂ emission targets if they are ultimately required.”¹⁴
- 17 • Cross State Air Pollution Rule (CSAPR): “the low-NO_x combustion equipment being
18 installed, as well as OG&E’s decision to convert two Muskogee base load coal units to
19 natural gas units, will significantly reduce the annual amount of NO_x emissions and help
20 mitigate risks associated with any future CSAPR compliance requirements”¹⁵
- 21 • National Ambient Air Quality Standards (NAAQS): “OG&E’s plan to convert two base
22 load coal units to natural gas units at Muskogee will help mitigate risks associated with
23 future NAAQS compliance. The converted Muskogee units will have little to no SO₂
24 emissions and will result in a significant reduction in ozone-causing NO_x emissions from
25 that facility. Also, the modernization of the Mustang facility will involve the retirement of
26 older, less efficient gas units and the use of modern, efficient combustion turbines with
27 lower NO_x emissions rates.”¹⁶

¹⁴ Direct Testimony of Witness Turner, page 12, line 5-8.

¹⁵ Direct Testimony of Witness Turner, page 12, line 23-26.

¹⁶ Direct Testimony of Witness Turner, page 13, lines 5-11.

- 1 • CCR Rule: “OG&E’s environmental compliance plan mitigates the risk associated with
2 this rule, as it significantly reduces the amount of coal combustion residuals being
3 generated by converting two 500 MW coal units to natural gas.”¹⁷
4

5 **INCLUSION OF CO₂ COSTS IN THE BASE CASE**

6 Q. **Did OG&E use a carbon tax or carbon cost in its modeling analysis?**

7 A. Yes. As explained by Witness Howell, OG&E needed to use a measure of CO₂ cost to
8 model the potential impact of CO₂ regulation through a sensitivity analysis. A carbon tax
9 or carbon cost is the simplest way to quantify and model this impact and is used in the IRP
10 modeling process as a proxy for any future carbon regulation and for seeing how the
11 various Environmental Plan compliance alternatives look in the future when layered with
12 a cost increase associated with carbon regulation.
13

14 Q. **Did OG&E include a proxy cost for carbon in the base case?**

15 A. No. As discussed by Witness Howell, OG&E did not include a CO₂ cost or tax in the base
16 case because including such CO₂ costs in the base would in effect account for the impact
17 of carbon regulations twice. Two of OG&E’s three scenarios, including its base case,
18 already assume coal unit retirements due to SPP members being required to control
19 emissions (including CO₂) on their coal units. The Clean Power Plan (“CPP”), which is
20 meant to reduce CO₂ emissions across the country, is still only a proposed rule. There is
21 inherent uncertainty in the outcome of this proposed rule and, as such, it is inappropriate
22 to include those costs in the base case. The proposed CPP has received approximately 3.7
23 million comments, has been delayed and is already subject to current and future litigation
24 risk.
25

26 Q. **What does the Sierra Club say about how OG&E accounted for the cost of CO₂
27 regulation?**

28 A. The Sierra Club witnesses believe that the CPP, as proposed, will become final regulation
29 by June 2015 and that the final rule will resemble the proposed rule enough such that
30 OG&E should have assumed a carbon tax or price adder onto its coal generation in its

¹⁷ Direct Testimony of Witness Turner, page 13, line 18-21.

1 base case scenario during its 2014 IRP Update. That is, Sierra Club believes that carbon
2 regulation is so certain that OG&E should include a proxy CO₂ cost to reflect the CPP in
3 the 2014 IRP Update Base Case.
4

5 **Q. What is the problem with Sierra Club's desire to include a carbon tax or carbon cost**
6 **in the base case?**

7 A. Sierra Club's methodology effectively overestimates the cost of compliance because (i) the
8 proposed CPP rule may not be implemented in its current form or may not survive judicial
9 scrutiny; and (ii) the final regulation may not require any reductions from the scrubbed
10 Sooner units at all or may not require OG&E to take any further action beyond the
11 Scrub/Convert plan to comply with the proposed rule.
12

13 **Q. Does the proposed CPP levy any kind of carbon tax on CO₂ emitters or require any**
14 **specific facilities to undertake any retrofits or emission controls?**

15 A. No. The proposed rule does not impose a tax or fee on emissions of carbon dioxide on
16 generating facilities, nor does it prescribe compliance requirements on specific facilities.

