From: megan.berge@bakerbotts.com
Sent: Thursday, December 22, 2016 4:15 PM
To: Mccarthy, Gina
Cc: A-AND-R-DOCKET; Leslie.Couvillion@BakerBotts.com
Subject: EPA–HQ–OAR–2015–0500; Petition for Reconsideration of the Cross-State Air Pollution Update Rule
Attachments: OK Cogen CSAPR Update Petition for Reconsideration.PDF

Administrator McCarthy,

Attached please find a petition by Oklahoma Cogeneration, LLC for reconsideration of the final rule entitled "Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS," Docket No. EPA-HQ-OAR-2015-0500, 81 Fed. Reg. 74,504 (Oct. 26, 2016). A hard copy of the petition with enclosures was transmitted to EPA, today, by Federal Express.

Best,
Megan Berge

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1299 Pennsylvania Ave, NW
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December 22, 2016

VIA ELECTRONIC SUBMISSION AND HAND DELIVERY

Office of the Administrator (Mail Code 1101A)
US Environmental Protection Agency
1200 Pennsylvania Avenue NW, Room WJCN 3000
Washington DC 20460

RE: Request for Reconsideration of EPA's "Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS" (EPA Docket No. EPA-HQ-OAR-2015-0500)

Dear Administrator:

Pursuant to Section 307(d)(7)(B) of the Clean Air Act, Oklahoma Cogeneration, LLC ("OK Cogen") respectfully petitions the U.S. Environmental Protection Agency ("EPA" or "Agency") for reconsideration of the final rule entitled "*Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS*," 81 Fed. Reg. 74,504 (Oct. 26, 2016) ("CSAPR Update Rule" or "Final Rule"). Specifically, OK Cogen requests that EPA recalculate unit-level allocations of seasonal nitrous oxide ("NOx") allowances for 2017 and beyond for OK Cogen's Oklahoma Cogeneration LLC Unit CC01 (Boiler ID CC01; ORIS ID 50558; CAMD Unit ID 90991) using data-substitution called for by the Final Rule. EPA's current calculations rely on a single (highly unrepresentative) year of data for Unit CC01, resulting in a significant allowance shortfall. This outcome contradicts EPA's own stated methodology and policy goals.

OK Cogen is a small (two full-time employees, with 18 operational personnel) electric service company located in Oklahoma City, Oklahoma. The company is committed to environmental compliance and efficient NOx emissions controls. OK Cogen operates a single, independent 120 MW (nominal) natural gas-fired combined-cycle and topping-cycle cogeneration power plant ("Unit CC01").[1] The facility consists of a natural gas-fired combustion turbine ("gas turbine"), a supplementary fired Heat Recovery Steam Generator that can receive additional energy from a natural gas-fired duct burner ("duct burner"), and a single automated extraction condensing steam turbine generator ("steam turbine").[2] As a direct means of controlling NOx

[1] Formerly known as the PowerSmith Cogeneration Project.

[2] The unit's normal load (from gas and steam turbine electricity production) is 107 MW. The duct burner is used to make maximum load, and is used infrequently (only when called upon for dispatch by the Southwest Power Pool). In 2016, the duct burner was called upon twice, for a total of 15 hours of run time.

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emissions, this system injects steam into the gas turbine combustion chamber. The combined exhaust gases exit through a common main stack. The electricity is sold under a long term Power Purchase Agreement to a local electric utility company that serves customers in Oklahoma and Western Arkansas. Unit CC01 has been in operation since 1989. It was the first natural gas-fired combined-cycle cogeneration plant built and operated in Oklahoma.

BACKGROUND

CSAPR addresses the "good neighbor" provision of the Clean Air Act, which prohibits sources within each state "from emitting any air pollutant in an amount which will . . . contribute significantly" to any other state's nonattainment, or interference with maintenance of, any National Ambient Air Quality Standard ("NAAQS"). 42 U.S.C. § 7410(a)(2)(D)(i)(I). EPA defines "significant contribution" by reference to (1) a state's "linkage" to downwind receptors (i.e., emissions of approximately 1 percent of compliant ambient levels) and (2) the ability of the state to achieve emission reductions at the relevant cost threshold.[3] CSAPR achieves emissions reductions through annual and ozone season emissions trading programs.

EPA finalized CSAPR in 2011 to address three NAAQS, including the 1997 ozone NAAQS. 76 Fed. Reg. 48,208 (Aug. 8, 2011) ("Original CSAPR Rule" or "CSAPR"). In December 2011, EPA finalized a supplemental CSAPR rule that added several states, including Oklahoma, to the ozone season NOx program. 76 Fed. Reg. 80,760 (Dec. 27, 2011) ("Supplemental CSAPR Rule"). Various groups challenged CSAPR, resulting in a stay of the rule. *See EME Homer City Generation, L.P. v. EPA*, No. 11-1302 (D.C. Cir. Dec. 30, 2011). CSAPR and Supplemental CSAPR Rule requirements and deadlines were effectively tolled pending resolution of the litigation. *See* 79 Fed. Reg. 71,663 (Dec. 3, 2014). In April 2014, the U.S. Supreme Court generally upheld the rule. *See EPA v. EME Homer City Generation LP*, 134 S. Ct. 1584 (2014). The stay was lifted in October 2014. *See EME Homer City*, No. 11-1302 (Oct. 23, 2014). Phase 1 of the CSAPR ozone season program began in May 2015.

EPA published the CSAPR Update Rule in October 2016 to address good neighbor provisions with respect to the 2008 ozone NAAQS. The Agency had published a proposed rule about 10 months earlier. *See* 80 Fed. Reg. 75,706 (Dec. 3, 2015) ("Proposed CSAPR Update Rule" or "Proposed Rule"). In the Final Rule, EPA found that 22 eastern states, including Oklahoma, had failed to submit a state implementation plan to meet their good neighbor obligations. For these 22 states, EPA issued federal implementation plans that generally update existing CSAPR NOx ozone season emission budgets, and that implement these budgets through modifications to the existing CSAPR NOx ozone season allowance trading program. The Final Rule addresses only emission reductions from electric generating units ("EGUs"). Implementation will start in the 2017 ozone season (May - September 2017).

EPA made several significant changes between the Proposed and Final CSAPR Update Rules. Most notably for OK Cogen:

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[3] EPA uses the Integrated Planning Model v.5.15 ("IPM") to predict how many emissions reductions are available at the relevant cost thresholds. IPM is a dynamic, linear programming model used to project power sector behavior under current and future conditions. IPM's primary objective is to provide estimates of least-cost capacity expansions, electricity dispatch, and emission control strategies while meeting energy demand and environmental, transmission, dispatch, and reliability constraints. *See* https://www.icf.com/solutions-and-apps/ipm.

(1) **In calculating allocations for Oklahoma units in the Final Rule, EPA did not use data-substitution.** Both the Proposed and Final Rules call for EPA to use up to *five* years of historic heat input data and up to *eight* years of historic NOx emissions data.[4] To accomplish this, both rules also call for EPA to use a data-substitution method (so that if data is not available from EPA's preferred data source for a given year, EPA can pull equivalent data from an alternative source).[5] EPA followed this method in the Proposed Rule.[6] But in the Final Rule, EPA switched to using a *single year of historic baseline data without any data-substitution* for Unit CC01. *See* EPA, Final Rule, *Unit-Level Allocations and Underlying Data for the CSAPR Update for the 2008 Ozone NAAQS* ("Final Allocation Spreadsheet TSD"). Unit CC01's allowance allocation ***dropped more than 70 percent*** from the Proposed Rule to the Final Rule, from 40 allowances to 12 allowances.

(2) **In calculating Oklahoma's budget in the Final Rule, EPA used a revised formula with new inputs.** Both the Proposed and Final Rules call for EPA to set state budgets as the minimum of either (1) historic emissions[7] or (2) IPM-predicted 2017 emissions. In the Final Rule, EPA introduced new variables to the formula for calculating IPM-predicted 2017 emissions, including (1) a NOx emission rate "delta" (equal to the difference between an IPM 2017 Base Case and IPM 2017 Policy Case emission rate); and (2) an "adjusted" historic emission rate, based on a newly-developed adjusted historic dataset. With these new variables, EPA added several steps to the calculation and increased its complexity. *See* 81 Fed. Reg. at 74,547-48. Due in large part to these changes, Oklahoma's budget ***dropped about 28 percent*** from the Proposed Rule to the Final Rule, from 16,215 tons to 11,641 tons, more than any other state.[8] Oklahoma's reduced state budget contributed to Unit CC01's reduced allowance allocation.

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[4] To calculate allocations, EPA first "uses the average of the three highest years of heat input data out of a consecutive five-year period to establish the heat input baseline for each unit," and calculates initial heat input-based allowance allocations based on each unit's percentage share of the state's total ozone season heat input. 81 Fed. Reg. at 74,564. Next, EPA "constrains the unit-level allocations so as not to exceed the maximum historical baseline emissions, calculated as the highest year of emissions out of a consecutive eight-year period." *Id.* This methodology "bases a unit's allocation on the unit's historical heat input but limits any unit's allocation to its historical maximum emissions." EPA, *Allowance Allocation Final Rule TSD* at 6 (Aug. 2016) ("Allocation TSD"), available at https://www3.epa.gov/airmarkets/CSAPRU/CSAPR%20Allowance%20Allocations%20Final%20Rule%20TSD.PDF.

[5] The two data sources EPA says it will look to are: (1) EPA's Clean Air Markets Division ("CAMD"), for years for which it is available; and (2) the U.S. Energy Information Administration ("EIA"), for years for which CAMD data is unavailable.

[6] With some caveats: EPA did not include 2014 EIA data because it was unavailable at the time the Proposed Rule was published. Thus, for units without 2014 CAMD data, EPA did not "backfill" or substitute any EIA data. Additionally, EPA did not include data for years for which a unit was not yet operating (e.g., if a unit that began operating in 2012, EPA used available 2012-2014 heat input and NOx emissions data). *See* EPA, Proposed Rule, *Unit Level Allocations and Underlying Data for the CSAPR for the 2008 Ozone NAAQS* ("Proposed Allocation Spreadsheet TSD"). Excel file available at https://www.epa.gov/airmarkets/proposed-cross-state-air-pollution-update-rule. Further, as discussed below, EPA inappropriately relied on annual, not monthly, EIA data and made arbitrary downward adjustments to reported EIA data for cogeneration and combined-cycle units. EPA should use monthly, reported (i.e., unadjusted) EIA data in the revised Final Rule allocations.

[7] Based on a baseline year of 2014 in the Proposed Rule and 2015 in the Final Rule.

[8] Under the Proposed Rule formula, Oklahoma's IPM-predicted 2017 emissions were *higher* than historic emissions. Thus, Oklahoma's budget was set equal to historic (2014) emissions. Under the revised Final Rule formula, Oklahoma's IPM-predicted 2017 emissions were *lower* than historic (2015) emissions. Thus, Oklahoma's budget was set equal to these lower IPM-predicted emissions. This change was not driven solely by the switch from a 2014 to 2015 historic baseline. The primary driver appears to be the new IPM-derived emission rate "delta." Oklahoma's IPM 2017 Base Case emission rate is unrealistically and arbitrarily high—

REQUEST FOR RECONSIDERATION

I. Requested Technical Correction

A. EPA Should Correct Errors In OK Cogen's Allowance Allocations

EPA's unit-level allowance allocation calculations in the Final Rule are arbitrary and capricious as applied to OK Cogen's Unit CC01. EPA's failure to perform EIA data-substitution—and use of a single historic baseline year for some units—goes against the Final Rule's own prescribed methodology. It also puts units on unequal footing: some units, like Unit CC01, received allocations based on one year of operation, while other units received allocations based on multiple years of operation. This effectively penalizes units, like Unit CC01, that were not required to report to CAMD in prior years. OK Cogen is especially disadvantaged because Unit CC01's single year of available CAMD data (2015) is highly unrepresentative of the unit's historic operations.

EPA must recalculate OK Cogen's allocations for Unit CC01 to avoid this unfair and arbitrary outcome. Specifically, EPA must use (1) five years of reported heat input data (2011-2015) and eight years of reported NOx emissions data (2008-2015); and (2) EIA data-substitution, where CAMD data is unavailable. Therefore, OK Cogen's allocations for Unit CC01 should be based on 2011-2014 EIA and 2015 CAMD heat input data and 2008-2014 EIA and 2015 CAMD NOx emissions data. EPA should use monthly (not annual), reported (not adjusted) data. Corrected calculations,[9] summarized in Table 1, show that OK Cogen likely is entitled to 62 total allowances compared to 12 allowances under the current calculation: ***an increase of 50 allowances, or more than 500%***. *See* Appendix A (CD-Rom Enclosure) for detailed calculations.[10]

Table 1. Comparing OK Cogen's Unit CC01's Average Heat Input, NOx Emissions Maximum Historic Baseline, and Final Allowance Allocations Under the Final Rule and a Corrected Rule.

	Final Rule (No EIA Data)	Corrected Rule (Monthly Reported EIA Data)	Difference
3-Year Average Heat Input	**284,731 MMBtu** (based on 2015)	**1,478,244 MMBtu** (based on 2011-2013)	**1,193,513 MMBtu**
NOx Emissions Maximum Historic Baseline	**43 tons** (based on 2015)	**163 tons** (based 2011)	**120 tons**
Final Allocation	**12 tons**	**62 tons**	**50 tons**

significantly higher than Oklahoma's historic actual or adjusted 2015 emission rates. As a result, Oklahoma's NOx emission rate "delta" also is arbitrarily high. This means the Final Rule formula over-estimates how many emissions reductions are available in the state. This error carries through the entire calculation, resulting in final IPM-predicted 2017 emissions that are unrealistically low. These arbitrarily low model-predicted rates became the basis for Oklahoma's final budget. *Compare* EPA, Proposed Rule, *Appendix E- Detailed Budget Calculations*, Excel file available at https://www.epa.gov/airmarkets/proposed-cross-state-air-pollution-update-rule-ozone-transport-policy-analysis-tsd *with* EPA, Final Rule, *Appendix E: Budget Calculations*, Excel file available at https://www.epa.gov/airmarkets/final-cross-state-air-pollution-rule-update.

[9] The corrected calculations are based on EIA heat input data from the 923 Report Form and as published on the EIA website at http://www.eia.gov/electricity/data/browser/#/plant/50558/?freq=M&pin=. *See* Appendix B (CD-Rom Enclosure).

[10] At minimum, technical corrections using annual, adjusted EIA data (i.e., the EIA data EPA used in the Proposed Rule) likely still would raise OK Cogen's allocation.

B. The Requested Corrections Are Supported By The Final Rule

1. The Final Rule Calls for Multiple Historic Baseline Years

OK Cogen's request to EPA is straightforward: simply do what you said you would do (but did not actually do). The Final Rule calls for using a five-year (2011-2015) historic baseline period for heat input data, and an eight-year (2008-2015) historic baseline period for NOx emissions data. *See* Allocation TSD at 6-7. EPA's rationale for using multiple historic baseline years is sound: it helps ensure that outlier data from a single unrepresentative year (e.g., where heat input or NOx emissions levels were significantly lower than usual) does not skew the calculations.[11] As EPA recognizes, the power sector is susceptible to a range of variables affecting fuel use and emissions, including equipment failures, changing market forces, and weather patterns. *See* 81 Fed. Reg. at 74,566. One year of historic data cannot capture the inherent variability in a unit's operations from year to year, or ozone season to ozone season.

Nonetheless, EPA set Unit CC01's allocations based *solely on 2015* operations. 2015 was a highly unrepresentative year for the unit because of unexpected mechanical equipment failures.[12] ***The unit was out-of-service for repairs during most of the 2015 ozone season (from May 5 to July 31, 2015)***. As a result, fuel usage/heat input and NOx emissions for the 2015 ozone season were uncharacteristically low.[13] Indeed, the unit typically dispatches *more* during the ozone season than other times of the year. For the 2016 ozone season, Unit CC01's dispatch rate was higher, much closer to historic levels. OK Cogen believes this trend of higher dispatch will continue. Market forces are likely to drive more and more dispatch of natural gas-fired units as the coal-fired units prevalent in the region phase out of service.

EPA's reliance on solely 2015 CAMD data to establish the Unit CC01's allocations is arbitrary and capricious. It results in the exact outcome EPA tried to avoid through a multi-year allocation methodology, unfairly penalizing Unit CC01.

2. The Final Rule Calls for Data Substitution

Again, the requested corrections simply ask EPA to do what the Agency said it would do. EPA's prescribed methodology calls for using historic data from *up to two* different sources: (1) CAMD, if available for a given year; and (2) EIA, if CAMD data is unavailable for a given year. *See* Allocation TSD at 6-7. Indeed, for many units EPA *must* look to a historic data source other than CAMD to be able to use the multi-year baseline periods called for in the Final Rule. Prior to Phase I of the CSAPR program in 2015, many units, like Unit CC01, had no obligation to report data to CAMD under any EPA program. Unit CC01 has only a single year

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[11] *See* Allocation TSD at 7. EPA chose a multi-year heat input baseline because "[s]electing the three highest, non-zero ozone season heat input values within the five-year baseline reduces the likelihood that any particular single year's operations (which might be negatively affected by outages or other unusual events) determine a unit's allocation." *Id.* EPA chose a multi-year NOx emissions baseline "in order to capture the unit-level emissions before and after the promulgation of the original CSAPR. *Id.*

[12] While OK Cogen has an aggressive preventative maintenance program, unexpected equipment maintenance is a part of all power plant's operations.

[13] In 2014, Unit CC01 also experienced multiple ozone season outages due to mechanical equipment failures. The unit did not experience similar ozone season outages in 2011-2013.

of reported CAMD data (2015), but has multiple years of EIA data (to before 2008, the earliest relevant baseline year under the Final Rule). Under such circumstances, EPA's methodology calls for the Agency to use a combination of 2015 CAMD data and 2008-2014 EIA data. It is arbitrary and capricious for EPA not to apply this methodology to Unit CC01.

EPA also states it will look to publicly available, *reported* EIA data.[14] EPA does not state, in either the Final Rule or the Allocation TSD, that it will adjust EIA data from what is reported directly on the EIA forms.[15] EPA therefore should use *monthly (not annual), reported (not adjusted for combined-cycle or cogeneration units)* EIA data whenever EIA data is called for in allocation calculations. Monthly data is better than annual data with a crude 5/12 multiplier because monthly data more accurately reflects actual ozone season operations.[16] Reported heat input data is better than downward-adjusted heat input data for cogeneration and combined-cycle units because reported data more accurately reflects these units' actual fuel use, as well as their highly efficient processes.[17] Using monthly, reported EIA data also is consistent with EPA's treatment of CAMD data, which EPA did not adjust when incorporating it into the Final Rule's current allocation calculations. Treating EIA and CAMD data differently would be arbitrary and capricious.

C. EPA Should Issue the Technical Corrections Through a Direct Final Rule

EPA should issue the requested corrections through a direct final rule as an alternative to full notice-and-comment rulemaking.[18] Direct final rules rely on the Administrative Procedure Act's "good cause"

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[14] Specifically, EPA "used historical heat input and emissions data [EIA] forms, 860, 906, 920, and 923. These data are publicly available at http://www.eia.doe.gov/cneaf/electricity/page/data.html." Allocation TSD at 6.

[15] In the Proposed Rule, EPA appears to have altered OK Cogen's reported EIA data for Unit CC01 in two ways: (1) instead of looking at *monthly* data for ozone season months, EPA took *annual* data and multiplied it by 5/12 to estimate ozone season operations (because the ozone season comprises 5 months out of the year); and (2) instead of using total reported heat input values, EPA applied a downward "proportional nameplate capacity adjustment" to account for the fact that Unit CC01 is a combined-cyclele unit with both a gas turbine and a steam turbine that produce electricity (basically, EPA multiplied the gas turbine's share of total nameplate capacity (~59 percent) by total heat input, thereby "discounting" the total heat input by about 41 percent). Email correspondence with EPA (Nov. 7, 2016) and EPA contractors (Nov. 21, 2016). Both of these data manipulations are inappropriate. EPA did not apply either of these changes to OK Cogen's EIA ozone season data in the Original CSAPR or Supplemental CSAPR Rules. Instead, EPA historically has used reported, monthly EIA data—as it should again here.

[16] The 5/12 ozone season multiplier incorrectly assumes that Unit CC01 operates more or less the same during all 12 months of the year. In fact, Unit CC01 operates *significantly more* during the ozone season because it is a highly-efficient natural gas-fired unit that is called on during peak periods of electricity demand, which often coincide with ozone season summer months. Further, monthly EIA data for May-September for 2008-2014 is available for Unit CC01. There is no good reason not to use it.