17 **Q. Why does OG&E believe that it is too early to account for a carbon cost in the base**
18 **case as a result of the CPP?**

19 A. As stated above, the CPP is still only a proposed rule and the details of what will be in the
20 final rule (if and when promulgated) remains to be determined. The EPA recently
21 announced plans to delay final promulgation of the rule until mid-summer 2015.¹⁸ Over
22 3.7 million comments were filed in response to EPA's proposed rule.¹⁹ These comments
23 raise significant issues.

24 For example, in its comments on the proposed rule, the Oklahoma Department of
25 Environmental Quality ("ODEQ") identifies legal, implementation and administrative
26 concerns with the proposed rule stating that "[b]ecause this proposal is extremely broad
27 and requests a vast amount of specific input and information from the public and the
28 states, it is impossible for anyone to know the form that EPA's final proposal will take,

¹⁸ Announcement available at <http://www2.epa.gov/carbon-pollution-standards/fact-sheet-clean-power-plan-carbon-pollution-standards-key-dates>. January 7, 2015.

¹⁹ See EPA CPP Docket (EPA-HQ-OAR-2013-0602) available at [Regulations.gov](http://www.regulations.gov).

1 much less the benefits and requirements that will result.”²⁰ ODEQ also expresses
2 concerns on the proposed timeline stating “[p]rudence requires that the development and
3 implementation deadlines in any version of the rule promulgated set forth implementation
4 deadlines extended beyond those contained in the Proposed Rule.”²¹ The Oklahoma
5 Secretary of Energy and the Environment also expresses concerns on the legal basis of the
6 rule, electric reliability and the ability of the state to implement the rule and also requests
7 the rule to be withdrawn. Finally, the Southwest Power Pool (“SPP”), which is responsible
8 for overseeing regional electric reliability, raise significant concerns about the CPP’s
9 impact on reliability, stating that the CPP could lead to “widespread reliability risks
10 resulting in significant loss of load and violations of NERC reliability standards.”²²
11 Concerns regarding reliability have also been submitted by other regional reliability
12 entities and the North American Electric Reliability Corporation (“NERC”).

13 It is also uncertain whether the final rule will withstand judicial scrutiny.
14 Numerous commenters question the legal basis for EPA’s proposed rule, including
15 Attorneys General from Oklahoma and 16 other states. Those 17 Attorneys General filed
16 comments that argued that EPA should scrap the proposal due to “numerous legal defects,
17 each of which provides an independent basis to invalidate the rule in its entirety.”²³ There
18 are even multiple suits against the proposed rule pending review in the D.C. Circuit of
19 Appeals, claiming EPA lacks Clean Air Act authority for the rule.

20 Finally, even after the final rule is promulgated and survives judicial scrutiny, the
21 states must then develop and submit plans to implement the requirements of the rule.
22 Such a state compliance plan could take time and could involve additional legal
23 challenges. In its comments on the proposed rule, the ODEQ has found major flaws in the
24 CPP, stating that “it is the position of the [ODEQ] that EPA’s proposed rule is
25 fundamentally flawed and unworkable.”²⁴

²⁰ ODEQ comments on EPA’s proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (Docket ID No. EPAHQ-OAR-2013-0602), at page 3 (“ODEQ CPP Comments”)

²¹ *Id.* at 5.

²² See SPP Comments, Docket ID No. EPA-HQ-OAR-2013-0602, page 4, available at http://www.spp.org/publications/2014-10-09_SPP%20Comments_EPA-HQ-OAR-2013-0602.pdf

²³ See Comment from the Attorneys General of the States of Oklahoma, West Virginia, Nebraska, Alabama, Florida, Georgia, Indiana, Kansas, Louisiana, Michigan, Montana, North Dakota, Ohio, South Carolina, South Dakota, Utah and Wyoming on Proposed EPA Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, Docket ID No. EPA-HQ-OAR-2013-0602, at page 1.

²⁴ ODEQ CPP Comments at 1.