[17] The "proportional nameplate capacity adjustment" for cogeneration and combined cycle units misunderstands how these units operate and punishes these units for being efficient. At a typical combined-cycle plant like Unit CC01, waste heat (exhaust) from the gas turbine produces steam that powers a steam turbine to generate extra electricity. *All* fuel consumed in combined-cycle units is therefore used in electricity generation: fuel is combusted in the gas turbine to either produce power or produce steam, which produces power. The adjustment ignores this fact and underestimates how much of the unit's heat input goes toward electricity production. Therefore, the adjustment punishes units for employing a more efficient process that reuses gas turbine exhaust to produce steam and more electricity, rather than just venting it off.

[18] A direct final rule is "a rule that is issued in final form, without prior notice and comment, that becomes effective on a particular date unless adverse comment is submitted within a specified period of time." EPA Office of General Counsel, *Direct Final Rulemaking Guidance for EPA Rule Writers*, Attachment 1, § 2 (1998). Available at

exemption from notice-and-comment rulemaking,[19] while giving the Agency "the benefit of any public input that may unexpectedly surface." Direct Final Rulemaking Guidance at § 2 (citation omitted). EPA uses direct final rules for "noncontroversial rules where [the Agency does not] expect adverse comment," including routine or minor actions. *Id.* at §§ 4, 6. EPA previously has issued direct final rules under the CSAPR program. *See, e.g., Revisions to Federal Implementation Plans To Reduce Interstate Transport of Fine Particulate Matter and Ozone*, 77 Fed. Reg. 10,342 (Feb. 21, 2012). Here, the corrections to EPA's allocation calculations for Unit CC01 are a non-controversial, minor action unlikely to attract adverse comment because they (1) would affect only a subset of units within a single state; and (2) are necessary to correct clear technical errors in EPA's application of the Final Rule's allocation methodology.

Further, time is of the essence. A direct final rule generally is a more efficient procedural mechanism than notice-and-comment rulemaking. The 2017 ozone season begins in just over five months. OK Cogen needs to get the correct amount of allowances on the books for Unit CC01 as soon as possible in order to plan, and carry out, its compliance strategy for the 2017 ozone season.

II. Reconsideration is Required by the Clean Air Act

A. Legal Standard

The Clean Air Act requires that EPA grant reconsideration of a final rule when a petitioner raising an objection can show that: (1) it was impracticable to raise the relevant objections during the comment period or the grounds for such objection arose after the period for public comment; and (2) the objection is of central relevance to the outcome of the rule. 42 U.S.C. § 7607(d)(7)(B). In such a situation, reconsideration is mandatory: EPA "*shall* convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed." *Id.* (emphasis added).

The notice-and-comment requirements of the Clean Air Act and the Administrative Procedure Act further require that EPA's "proposed rule and its final rule . . . differ only insofar as the latter is a 'logical outgrowth' of the former." *Envtl. Integrity Project v. EPA*, 425 F.3d 992, 996 (D.C. Cir. 2005). A "final rule is a 'logical outgrowth' of a proposed rule only if interested parties should have anticipated that the change was possible, and thus reasonably should have filed their comments on the subject during the notice-and-comment period." *Id.* at 998. The "test is whether a new round of notice and comment would provide the first opportunity for interested parties to offer comments that could persuade the agency to modify its rule." *Id.* at 996.

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https://yosemite.epa.gov/oaqps/rdms.nsf/591caf4ab155e210852566de00539f57/c92ad1453ad5de6885256728006a0f30!OpenDocument ("Direct Final Rulemaking Guidance"). In conjunction with a direct final rule, EPA's typical practice is to simultaneously publish a separate, parallel proposed rule. If EPA receives significant adverse comments on the direct final rule, the Agency will withdraw the direct final rule and address the public comments in a subsequent final rule based on the parallel proposed rule. *Id.* at § 4.

[19] 5 U.S.C. § 553(b)(3)(B) (Section 553's notice-and-comment requirement does not apply "when the agency for good cause finds . . . that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest.").

B. Failure to Comply with Notice and Comment Requirements

The grounds for OK Cogen's objection arose after the public comment period. Before the Final Rule was issued, OK Cogen could not have expected or anticipated that EPA would set Unit CC01's allocations based on a *single* historic baseline year and *only CAMD* data. Both the Proposed and Final Rules call for EPA to set unit allocations using multiple historic baseline years[20] and EIA data-substitution. EPA did this in the Proposed Rule, but not in the Final Rule. What EPA did in the Final Rule looks like a clear technical error. It would be impracticable, if not impossible, for OK Cogen to have anticipated and submitted comment on an error that EPA *had not yet committed* during the public comment period, but committed for the first time in the Final Rule.

OK Cogen therefore had no meaningful opportunity to comment on the final allocations. EPA did not provide notice of or seek comment on the possibility of switching from *multiple* to *single* historic baseline years, or from using *both CAMD and EIA data* to *only CAMD* data. Had EPA done so, OK Cogen would have submitted comments that these changes would arbitrarily and unfairly penalize Unit CC01. As it stands, OK Cogen was caught by surprise by the new unit-level allocation data inputs. EPA may not "use the rulemaking process to pull a surprise switcheroo on regulated entities." *Envtl. Integrity Project*, 425 F.3d at 998.

In yet another "surprise switcheroo," OK Cogen was stunned by the cut in Oklahoma's budget from the Proposed to the Final Rule—*the biggest reduction of any state*. This reduction resulted largely from the significant revisions EPA made to its formula for calculating model-predicted statewide emissions. Because state budgets dictate the size of the available allowance "pool" for units within the state, the drop in Oklahoma's budget contributed to the drop in OK Cogen's allocations under the Final Rule. Had EPA provided notice of its plan to drastically reduce Oklahoma's budget, OK Cogen would have submitted comments explaining how the revised formula significantly overestimates the amount of emissions reductions achievable in the state and results in an overly stringent budget.

OK Cogen's objection also is of central relevance to the outcome of the rule. EPA's data errors have left OK Cogen with a major, unexpected allowance shortfall for the 2017 ozone season. Correcting these errors is critical to OK Cogen's ability to plan for and achieve compliance with the CSAPR Update Rule, especially given the extremely near-term compliance timeframe for the 2017 ozone season. Correcting these errors also would provide a fairer and more representative distribution of allowances within Oklahoma, allowing for more efficient compliance on a state-wide level. Compliance feasibility and efficiency are central to the outcome of the CSAPR Update Rule.

CONCLUSION

In summary, OK Cogen requests that EPA reconsider the CSAPR Update Rule. As described above, EPA must recalculate the allowance allocations for OK Cogen's Unit CC01 using a corrected methodology that is based on multiple historic baseline years (not just one year) and data-substitution using a combination of

[20] The only difference between the Proposed and Final Rule methodologies was a one-year shift in the relevant baseline periods. Because 2015 data was not yet available, the Proposed Rule calculated allowance allocations based on a 2010-2014 heat input baseline period and a 2007-2014 NOx emissions baseline period. The Final Rule uses a 2011-2015 heat input baseline period and a 2008-2015 NOx emissions baseline period. *See* Allocation TSD at 6.

CAMD and EIA data (not just CAMD data). EPA should use monthly, reported (unadjusted) data for these calculations. EPA should issue these technical corrections through a direct final rule because they are noncontroversial and are needed on an extremely short time frame.

Sincerely,

James R. Beers
LLC Managing Member

Enclosures (CD-Rom):

Appendix A: Revised 2017 CSAPR Update Allowance Allocation Calculations for Oklahoma Cogeneration LLC

Appendix B: Published EIA Data for Oklahoma Cogeneration LLC 2008-2014

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Appendices

Along with an electronic submission of this petition, OK Cogen is supplying EPA with a CD-Rom containing the two Appendices (Appendix A and B). The Appendices are Excel datasheets and workbooks demonstrating the calculations described in this petition. The CD-Rom contains both a "locked" (i.e., password-protected, read-only) version and an "unlocked" courtesy working copy of each file. Appendix A-1 is a modification of EPA's Final Rule Allocation Spreadsheet TSD. Detailed revised calculations for the reapportionment analysis are contained in Columns AB-AI.

Attachment A-1. Revised 2017 CSAPR Update Allowance Allocation Calculations Using Published EIA Data and ODEQ Accepted Emissions from Attachment A-2 for Oklahoma Cogeneration

					Step 1					Steps 2 & 3	Step 4	Step 5	Step 6		Step 7								Step 8	Steps 9 & 10	Data Flags	Reapportionment Analysis - Revised Calculations						
Plant Name	State	ORIS ID	Boiler ID	CAMD Unit ID	2011 Ozone Season Heat Input (mmBtu)	2012 Ozone Season Heat Input (mmBtu)	2013 Ozone Season Heat Input (mmBtu)	2014 Ozone Season Heat Input (mmBtu)	2015 Ozone Season Heat Input (mmBtu)	Average of 3 Highest Non-Zero Ozone Season Heat Inputs from 2011 to 2015 (mmBtu)	State Level Summation of Unit Level Three Year Average Ozone Season Heat Input (mmBtu)	Unit 's Percentage Share of State's Ozone Season Heat Input	Ozone Season NO_X 2017 State Budget for Existing Units (tons)	Initial Heat Input Based 2017 Ozone Season NO_X Allocation (tons)	2008 Ozone Season NO_X Emissions (tons)	2009 Ozone Season NO_X Emissions (tons)	2010 Ozone Season NO_X Emissions (tons)	2011 Ozone Season NO_X Emissions (tons)	2012 Ozone Season NO_X Emissions (tons)	2013 Ozone Season NO_X Emissions (tons)	2014 Ozone Season NO_X Emissions (tons)	2015 Ozone Season NO_X Emissions (tons)	Ozone Season NO_X Maximum Historic Baseline (tons)	Final Transport Rule Unit Level NO_X Ozone Season Allocation 2017 (tons)	EIA Data Substitution	Calculate X - O to determine if reapportionment is applied.	If AB = (+), then include the heat input for each source to determine reapportionment	For reapportionment if O < X (portion of max heat rate for past 5 years is less than maximum emission rate for past 8 years)			Calculated Allocations - Revised for OK Cogen	% Diff of EPA All. And Calc All.
Calculation										Average of three highest non-zero values in columns F - J	Sum column K values to get State level totals	Column K divided by column L		Column M x column N									Highest value of columns P - W	(Lesser of columns X and O + reapportionment if O < X		If (-), then O > X and no reapportionment	If (+), Heat Input (MMBtu)	Fraction of Total Heat Input	Min of X,O	Reapportionment		
AES Shady Point	Oklahoma	10671	1A	90961					3,069,468	3,069,468	341,045,302	0.009000	11,408	103								198	198	128		96	3,069,468	0.01288	103	25.10	127.78	0.17
AES Shady Point	Oklahoma	10671	1B	90962					3,098,716	3,098,716	341,045,302	0.009086	11,408	104								203	203	130		99	3,098,716	0.01300	104	25.34	129.00	0.77
AES Shady Point	Oklahoma	10671	2A	90963					2,995,953	2,995,953	341,045,302	0.008785	11,408	100								206	206	125		106	2,995,953	0.01257	100	24.50	124.72	0.23
AES Shady Point	Oklahoma	10671	2B	90964					2,963,255	2,963,255	341,045,302	0.008689	11,408	99								205	205	124		106	2,963,255	0.01243	99	24.23	123.36	0.52
Anadarko	Oklahoma	3006	3	2028	133,468	150,086	12,801	3,316	2,208	98,785	341,045,302	0.000290	11,408	3	10	0	0	17	20	1	0	0	20	4		17	98,785	0.00041	3	0.81	4.11	-2.81
Anadarko	Oklahoma	3006	7	8326	4,542	7,815	1,238	74,648	179,235	87,233	341,045,302	0.000256	11,408	3	2	2	1	0	0	0	3	6	6	4		3	87,233	0.00037	3	0.71	3.63	9.21
Anadarko	Oklahoma	3006	8	8328	5,661	8,440	1,829	102,895	287,814	133,050	341,045,302	0.000390	11,408	4	2	2	1	0	0	0	4	11	11	6		7	133,050	0.00056	4	1.09	5.54	7.69
Anadarko	Oklahoma	3006	9	90429	41,507	46,134	26,593	295,179	339,270	226,861	341,045,302	0.000665	11,408	8		0	7	2	2	1	12	12	12	9		4	226,861	0.00095	8	1.86	9.44	-4.93
Anadarko	Oklahoma	3006	10	90430	31,749	46,205	23,001	277,067	360,321	227,864	341,045,302	0.000668	11,408	8		0	7	1	2	1	11	13	13	10		5	227,864	0.00096	8	1.86	9.49	5.14
Anadarko	Oklahoma	3006	11	90431	38,284	43,771	20,674	246,624	356,087	215,494	341,045,302	0.000632	11,408	7		0	6	2	2	1	10	13	13	9		6	215,494	0.00090	7	1.76	8.97	0.32
Anadarko Plant	Oklahoma	3006	4	90966					736,757	736,757	341,045,302	0.002160	11,408	25								9	9	9		-16			9			
Anadarko Plant	Oklahoma	3006	5	90967					1,118,066	1,118,066	341,045,302	0.003278	11,408	37								14	14	14		-24			14			
Anadarko Plant	Oklahoma	3006	6	90968					1,335,829	1,335,829	341,045,302	0.003917	11,408	45								17	17	17		-27			17			
Chouteau Power Plant	Oklahoma	7757	1	3155	1,690,022	2,695,834	1,704,144	1,177,991	2,299,246	2,233,075	341,045,302	0.006548	11,408	75	30	25	29	17	30	17	11	20	30	30		-44			30			
Chouteau Power Plant	Oklahoma	7757	2	3156	1,786,931	2,742,217	2,080,949	1,508,912	1,604,752	2,203,365	341,045,302	0.006461	11,408	74	26	25	36	22	31	21	14	16	36	36		-38			36			
Chouteau Power Plant	Oklahoma	7757	3	90617	1,751,203	2,880,624	2,323,423	1,766,885	2,293,282	2,499,110	341,045,302	0.007328	11,408	84				7	9	8	6	7	9	9		-74			9			
Chouteau Power Plant	Oklahoma	7757	4	90618	2,106,231	2,984,166	2,627,158	1,939,519	2,534,858	2,715,394	341,045,302	0.007962	11,408	91				9	10	8	7	8	10	10		-81			10			
Comanche (8059)	Oklahoma	8059	7251	3452	2,355,466	3,027,044	2,331,456	830,554	400,901	2,571,322	341,045,302	0.007540	11,408	86	613		467	552	875	552	232	101	875	108		789	2,571,322	0.01079	86	21.03	107.04	0.89
Comanche (8059)	Oklahoma	8059	7252	3453	2,036,004	1,118,659	2,376,484	827,743	402,644	1,843,715	341,045,302	0.005406	11,408	62	652	964	701	509	304	524	227	88	964	77		902	1,843,715	0.00773	62	15.08	76.75	0.32
Grand River Dam Authority	Oklahoma	165	1	95	18,403,552	13,685,149	11,137,886	11,098,938	12,995,997	15,028,233	341,045,302	0.044065	11,408	503	2,746	2,631	2,653	3,393	2,734	962	992	1,046	3,393	629		2,890	15,028,233	0.06305	503	122.91	625.61	0.54
Grand River Dam Authority	Oklahoma	165	2	96	18,269,015	16,338,246	15,658,304	14,282,766	11,908,354	16,755,188	341,045,302	0.049129	11,408	560	3,075	3,380	3,235	3,112	3,154	1,339	1,170	906	3,380	701		2,819	16,755,188	0.07029	560	137.03	697.50	0.50
Green Country Energy, LLC	Oklahoma	55146	CTGEN1	4006	3,024,874	4,885,757	3,244,307	3,599,882	4,268,154	4,251,264	341,045,302	0.012465	11,408	142	54	54	57	43	62	39	52	54	62	62		-80			62			
Green Country Energy, LLC	Oklahoma	55146	CTGEN2	4007	3,511,385	5,018,229	3,454,453	3,363,115	4,060,370	4,196,661	341,045,302	0.012305	11,408	140	38	63	47	56	66	44	45	54	66	66		-75			66			
Green Country Energy, LLC	Oklahoma	55146	CTGEN3	4008	2,040,433	4,687,392	3,855,251	3,421,369	4,558,724	4,367,122	341,045,302	0.012805	11,408	146	47	53	49	29	60	43	45	54	60	60		-86			60			
Horseshoe Lake	Oklahoma	2951	6	2000	2,728,199	2,784,078	293,186	1,626,279	981,552	2,379,519	341,045,302	0.006977	11,408	80	327	377	397	351	376	36	200	120	397	100		318	2,379,519	0.00998	80	19.46	99.06	0.94
Horseshoe Lake	Oklahoma	2951	7	2001	4,653,860	3,830,768	2,988,490	2,132,490	335,162	3,824,373	341,045,302	0.011214	11,408	128	201	316	301	365	319	227	183	26	365	160		237	3,824,373	0.01604	128	31.28	159.20	0.50
Horseshoe Lake	Oklahoma	2951	8	2002	4,244,154	6,019,651	3,154,859	1,181,171	909,174	4,472,888	341,045,302	0.013115	11,408	150	94	163	427	270	498	300	159	129	498	187		348	4,472,888	0.01876	150	36.58	186.20	0.43
Horseshoe Lake	Oklahoma	2951	9	2003	185,581	94,721	53,165	311,000	346,428	281,003	341,045,302	0.000824	11,408	9	2	4	2	8	4	2	10	16	16	12		7	281,003	0.00118	9	2.30	11.70	2.52
Horseshoe Lake	Oklahoma	2951	10	1999	168,485	91,273	50,907	319,982	334,326	274,264	341,045,302	0.000804	11,408	9	2	3	10	7	4	2	14	17	17	11		8	274,264	0.00115	9	2.24	11.42	-3.79
Hugo	Oklahoma	6772	1	2908	14,053,803	12,443,868	15,779,223	15,100,853	12,161,799	14,977,960	341,045,302	0.043918	11,408	501	1,438	1,351	1,264	1,289	1,124	1,472	1,465	1,079	1,472	627		971	14,977,960	0.06284	501	122.50	623.52	0.56
McClain Energy Facility	Oklahoma	55457	CT1	4808	4,764,423	5,209,353	3,965,515	3,648,240	5,410,267	5,128,014	341,045,302	0.015036	11,408	172	58	74	69	71	81	59	53	78	81	81		-90			81			
McClain Energy Facility	Oklahoma	55457	CT2	4809	5,355,735	4,911,199	4,389,374	3,776,632	5,193,702	5,153,545	341,045,302	0.015111	11,408	172	61	79	72	74	76	67	56	74	79	79		-93			79			
Mooreland	Oklahoma	3008	1	2029		267,927	22,551	6,087	26,841	105,773	341,045,302	0.000310	11,408	4	11	4	11		49	3	1	7	49	4		45	105,773	0.00044	4	0.87	4.40	-10.08
Mooreland	Oklahoma	3008	2	2030	1,404,730	1,292,673	1,178,776	1,110,082	1,746,617	1,481,340	341,045,302	0.004344	11,408	50	90	128	104	114	106	77	110	173	173	62		123	1,481,340	0.00621	50	12.11	61.67	0.54
Mooreland	Oklahoma	3008	3	2031	1,600,846	1,080,048	653,393	482,996	421,943	1,111,429	341,045,302	0.003259	11,408	37	49	94	138	113	71	41	35	28	138	47		101	1,111,429	0.00466	37	9.09	46.27	1.56
Muskogee	Oklahoma	2952	3	2004							341,045,302	0.000000	11,408	0	175								175			175	0	0.00000	0	0.00	0.00	
Muskogee	Oklahoma	2952	4	2005	14,645,468	14,714,430	11,346,599	14,015,059	407,653	14,458,319	341,045,302	0.042394	11,408	484	2,117	2,453	2,460	2,216	1,991	1,898	2,191	39	2,460	605		1,977	14,458,319	0.06066	484	118.25	601.89	0.51
Muskogee	Oklahoma	2952	5	2006	13,526,094	13,585,714	13,404,319	17,495,094	13,286,089	14,868,967	341,045,302	0.043598	11,408	497	2,728	2,257	2,429	2,212	1,881	2,115	1,290	929	2,728	622		2,230	14,868,967	0.06238	497	121.60	618.98	0.49
Muskogee	Oklahoma	2952	6	2007	15,873,981	15,669,398	13,181,624	7,224,451	11,503,682	14,908,334	341,045,302	0.043714	11,408	499	3,057	2,404	2,509	2,691	2,375	1,839	1,241	1,497	3,057	624		2,558	14,908,334	0.06254	499	121.93	620.62	0.54
Mustang	Oklahoma	2953	1	2008	364,305	202,390	129,585	127,564	67,379	232,093	341,045,302	0.000681	11,408	8	4	15	49	27	15	9	11	8	49	10		41	232,093	0.00097	8	1.90	9.66	3.38
Mustang	Oklahoma	2953	2	2009	421,621	268,951	133,631	180,959	39,379	290,511	341,045,302	0.000852	11,408	10	3	11	38	24	16	8	13	4	38	12		29	290,511	0.00122	10	2.38	12.09	-0.78