1 Given all this, it is simply unreasonable to assume that a carbon price should be
2 applied in the base case.

3
4 **Q. Does the Sierra Club recognize how uncertain the CPP and its final requirements**
5 **will be?**

6 A. Yes. Sierra Club witnesses admit that they have no idea what the final CPP rule will say.
7 Witness Fisher says he does not have “a good sense of what the CPP will require when
8 implemented in Oklahoma,” and “[s]tates are currently figuring out mechanisms by which
9 they can comply, and searching for cost-effective means of meeting EPA’s anticipated
10 final regulations.”²⁵ Mr. Fisher also states that “there remains uncertainty about the final
11 form of the rule, its application, and its stringency.”²⁶

12 **Q. If finalized as proposed, would the CPP require emissions reductions from the**
13 **Sooner facility?**

14 A. No. EPA’s proposed CPP seeks to make a 43% reduction²⁷ in the emissions rate
15 (lb/MWh) of CO₂ (or mass equivalent annual tonnage cap)²⁸ from *all* existing electric
16 utilities in Oklahoma by 2030. The Clean Air Act then requires the ODEQ to determine,
17 after an assessment of affected sources, what emissions reductions measures are to be
18 required in order to meet the state’s limit. This proposed rule also allows states some
19 flexibility in compliance options with the requirements of the rule, *i.e.* emissions rate or
20 emissions tonnage cap.

21 The rule does not specify a specific emissions rate to be applied to each facility,
22 does not require each source to individually comply with the *state* rate, and certainly does
23 not require reductions from all coal units. In addition, the proposed rule would currently
24 allow the state to utilize increases in energy efficiency and renewable energy to count as
25 CO₂ reductions, but it is unclear how those energy efficiency or renewable energy credits
26 could be used to comply with the CO₂ targeted reductions. Needless to say, it is unclear

²⁵ Responsive Testimony of Witness Fisher: Page 11, lines 3-3-9.

²⁶ Responsive Testimony of Witness Fisher: Page 19, line 9-10.

²⁷ Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,958 (proposed June 18, 2014) (to be codified at 40 C.F.R. pt. 60).

²⁸ *ID* at page 34951.

1 what kind of reductions will be required by the State of Oklahoma to meet the targets in
2 the rule, if it is promulgated and survives judicial review.

3
4 **Q. Will CO₂ regulations necessarily retire Sooner?**

5 A. No. EPA's proposed CPP rule does not call for, nor does it drive the retirement of all coal
6 units in the state. It is unreasonable to believe that a final CO₂ rule will require the
7 retirement of all coal units in Oklahoma in the 2014 IRP Update timeframe. EPA has
8 even said that, after implementation of the proposed rule, coal and natural gas will remain
9 leading sources of electricity generation.²⁹ Nevertheless, as explained above, OG&E's
10 Scrub/Convert Plan positions the Company to make a meaningful contribution to
11 Oklahoma's efforts to meet any statewide CO₂ reduction targets that are ultimately
12 required by the EPA.

13 **Q. Is OG&E contributing significantly to the ability of the State of Oklahoma to meet**
14 **the targets contained in the proposed CPP?**

15 A. Yes. In addition to the two coal units being retired by Public Service Company of
16 Oklahoma (PSO) and the additional coal unit being retired by Grand River Dam Authority
17 (GRDA) before the 2030 compliance target under the proposed CPP,³⁰ OG&E's plan
18 involves converting two of its five coal units to natural gas. That is, OG&E's
19 Scrub/Convert Plan will convert 40 percent of its coal generation fleet to natural gas.
20 OG&E's modeling projects that the Scrub/Convert Plan will reduce the tons of CO₂
21 emissions by 43 percent by 2030 as compared to the baseline year of 2012. These CO₂
22 emission reductions are significant and the Scrub/Convert plan positions OG&E to
23 provide a meaningful contribution to any state CO₂ reduction target that is ultimately
24 required by EPA. As such, it is not likely that OG&E will be required to make any
25 additional CO₂ reductions in emissions at the scrubbed Sooner units in order for the state
26 to meet its proposed targets. This is a primary reason why adding a carbon tax or cost on
27 top of the Scrub/Convert plan in the base case overestimates the impact the proposed rule
28 could have on OG&E.