Mustang	Oklahoma	2953	3	2010	2,562,029	1,802,439	686,475	290,336	268,649	1,683,648	341,045,302	0.004937	11,408	56	215	142	185	318	271	71	44	38	318	70		262	1,683,648	0.00706	56	13.77	70.09	-0.13
Mustang	Oklahoma	2953	4	2011	4,363,918	3,343,122	2,999,937	817,506	769,131	3,568,992	341,045,302	0.010465	11,408	119	619	491	397	810	618	496	136	138	810	149		691	3,568,992	0.01497	119	29.19	148.57	0.29
Mustang	Oklahoma	2953	5A-1	90979					5,762	5,762	341,045,302	0.000017	11,408	0								2	2	0		2	5,762	0.00002	0	0.05	0.24	
Mustang	Oklahoma	2953	5A-2	90980					5,762	5,762	341,045,302	0.000017	11,408	0								2	2	0		2	5,762	0.00002	0	0.05	0.24	
Mustang	Oklahoma	2953	5B-1	90981					5,126	5,126	341,045,302	0.000015	11,408	0								2	2	0		2	5,126	0.00002	0	0.04	0.21	
Mustang	Oklahoma	2953	5B-2	90982					2,932	2,932	341,045,302	0.000009	11,408	0								1	1	0		1	2,932	0.00001	0	0.02	0.12	
Northeastern	Oklahoma	2963	3302	2018	7,877,877	6,957,295	4,455,656	1,010,287	344,725	6,430,276	341,045,302	0.018855	11,408	215	1,459	906	1,772	1,946	1,717	908	103	34	1,946	269		1,731	6,430,276	0.02698	215	52.59	267.69	0.49
Northeastern	Oklahoma	2963	3313	2019	15,036,138	14,605,962	16,401,728	17,836,754	14,654,299	16,424,873	341,045,302	0.048160	11,408	549	2,390	3,026	2,780	2,939	1,107	1,606	1,403	981	3,026	687		2,477	16,424,873	0.06891	549	134.33	683.75	0.47
Northeastern	Oklahoma	2963	3314	2020	16,360,545	14,565,496	16,167,021	14,092,113	12,901,609	15,697,688	341,045,302	0.046028	11,408	525	2,991	2,933	2,492	3,244	1,098	1,575	1,083	867	3,244	657		2,719	15,697,688	0.06585	525	128.38	653.48	0.54
Northeastern	Oklahoma	2963	3301A	2016	4,537,700	4,891,998	3,802,709	3,314,657	2,544,135	4,410,802	341,045,302	0.012933	11,408	148	74	61	75	88	88	69	64	47	88	88		-59			88			
Northeastern	Oklahoma	2963	3301B	2017	4,718,498	4,522,603	4,368,881	3,096,951	3,079,965	4,536,661	341,045,302	0.013302	11,408	152	85	61	72	73	73	75	53	56	85	85		-67			85			
Oklahoma Cogeneration LLC	Oklahoma	50558	CC01	90991	1,959,370	1,456,596	1,018,766	316,237	284,731	1,478,244	341,045,302	0.004334	11,408	49	126	105	145	163	130	96	29	43	163	12		114	1,478,244	0.00620	49	12.09	61.54	-412.82
Oneta Energy Center	Oklahoma	55225	CTG-1	4187	3,224,014	3,962,017	3,046,024	2,974,408	4,562,330	3,916,120	341,045,302	0.011483	11,408	131	38	46	63	56	65	59	60	82	82	82		-49			82			
Oneta Energy Center	Oklahoma	55225	CTG-2	4188	3,201,389	3,497,852	2,654,787	3,020,684	4,372,871	3,690,704	341,045,302	0.010822	11,408	123	33	49	64	57	62	51	60	80	80	80		-44			80			
Oneta Energy Center	Oklahoma	55225	CTG-3	4189	3,419,843	3,334,069	2,525,902	2,677,617	4,580,192	3,778,035	341,045,302	0.011078	11,408	126	35	55	53	57	60	49	55	74	74	74		-52			74			
Oneta Energy Center	Oklahoma	55225	CTG-4	4190	3,000,646	3,371,770	2,959,107	2,764,798	4,807,111	3,726,509	341,045,302	0.010927	11,408	125	34	62	67	56	63	60	57	83	83	83		-42			83			
Ponca	Oklahoma	762	2	565	20,311	2,014	1,432	0	6,702	9,676	341,045,302	0.000028	11,408	0	0	0	0	2	0	0	0	0	2	0		2	9,676	0.00004	0	0.08	0.40	
Ponca	Oklahoma	762	3	566	378,068	423,107	77,717	200,395	171,101	333,857	341,045,302	0.000979	11,408	11	17	6	12	15	17	3	8	7	17	14		6	333,857	0.00140	11	2.73	13.90	0.73
Ponca	Oklahoma	762	4	89334	83,012	186,384	23,042	46,674	57,162	108,853	341,045,302	0.000319	11,408	4	3	2	5	3	7	1	2	2	7	5		3	108,853	0.00046	4	0.89	4.53	9.37
Redbud Power Plant	Oklahoma	55463	CT-01	4817	4,862,939	6,628,641	3,677,760	4,376,522	7,468,258	6,319,946	341,045,302	0.018531	11,408	211	25	28	27	29	34	25	24	39	39	39		-173			39			
Redbud Power Plant	Oklahoma	55463	CT-02	4818	4,555,704	5,748,420	4,819,740	5,505,094	6,808,480	6,020,665	341,045,302	0.017654	11,408	201	22	32	23	29	32	27	32	37	37	37		-164			37			
Redbud Power Plant	Oklahoma	55463	CT-03	4819	5,047,457	6,183,199	5,359,072	5,828,259	6,672,154	6,227,871	341,045,302	0.018261	11,408	208	21	26	25	29	34	32	33	40	40	40		-169			40			
Redbud Power Plant	Oklahoma	55463	CT-04	4820	5,029,510	4,582,708	4,493,608	3,991,752	6,803,225	5,471,814	341,045,302	0.016044	11,408	183	22	27	29	32	27	31	24	37	37	37		-147			37			
Riverside (4940)	Oklahoma	4940	1501	2660	6,222,962	3,785,870	3,457,341	457,245	188,599	4,488,724	341,045,302	0.013162	11,408	150	597	772	493	782	437	424	56	19	782	188		632	4,488,724	0.01883	150	36.71	186.86	0.61
Riverside (4940)	Oklahoma	4940	1502	2661	6,307,010	6,684,520	4,904,690	264,626	313,353	5,965,407	341,045,302	0.017492	11,408	200	705	594	775	960	907	574	31	34	960	250		761	5,965,407	0.02503	200	48.79	248.33	0.67
Riverside (4940)	Oklahoma	4940	1503	1871	321,619	256,340	50,102	50,949	111,471	229,810	341,045,302	0.000674	11,408	8	38	1	4	22	20	9	3	7	38	10		31	229,810	0.00096	8	1.88	9.57	4.33
Riverside (4940)	Oklahoma	4940	1504	1872	308,812	232,830	42,737	27,573	120,584	220,742	341,045,302	0.000647	11,408	7	17	1	3	87	11	9	2	8	87	9		79	220,742	0.00093	7	1.81	9.19	-2.10
Seminole (2956)	Oklahoma	2956	1	2012	7,276,466	7,231,098	5,441,626	581,067	1,965,855	6,649,730	341,045,302	0.019498	11,408	222	533	660	512	766	755	445	61	187	766	278		543	6,649,730	0.02790	222	54.38	276.82	0.42
Seminole (2956)	Oklahoma	2956	2	2013	7,914,160	6,688,177	5,785,875	501,299	2,815,665	6,796,071	341,045,302	0.019927	11,408	227	689	909	507	945	724	477	54	325	945	284		718	6,796,071	0.02851	227	55.58	282.91	0.38
Seminole (2956)	Oklahoma	2956	3	2014	7,877,917	7,889,247	5,828,963	2,068,523	4,443,605	7,198,709	341,045,302	0.021108	11,408	241	659	339	518	606	641	616	166	361	659	301		418	7,198,709	0.03020	241	58.87	299.68	0.44
Sooner	Oklahoma	6095	1	2773	14,492,320	12,970,207	12,982,243	16,295,046	14,203,709	14,997,025	341,045,302	0.043974	11,408	502	2,612	2,226	2,407	2,160	2,196	2,140	1,209	960	2,612	627		2,110	14,997,025	0.06292	502	122.65	624.31	0.43
Sooner	Oklahoma	6095	2	2774	16,114,964	13,070,591	14,196,639	12,684,629	14,480,181	14,930,595	341,045,302	0.043779	11,408	499	2,869	2,120	2,190	2,580	1,922	1,108	881	1,009	2,869	625		2,369	14,930,595	0.06264	499	122.11	621.55	0.55
Southwestern	Oklahoma	2964	8002	2021	683,954	56,826	192,921	117,045	352,238	409,704	341,045,302	0.001201	11,408	14	7	27	62	116	8	27	16	49	116	17		102	409,704	0.00172	14	3.35	17.06	-0.33
Southwestern	Oklahoma	2964	8003	2022	4,104,929	3,851,791	2,873,574	1,945,321	2,322,871	3,610,098	341,045,302	0.010585	11,408	121	1,318	1,000	1,154	1,176	1,185	356	225	296	1,318	151		1,198	3,610,098	0.01515	121	29.52	150.28	0.47
Southwestern	Oklahoma	2964	8004	1873	375,991	351,913	89,721	71,824	93,537	273,813	341,045,302	0.000803	11,408	9	4	2	4	23	19	5	3	8	23	11		14	273,813	0.00115	9	2.24	11.40	-3.62
Southwestern	Oklahoma	2964	8005	1874	376,331	309,336	72,400	82,264	95,746	260,471	341,045,302	0.000764	11,408	9	4	2	3	21	16	4	4	7	21	11		12	260,471	0.00109	9	2.13	10.84	1.43
Southwestern	Oklahoma	2964	801N	2023	353,020	367,256	93,574	13,786	50,631	271,283	341,045,302	0.000795	11,408	9	4	13	29	47	46	12	2	6	47	11		38	271,283	0.00114	9	2.22	11.29	-2.67
Southwestern	Oklahoma	2964	801S	2024	352,920	426,814	93,553	13,959	43,929	291,096	341,045,302	0.000854	11,408	10	4	10	23	42	53	11	2	5	53	12		43	291,096	0.00122	10	2.38	12.12	-0.98
Spring Creek Power Plant	Oklahoma	55651	CT-01	5035	353,532	409,355	27,743	11,452	44,311	269,066	341,045,302	0.000789	11,408	9	2	3	3	4	5	0	0	1	5	5		-4			5			
Spring Creek Power Plant	Oklahoma	55651	CT-02	5036	358,198	360,108	37,537	9,957	43,954	254,086	341,045,302	0.000745	11,408	8	3	14	3	4	4	0	0	0	14	11		6	254,086	0.00107	8	2.08	10.58	3.84
Spring Creek Power Plant	Oklahoma	55651	CT-03	5037	363,243	285,385	30,473		23,734	226,367	341,045,302	0.000664	11,408	8	2	13	3	4	3	0		3	13	9		6	226,367	0.00095	8	1.85	9.42	-4.70
Spring Creek Power Plant	Oklahoma	55651	CT-04	5038	342,944	296,234	33,309	6,033	30,714	224,162	341,045,302	0.000657	11,408	7	3	16	2	3	3	0	0	3	16	9		8	224,162	0.00094	7	1.83	9.33	-3.69
Tenaska Kiamichi Generating Station	Oklahoma	55501	CTGDB1	4899	4,106,354	5,714,939	3,424,276	3,900,949	3,517,653	4,574,081	341,045,302	0.013412	11,408	153	83	77	72	74	92	66	71	62	92	92		-61			92			
Tenaska Kiamichi Generating Station	Oklahoma	55501	CTGDB2	4900	4,023,474	5,987,472	3,503,399	3,836,373	3,500,287	4,615,773	341,045,302	0.013534	11,408	154	81	81	76	72	100	59	67	63	100	100		-54			100			
Tenaska Kiamichi Generating Station	Oklahoma	55501	CTGDB3	4901	4,111,000	5,782,873	3,842,723	3,474,059	3,370,669	4,578,865	341,045,302	0.013426	11,408	153	80	80	74	75	84	71	62	62	84	84		-69			84			
Tenaska Kiamichi Generating Station	Oklahoma	55501	CTGDB4	4902	4,114,049	5,882,598	3,809,293	3,641,688	3,386,384	4,601,980	341,045,302	0.013494	11,408	154	76	82	70	78	88	66	66	64	88	88		-66			88			
Tulsa	Oklahoma	2965	1402	2025	1,102,922	1,104,548	548,895	194,222	787,108	998,193	341,045,302	0.002927	11,408	33	135	72	97	111	113	56	28	90	135	42		101	998,193	0.00419	33	8.16	41.55	1.06
Tulsa	Oklahoma	2965	1403	2026	284,315					284,315	341,045,302	0.000834	11,408	10	11	9	19	34					34	12		25	284,315	0.00119	10	2.33	11.84	1.37
Tulsa	Oklahoma	2965	1404	2027	1,027,755	872,103	789,282	1,064,146	856,029	988,001	341,045,302	0.002897	11,408	33	96	51	98	102	90	72	108	86	108	41		75	988,001	0.00414	33	8.08	41.13	-0.32
Weleetka	Oklahoma	2966	4	90969					58,506	58,506	341,045,302	0.000172	11,408	2								20	20	2		19	58,506	0.00025	2	0.48	2.44	-21.78
Weleetka	Oklahoma	2966	5	90970							341,045,302	0.000000	11,408	0									0			0			0			
Weleetka	Oklahoma	2966	6	90971					3,702	3,702	341,045,302	0.000011	11,408	0								1	1	0		1	3,702	0.00002	0	0.03	0.15	
										341,045,302		1.000000											State Level All. =	11,408		TOTAL	238,368,207	1	9,459	1,949	9,923	

Difference between Min X,O and State All. = 1,949 to determine reapportionment

Attachment A-2
Oklahoma Cogeneration, LLC
Historical Ozone Season Data Based on EIA Published Data and Accepted Emission Calculation Methodology
Summary of Historical Operating Hours, Fuel Consumption, and Emissions (2008 - 2015)
Table 1

Historical Heat Input Rate and Emissions Summaries for Past Ozone Seasons Using Published EIA Data, Accepted Emission Factors, and CEMS Data (when available)

Ozone Season	Total Operations	Startup (SU) and Shutdown (SD) Operations	Duct Firing Hours	Gas Turbine Heat Input from EIA	Gas Turbine Heat Input During SU & SD	Duct Burner Heat Input from EIA	Total Fuel Consumption from EIA	Gas Turbine Normal Ops NOx Emissions [c]	Gas Turbine SU & SD NOx Emissions [c]	Duct Burner NOx Emissions [c]	Total NOx Emissions [c]	Notes
	Hours	Hours	Hours	MMBTU	MMBTU	MMBTU	MMBTU	Tons	Tons	Tons	Tons	
2008	1,990	56	101	1,465,055	41,387	21,955	**1,487,010**	**115**	**10**	**1**	**126**	[b]
2009	1,389	56	146	1,185,566	47,969	16,404	**1,201,970**	**93**	**12**	**0**	**105**	[b]
2010	1,936	62	617	1,651,538	53,151	83,671	**1,735,209**	**130**	**13**	**2**	**145**	[b]
2011	2,060	57	560	1,884,478	52,209	74,892	**1,959,370**	**148**	**13**	**2**	**163**	[b]
2012	1,669	81	257	1,420,029	68,547	36,567	**1,456,596**	**111**	**17**	**1**	**130**	[b]
2013	1,194	77	103	1,006,842	65,085	11,924	**1,018,766**	**79**	**16**	**0**	**96**	[b]
2014	373	20	10	315,280	16,803	957	**316,237**	**25**	**4**	**0**	**29**	[b]
2015	360	[a-1]	[a-1]	[a-1]	[a-1]	[a-1]	**284,731**	[a-1]	[a-1]	[a-1]	**43**	[a-1]
2016	971	[a-2]	[a-2]	[a-2]	[a-2]	[a-2]	**732,462**	[a-2]	[a-2]	[a-2]	**45**	[a-2]

NOx Emission Factors (2008 - 2014)
Table 2

Operations For Each Emission Factor	NOx Emission Factor [b]	NOx Emission Factor Units	NOx Emission Factor Basis
Gas Turbine, Normal Operations	0.157	lb/MMBTU	[b-1]
Gas Turbine, Startup and Shutdown	0.5	lb/MMBTU	[b-2]
Duct Burner	0.053	lb/MMBTU	[b-3]

[a-1] Based on temporary CEMS data. Emissions are reported for the combined stack, only.

[a-2] Based on permanent CEMS data. Emissions are reported for the combined stack, only.

[b] NOx emission factors are based on the best available emission calculation methodology at the time:

[b-1] 1989 Stack Test, 100% Gas Turbine Load, No Duct Firing, Steam Injection Operational (NOx emission controls)
Since gas turbine and duct burner emissions are considered separately, each emission factor represents the emissions from the respective unit, only.

[b-2] GE 7E Gas Turbine Technical Bulletin (GER-3435.pdf, Page 7, Figure 7 at maximum firing temperature of 2,075 ^{o}F).

[b-3] 1996 Stack Test, Duct Burner Contribution, Only

[c] Emissions Calculation Equations:
Emissions (Tons) = [Emission Factor (lb/MMBTU) * Fuel Consumption (MMBTU)] / 2000 (lb/Ton)]
Total Emissions (Tons) = Gas Turbine Normal Ops Emissions (Tons) + Gas Turbine SU & SD Emissions (Tons) + Duct Burner Emissions (Tons)

Oklahoma Cogeneration Project
http://www.eia.gov/electricity/data/browser/#/plant/50558/?freq=M&pin=
Wed Nov 02 2016 12:19:38 GMT-0500 (Central Daylight Time)
Source: U.S. Energy Information Administration