²⁹ See EPA Clean Power Plan presentation, at slide 16, available at <http://www.occ.state.ok.us/DEQ-EPA-Presentations.html>.

³⁰ These 5 units accounted for 48% of the state's coal unit CO₂ emissions in 2012.

THE SCR ASSUMPTION

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

Q. **What did the Sierra Club witnesses state about SCRs?**

A. Sierra Club witness Comings states that it is likely that an SCR may be needed for future compliance with a number of potential rules including Ozone NAAQS, NSR lawsuits and CSAPR and therefore the cost of SCRs should be included in the economic analysis.³¹

Q. **What is an SCR?**

A. An SCR is a post-combustion (*i.e.*, located downstream of the boiler) NO_x control device capable of high levels of emissions reduction.

Q. **Were SCRs evaluated for compliance with Regional Haze?**

A. Yes. As detailed in the Direct Testimony of Witness Burch, as part of the Best Available Retrofit Technology (“BART”) review, OG&E evaluated the use of SCRs for the control of NO_x in order to meet compliance with the Regional Haze BART requirements. As discussed by Witness Burch, “this technology was not selected as BART due to its very high NO_x removal cost compared to LNB/OFA.”³² Both ODEQ and EPA agreed with this BART determination.

Q. **Are there any existing regulations that would require the installation of a SCR at Sooner?**

A. No. There are no regulations in effect that require the installation of SCRs, including the recently reinstated CSAPR which OG&E projects it can comply with, without installation of new control equipment beyond the Environmental Compliance Plan.

Q. **Would the recently proposed ozone rule drive the installation of an SCR at Sooner?**

A. No.

³¹ Responsive Testimony of Tyler Comings, page 28, line 21-24 and page 31, lines 14-16, 25-26.

³² Direct Testimony of Witness Burch: Page 6, line 15-16.

1 Q. **Why would the recently proposed ozone rule not drive a SCR at Sooner?**

2 A. Oklahoma is in attainment with the Ozone NAAQS currently in effect. EPA recently
3 proposed to revise this NAAQS,³³ but the proposed rule contains a range of lower
4 standards, one of which is what EPA intends to finalize following public comment. Any
5 such final rule will be subject to litigation and judicial scrutiny. Once the rule is finalized,
6 the ODEQ must then assess whether any portion of the State is not in compliance with the
7 new Ozone NAAQS based on current monitoring data. If a portion of the State is not in
8 compliance with the finalized standard, that area is deemed to be nonattainment and the
9 ODEQ must develop, through an established process, what reductions are needed to bring
10 the area back into attainment status. In developing a plan, the ODEQ conducts an
11 inventory of sources and the cost effectiveness of sought reductions.

12 Based on the final changes to the proposed Ozone NAAQS, it is possible that the
13 Oklahoma City and the Tulsa metro areas will become nonattainment, but the degree of
14 nonattainment and the nature of the impacts will not be known until the standard is final
15 and the state develops its implementation plan. Final compliance with the new Ozone
16 NAAQS and the ultimate plan by the State could be required as early as 2020. It is also
17 unknown if non-metro areas in Oklahoma (like Noble County where the Sooner Power
18 Plant is located) will be deemed to be in non-attainment. I believe that it is unlikely that
19 Noble County will become nonattainment.

20 Furthermore, the implementation of the Environmental Compliance Plan that is
21 subject of this proceeding will result in a 50% reduction of NO_x emissions from Sooner by
22 2017 and significant reduction of emissions from the Muskogee facility with the
23 conversion of two baseload coal units to natural gas. OG&E's Environmental Compliance
24 Plan in addition to the reductions being made by the other utilities better positions the
25 State to address future ozone NAAQS requirements.