	units	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
Oklahoma Cogeneration Project													
Net generation	megawatthours												
All primemovers (ALL)	megawatthours												
Net generation-all primemovers-all fuels	megawatthours	36044	36044	36044	36044	36044	36044	36044	36044	36044	36044	36044	36044
Net generation-all primemovers-landfill gas	megawatthours	459	453	453	453	453	453	453	453	453	453	453	453
Net generation-all primemovers-natural gas	megawatthours	35585	35591	35591	35591	35591	35591	35591	35591	35591	35591	35591	35591
Combined-cycle - steam part (CA)	megawatthours												
Net generation-combined-cycle - steam part-landfill gas	megawatthours	118	113	113	113	113	113	113	113	113	113	113	113
Net generation-combined-cycle - steam part-natural gas	megawatthours	8876	8882	8882	8882	8882	8882	8882	8882	8882	8882	8882	8882
Combined-cycle combustion turbine part (CT)	megawatthours												
Net generation-combined-cycle combustion turbine part-landfill gas	megawatthours	341	340	340	340	340	340	340	340	340	340	340	340
Net generation-combined-cycle combustion turbine part-natural gas	megawatthours	26709	26709	26709	26709	26709	26709	26709	26709	26709	26709	26709	26709
Fuel consumption quantity	physical unit												
All primemovers (ALL)	physical unit												
Fuel consumption quantity-all primemovers-landfill gas	mcf	4121	3929	3929	3929	3929	3929	3929	3929	3929	3929	3929	3929
Fuel consumption quantity-all primemovers-natural gas	mcf	280755	280754	280754	280754	280754	280754	280754	280754	280754	280754	280754	280754
Combined-cycle - steam part (CA)	physical unit												
Fuel consumption quantity-combined-cycle - steam part-landfill gas	mcf	187	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-combined-cycle - steam part-natural gas	mcf	629	629	629	629	629	629	629	629	629	629	629	629
Combined-cycle combustion turbine part (CT)	physical unit												
Fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	mcf	3934	3929	3929	3929	3929	3929	3929	3929	3929	3929	3929	3929
Fuel consumption quantity-combined-cycle combustion turbine part-natural gas	mcf	280126	280125	280125	280125	280125	280125	280125	280125	280125	280125	280125	280125
Electric fuel consumption quantity	physical unit												
All primemovers (ALL)	physical unit												
Electric fuel consumption quantity-all primemovers-landfill gas	mcf	3868	3821	3821	3821	3821	3821	3821	3821	3821	3821	3821	3821
Electric fuel consumption quantity-all primemovers-natural gas	mcf	272466	272509	272509	272509	272509	272509	272509	272509	272509	272509	272509	272509
Combined-cycle - steam part (CA)	physical unit												
Electric fuel consumption quantity-combined-cycle - steam part-landfill gas	mcf	187	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-combined-cycle - steam part-natural gas	mcf	629	629	629	629	629	629	629	629	629	629	629	629
Combined-cycle combustion turbine part (CT)	physical unit												
Electric fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	mcf	3681	3821	3821	3821	3821	3821	3821	3821	3821	3821	3821	3821
Electric fuel consumption quantity-combined-cycle combustion turbine part-natural gas	mcf	271837	271880	271880	271880	271880	271880	271880	271880	271880	271880	271880	271880
MMBtu per unit	MMBtu per physical unit												
All primemovers (ALL)	MMBtu per physical unit												
MMBtu per unit-all primemovers-landfill gas	MMBtu per mcf	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
MMBtu per unit-all primemovers-natural gas	MMBtu per mcf	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Combined-cycle - steam part (CA)	MMBtu per physical unit												
MMBtu per unit-combined-cycle - steam part-landfill gas	MMBtu per mcf	0.95	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle - steam part-natural gas	MMBtu per mcf	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Combined-cycle combustion turbine part (CT)	MMBtu per physical unit												
MMBtu per unit-combined-cycle combustion turbine part-landfill gas	MMBtu per mcf	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
MMBtu per unit-combined-cycle combustion turbine part-natural gas	MMBtu per mcf	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Fuel consumption MMBtus	MMBtu												
All primemovers (ALL)	MMBtu												
Fuel consumption MMBtus-all primemovers-all fuels	MMBtu	297585	297402	297402	297402	297402	297402	297402	297402	297402	297402	297402	297402
Fuel consumption MMBtus-all primemovers-landfill gas	MMBtu	3915	3733	3733	3733	3733	3733	3733	3733	3733	3733	3733	3733
Fuel consumption MMBtus-all primemovers-natural gas	MMBtu	293670	293669	293669	293669	293669	293669	293669	293669	293669	293669	293669	293669
Combined-cycle - steam part (CA)	MMBtu												
Fuel consumption MMBtus-combined-cycle - steam part-landfill gas	MMBtu	178	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-combined-cycle - steam part-natural gas	MMBtu	658	658	658	658	658	658	658	658	658	658	658	658
Combined-cycle combustion turbine part (CT)	MMBtu												
Fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	MMBtu	3737	3733	3733	3733	3733	3733	3733	3733	3733	3733	3733	3733
Fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	MMBtu	293012	293011	293011	293011	293011	293011	293011	293011	293011	293011	293011	293011
Electric fuel consumption MMBtus	MMBtu												
All primemovers (ALL)	MMBtu												
Electric fuel consumption MMBtus-all primemovers-all fuels	MMBtu	288674	288675	288675	288675	288675	288675	288675	288675	288675	288675	288675	288675
Electric fuel consumption MMBtus-all primemovers-landfill gas	MMBtu	3675	3630	3630	3630	3630	3630	3630	3630	3630	3630	3630	3630
Electric fuel consumption MMBtus-all primemovers-natural gas	MMBtu	284999	285045	285045	285045	285045	285045	285045	285045	285045	285045	285045	285045
Combined-cycle - steam part (CA)	MMBtu												
Electric fuel consumption MMBtus-combined-cycle - steam part-landfill gas	MMBtu	178	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-combined-cycle - steam part-natural gas	MMBtu	658	658	658	658	658	658	658	658	658	658	658	658
Combined-cycle combustion turbine part (CT)	MMBtu												
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	MMBtu	3497	3630	3630	3630	3630	3630	3630	3630	3630	3630	3630	3630
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	MMBtu	284341	284387	284387	284387	284387	284387	284387	284387	284387	284387	284387	284387

	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09
Net generation-all primemovers-all fuels	28267	10603	43273	0	2648	35428	38898	34022	27991	33251	13308	35203
Net generation-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-all primemovers-natural gas	28267	10603	43273	0	2648	35428	38898	34022	27991	33251	13308	35203
Net generation-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-combined-cycle - steam part-natural gas	6175	2333	9522	0	582	7797	8496	7478	6159	7318	2929	7748
Net generation-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-combined-cycle combustion turbine part-natural gas	22092	8270	33751	0	2066	27631	30402	26544	21832	25933	10379	27455
Fuel consumption quantity-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-all primemovers-natural gas	235791	88265	360228	0	22048	300531	328659	289449	233019	276791	110781	293039
Fuel consumption quantity-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-combined-cycle - steam part-natural gas	0	0	0	0	0	5619	4169	6138	0	0	0	0
Fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-combined-cycle combustion turbine part-natural gas	235791	88265	360228	0	22048	294912	324490	283311	233019	276791	110781	293039
Electric fuel consumption quantity-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-all primemovers-natural gas	221063	82752	337726	0	20671	276456	304195	265578	218463	259501	103860	274733
Electric fuel consumption quantity-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-combined-cycle - steam part-natural gas	0	0	0	0	0	5619	4169	6138	0	0	0	0
Electric fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-combined-cycle combustion turbine part-natural gas	221063	82752	337726	0	20671	270837	300026	259440	218463	259501	103860	274733
MMBtu per unit-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-all primemovers-natural gas	1.02	1.02	1.02	--	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
MMBtu per unit-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle - steam part-natural gas	--	--	--	--	--	1.03	1.03	1.03	--	--	--	--
MMBtu per unit-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle combustion turbine part-natural gas	1.02	1.02	1.02	--	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Fuel consumption MMBtus-all primemovers-all fuels	241450	90383	368873	0	22577	307778	336572	296432	238611	283434	113440	300072
Fuel consumption MMBtus-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-all primemovers-natural gas	241450	90383	368873	0	22577	307778	336572	296432	238611	283434	113440	300072
Fuel consumption MMBtus-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-combined-cycle - steam part-natural gas	0	0	0	0	0	5788	4294	6322	0	0	0	0
Fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	241450	90383	368873	0	22577	301990	332278	290110	238611	283434	113440	300072
Electric fuel consumption MMBtus-all primemovers-all fuels	226369	84738	345831	0	21167	283125	311521	271989	223706	265729	106353	281327
Electric fuel consumption MMBtus-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-all primemovers-natural gas	226369	84738	345831	0	21167	283125	311521	271989	223706	265729	106353	281327
Electric fuel consumption MMBtus-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-combined-cycle - steam part-natural gas	0	0	0	0	0	5788	4294	6322	0	0	0	0
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	226369	84738	345831	0	21167	277337	307227	265667	223706	265729	106353	281327

	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10
Net generation-all primemovers-all fuels	63919	33309	0	17223	20119	45773	55801	43528	33623	22698	18500	64861
Net generation-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-all primemovers-natural gas	63919	33309	0	17223	20119	45773	55801	43528	33623	22698	18500	64861
Net generation-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-combined-cycle - steam part-natural gas	13876	7284	0	3766	4400	10010	12113	9449	7353	4964	4046	14185
Net generation-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-combined-cycle combustion turbine part-natural gas	50043	26025	0	13457	15719	35763	43688	34079	26270	17734	14454	50676
Fuel consumption quantity-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-all primemovers-natural gas	532833	276101	0	142761	167934	402759	487251	385187	290344	188152	156541	552384
Fuel consumption quantity-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-combined-cycle - steam part-natural gas	1928	0	0	0	1169	23351	23775	23647	11645	18	3204	14766
Fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-combined-cycle combustion turbine part-natural gas	530905	276101	0	142761	166765	379408	463476	361540	278699	188134	153337	537618
Electric fuel consumption quantity-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-all primemovers-natural gas	511309	265909	0	137492	160610	365404	446369	348195	268412	181190	147678	517774
Electric fuel consumption quantity-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-combined-cycle - steam part-natural gas	1928	0	0	0	1169	23351	23775	23647	11645	18	3204	14766
Electric fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-combined-cycle combustion turbine part-natural gas	509381	265909	0	137492	159441	342053	422594	324548	256767	181172	144474	503008
MMBtu per unit-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-all primemovers-natural gas	1	1	--	1	1	1	1	1	1	1	1	1
MMBtu per unit-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle - steam part-natural gas	1	--	--	--	1	1	1	1	1	1	1	1
MMBtu per unit-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle combustion turbine part-natural gas	1	1	--	1	1	1	1	1	1	1	1	1
Fuel consumption MMBtus-all primemovers-all fuels	533366	276377	0	142904	168102	403161	487738	385573	290635	188340	156697	552937
Fuel consumption MMBtus-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-all primemovers-natural gas	533366	276377	0	142904	168102	403161	487738	385573	290635	188340	156697	552937
Fuel consumption MMBtus-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-combined-cycle - steam part-natural gas	1930	0	0	0	1170	23374	23799	23671	11657	18	3207	14781
Fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	531436	276377	0	142904	166932	379787	463939	361902	278978	188322	153490	538156
Electric fuel consumption MMBtus-all primemovers-all fuels	511820	266175	0	137629	160770	365769	446816	348544	268681	181371	147825	518292
Electric fuel consumption MMBtus-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-all primemovers-natural gas	511820	266175	0	137629	160770	365769	446816	348544	268681	181371	147825	518292
Electric fuel consumption MMBtus-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-combined-cycle - steam part-natural gas	1930	0	0	0	1170	23374	23799	23671	11657	18	3207	14781
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	509890	266175	0	137629	159600	342395	423017	324873	257024	181353	144618	503511