³³ 79 FR 75233; National Ambient Air Quality Standards for Ozone; Proposed Rule, Dec. 17, 2014. Available at <https://www.federalregister.gov/articles/2014/12/17/2014-28674/national-ambient-air-quality-standards-for-ozone>

1 Q. **Do the NSR lawsuits cited by Sierra Club Witness Comings make SCRs any more**
2 **likely?**

3 A. As explained above, the NSR lawsuits referred to by Sierra Club Witness Comings have
4 been dismissed and, from OG&E's perspective, the dismissals indicate that the cases are
5 flawed. The NSR claims in the Eastern District were dismissed on the grounds that the
6 lawsuit was filed after the statute of limitations had run while the NSR claims in the
7 Western District were dismissed for lack of subject matter jurisdiction along with a
8 finding by Judge DeGiusti that, even if the court had jurisdiction, he would decline to
9 exercise jurisdiction over the case. For these reasons, these lawsuits should not be
10 considered a driver for SCR installations.

11
12 **MUSTANG**

13 Q. **Did any Responsive Witness discuss the benefit of using the netting of emissions from**
14 **the existing Mustang facility to site the new combustion turbines?**

15 A. No. This benefit was ignored by the various intervenors that filed Responsive Testimony.

16
17 Q. **Please explain why this benefits customers.**

18 A. It is becoming increasingly difficult to site new generation in or near metropolitan areas as
19 environmental regulations become more restrictive and metro areas continue to grow.
20 Utilizing emissions-netting in the permitting process, provides certainty in the ability to
21 obtain a permit for a new facility and in a timely manner, even as the area faces the
22 potential of Ozone non-attainment.

23 Emissions netting simplifies the process to obtain a permit from the ODEQ as a
24 no-net-increase in emissions, by allowing the emissions from the new units to be offset by
25 that of the agency-approved and permitted historic operations thereby creating no new
26 environmental impact to the air shed that would require further evaluation by the ODEQ.
27 At the same time, newer, more efficient generation units are able to be installed at the site,
28 in place of the older, less efficient units and essentially eliminate the risk of not being able
29 to permit generation in the Oklahoma City metro area.

30

1 Q. **Is there risk to permitting incremental new generation in the Oklahoma City metro**
2 **area?**

3 A. Yes. Incremental new generation that is not authorized through a netting process would
4 likely have to obtain a major source construction permit under the Clean Air Act. Major
5 source construction permits have requirements for control technology, impacts modeling
6 and public participation that add expense and time to the project.

7 The additional time and expense associated with a major source construction
8 permit could affect the viability of the project at the Mustang site. The time and expense
9 for a major source construction permit become even more significant if the Oklahoma City
10 metro area is designated as nonattainment for ozone. As previously discussed, a
11 nonattainment designation likely would not extend (at least initially) to areas outside of
12 the metro area, meaning that incremental new generation would be less costly to construct
13 outside of the metro area in that circumstance.

14

15 Q. **When could these more stringent requirements take effect?**

16 A. The EPA is required by consent order to finalize the proposed ozone NAAQS rule by
17 October 1, 2015. The EPA must then finalize nonattainment areas by 2017 and require
18 compliance with State Implementation Plans as early as 2020. The permitting
19 requirements would begin in 2017. As stated above, those new onerous requirements
20 would not apply to permits sought under netting.

21

22 Q. **Please summarize the benefits of using netting to locate the CTs at Mustang.**

23 A. As explained in the Direct Testimony of OG&E Witness Burch, OG&E currently can use
24 a finite, historical emissions window to site up to 400 MW of new, more efficient capacity
25 at Mustang, with no incremental impact to the Oklahoma City metro area air shed. That
26 is, OG&E can use this historical emissions window as long as the new units total
27 emissions fit within the level of those finite, historical emissions. This emissions window
28 will begin to close (*i.e.*, lessening the amount of new capacity able to be sited at Mustang)
29 if OG&E does not file a complete permit application by August 2015.

PERMITTING UPDATE

1

2 Q. **Please describe the current status of the permits required for the Environmental**
3 **Plan.**

4 A. The ODEQ has issued final construction permits for the installation of Activated Carbon
5 systems at all five OG&E coal units (Muskogee 4, 5 and 6 and Sooner 1 & 2) as well as
6 the final construction permit for the circulating dry scrubber at Sooner. There were no
7 comments filed in opposition to these permits and no public comments received during the
8 public meeting held for the scrubber permits.

9

10 Q. **Does this conclude your testimony?**

11 A. Yes, it does.