	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
Net generation-all primemovers-all fuels	17608	18473	0	0	15366	37020	97948	55987	24093	14291	24869	17800
Net generation-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-all primemovers-natural gas	17608	18473	0	0	15366	37020	97948	55987	24093	14291	24869	17800
Net generation-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-combined-cycle - steam part-natural gas	4029	4258	0	0	3542	8533	22413	12811	5554	3294	5732	4103
Net generation-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-combined-cycle combustion turbine part-natural gas	13579	14215	0	0	11824	28487	75535	43176	18539	10997	19137	13697
Fuel consumption quantity-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-all primemovers-natural gas	143972	150714	0	0	125843	302870	840282	486164	201940	116600	202896	146197
Fuel consumption quantity-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-combined-cycle - steam part-natural gas	0	0	0	0	478	835	39418	28392	5381	0	0	978
Fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-combined-cycle combustion turbine part-natural gas	143972	150714	0	0	125365	302035	800864	457772	196559	116600	202896	145219
Electric fuel consumption quantity-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-all primemovers-natural gas	140826	147421	0	0	122626	295431	783165	447654	192263	114052	198462	142045
Electric fuel consumption quantity-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-combined-cycle - steam part-natural gas	0	0	0	0	478	835	39418	28392	5381	0	0	978
Electric fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-combined-cycle combustion turbine part-natural gas	140826	147421	0	0	122148	294596	743747	419262	186882	114052	198462	141067
MMBtu per unit-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-all primemovers-natural gas	1	1	--	--	1	1	1	1	1	1	1	1
MMBtu per unit-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle - steam part-natural gas	--	--	--	--	1	1	1.01	1.01	1	--	--	1
MMBtu per unit-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle combustion turbine part-natural gas	1	1	--	--	1	1	1	1	1	1	1	1
Fuel consumption MMBtus-all primemovers-all fuels	144116	150865	0	0	125968	303176	841320	486764	202142	116717	203099	146344
Fuel consumption MMBtus-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-all primemovers-natural gas	144116	150865	0	0	125968	303176	841320	486764	202142	116717	203099	146344
Fuel consumption MMBtus-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-combined-cycle - steam part-natural gas	0	0	0	0	478	839	39655	28534	5386	0	0	980
Fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	144116	150865	0	0	125490	302337	801665	458230	196756	116717	203099	145364
Electric fuel consumption MMBtus-all primemovers-all fuels	140967	147568	0	0	122748	295730	784146	448215	192455	114166	198660	142188
Electric fuel consumption MMBtus-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-all primemovers-natural gas	140967	147568	0	0	122748	295730	784146	448215	192455	114166	198660	142188
Electric fuel consumption MMBtus-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-combined-cycle - steam part-natural gas	0	0	0	0	478	839	39655	28534	5386	0	0	980
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	140967	147568	0	0	122270	294891	744491	419681	187069	114166	198660	141208

	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
Net generation-all primemovers-all fuels	0	7176	15048	1968	25097	49090	43662	32014	24051	14200	7042	8579
Net generation-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-all primemovers-natural gas	0	7176	15048	1968	25097	49090	43662	32014	24051	14200	7042	8579
Net generation-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-combined-cycle - steam part-natural gas	0	1476	3096	405	5202	10175	9050	6636	4947	2921	1449	1765
Net generation-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Net generation-combined-cycle combustion turbine part-natural gas	0	5700	11952	1563	19895	38915	34612	25378	19104	11279	5593	6814
Fuel consumption quantity-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-all primemovers-natural gas	0	60697	129148	17788	213051	421382	380109	278467	210752	127420	59562	72563
Fuel consumption quantity-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-combined-cycle - steam part-natural gas	0	0	1879	1145	1197	6994	11538	8226	7317	7317	0	0
Fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption quantity-combined-cycle combustion turbine part-natural gas	0	60697	127269	16643	211854	414388	368571	270241	203435	120103	59562	72563
Electric fuel consumption quantity-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-all primemovers-natural gas	0	58839	123282	16053	205272	401046	356424	261480	196749	115971	57737	70340
Electric fuel consumption quantity-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-combined-cycle - steam part-natural gas	0	0	1879	1145	1197	6994	11538	8226	7317	7317	0	0
Electric fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption quantity-combined-cycle combustion turbine part-natural gas	0	58839	121403	14908	204075	394052	344886	253254	189432	108654	57737	70340
MMBtu per unit-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-all primemovers-natural gas	--	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
MMBtu per unit-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle - steam part-natural gas	--	--	1.01	1.03	1.04	1.06	1.04	1.02	1.03	1.03	--	--
MMBtu per unit-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle combustion turbine part-natural gas	--	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Fuel consumption MMBtus-all primemovers-all fuels	0	58694	124972	17279	206111	408106	368396	269746	204237	123655	57596	70168
Fuel consumption MMBtus-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-all primemovers-natural gas	0	58694	124972	17279	206111	408106	368396	269746	204237	123655	57596	70168
Fuel consumption MMBtus-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-combined-cycle - steam part-natural gas	0	0	1903	1185	1248	7393	11988	8423	7515	7515	0	0
Fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	0	58694	123069	16094	204863	400713	356408	261323	196722	116140	57596	70168
Electric fuel consumption MMBtus-all primemovers-all fuels	0	56897	119300	15601	198589	388441	345493	253320	190696	112583	55832	68019
Electric fuel consumption MMBtus-all primemovers-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-all primemovers-natural gas	0	56897	119300	15601	198589	388441	345493	253320	190696	112583	55832	68019
Electric fuel consumption MMBtus-combined-cycle - steam part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-combined-cycle - steam part-natural gas	0	0	1903	1185	1248	7393	11988	8423	7515	7515	0	0
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	0	0	0	0	0	0	0	0	0	0	0	0
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	0	56897	117397	14416	197341	381048	333505	244897	183181	105068	55832	68019

	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
Net generation-all primemovers-all fuels	3204	0	0	0	1597	31133	28342	34584	24550	7229	20826	38210
Net generation-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Net generation-all primemovers-natural gas	3204	0	0	0	1597	31133	28342	34584	24550	7229	20826	38210
Net generation-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Net generation-combined-cycle - steam part-natural gas	351	0	0	0	292	6429	5375	7040	4709	1382	3903	8404
Net generation-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Net generation-combined-cycle combustion turbine part-natural gas	2853	0	0	0	1305	24704	22967	27544	19841	5847	16923	29806
Fuel consumption quantity-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption quantity-all primemovers-natural gas	27546	0	0	0	13232	245580	236885	293571	204297	61732	146593	316254
Fuel consumption quantity-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption quantity-combined-cycle - steam part-natural gas	0	0	0	0	0	7077	921	3625	0	0	0	2223
Fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption quantity-combined-cycle combustion turbine part-natural gas	27546	0	0	0	13232	238503	235964	289946	204297	61732	146593	314031
Electric fuel consumption quantity-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption quantity-all primemovers-natural gas	24882	0	0	0	12325	240252	219148	263532	189802	56328	146593	296719
Electric fuel consumption quantity-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption quantity-combined-cycle - steam part-natural gas	0	0	0	0	0	7077	921	3625	0	0	0	2223
Electric fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption quantity-combined-cycle combustion turbine part-natural gas	24882	0	0	0	12325	233175	218227	259907	189802	56328	146593	294496
MMBtu per unit-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-all primemovers-natural gas	1.03	--	--	--	1.02	1.02	1.02	1.04	1.02	1.02	1.02	1.03
MMBtu per unit-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle - steam part-natural gas	--	--	--	--	--	1.02	1.02	1.04	--	--	--	1.03
MMBtu per unit-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle combustion turbine part-natural gas	1.03	--	--	--	1.02	1.02	1.02	1.03	1.02	1.02	1.02	1.03
Fuel consumption MMBtus-all primemovers-all fuels	28510	0	0	0	13523	250983	241622	303846	208792	63090	149525	326690
Fuel consumption MMBtus-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption MMBtus-all primemovers-natural gas	28510	0	0	0	13523	250983	241622	303846	208792	63090	149525	326690
Fuel consumption MMBtus-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption MMBtus-combined-cycle - steam part-natural gas	0	0	0	0	0	7233	939	3752	0	0	0	2296
Fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	28510	0	0	0	13523	243750	240683	300094	208792	63090	149525	324394
Electric fuel consumption MMBtus-all primemovers-all fuels	25753	0	0	0	12596	245538	223531	272756	193978	57567	149525	306510
Electric fuel consumption MMBtus-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption MMBtus-all primemovers-natural gas	25753	0	0	0	12596	245538	223531	272756	193978	57567	149525	306510
Electric fuel consumption MMBtus-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption MMBtus-combined-cycle - steam part-natural gas	0	0	0	0	0	7233	939	3752	0	0	0	2296
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	25753	0	0	0	12596	238305	222592	269004	193978	57567	149525	304214

	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14
Net generation-all primemovers-all fuels	15326	0	0	25986	21655	4772	1359	7726	2600	0	16019	0
Net generation-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Net generation-all primemovers-natural gas	15326	0	0	25986	21655	4772	1359	7726	2600	0	16019	0
Net generation-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Net generation-combined-cycle - steam part-natural gas	3213	0	0	6155	5211	1081	258	1573	499	0	3200	0
Net generation-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Net generation-combined-cycle combustion turbine part-natural gas	12113	0	0	19831	16444	3691	1101	6153	2101	0	12819	0
Fuel consumption quantity-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption quantity-all primemovers-natural gas	125957	0	0	213354	170747	39270	12190	62652	21289	0	132650	0
Fuel consumption quantity-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption quantity-combined-cycle - steam part-natural gas	0	0	0	0	0	0	0	456	450	0	0	0
Fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption quantity-combined-cycle combustion turbine part-natural gas	125957	0	0	213354	170747	39270	12190	62196	20839	0	132650	0
Electric fuel consumption quantity-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption quantity-all primemovers-natural gas	118691	0	0	198411	164536	37524	11208	58639	19121	0	126260	0
Electric fuel consumption quantity-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption quantity-combined-cycle - steam part-natural gas	0	0	0	0	0	0	0	456	450	0	0	0
Electric fuel consumption quantity-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption quantity-combined-cycle combustion turbine part-natural gas	118691	0	0	198411	164536	37524	11208	58183	18671	0	126260	0
MMBtu per unit-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-all primemovers-natural gas	1.04	--	--	1.03	1.04	1	0.96	1.04	1.07	--	1.02	--
MMBtu per unit-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle - steam part-natural gas	--	--	--	--	--	--	--	1.04	1.07	--	--	--
MMBtu per unit-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
MMBtu per unit-combined-cycle combustion turbine part-natural gas	1.04	--	--	1.03	1.04	1	0.96	1.04	1.07	--	1.02	--
Fuel consumption MMBtus-all primemovers-all fuels	130743	0	0	220395	177235	39388	11654	65096	22864	0	135038	0
Fuel consumption MMBtus-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption MMBtus-all primemovers-natural gas	130743	0	0	220395	177235	39388	11654	65096	22864	0	135038	0
Fuel consumption MMBtus-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption MMBtus-combined-cycle - steam part-natural gas	0	0	0	0	0	0	0	474	483	0	0	0
Fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	130743	0	0	220395	177235	39388	11654	64622	22381	0	135038	0
Electric fuel consumption MMBtus-all primemovers-all fuels	123201	0	0	204959	170788	37637	10715	60926	20536	0	128533	0
Electric fuel consumption MMBtus-all primemovers-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption MMBtus-all primemovers-natural gas	123201	0	0	204959	170788	37637	10715	60926	20536	0	128533	0
Electric fuel consumption MMBtus-combined-cycle - steam part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption MMBtus-combined-cycle - steam part-natural gas	0	0	0	0	0	0	0	474	483	0	0	0
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-landfill gas	--	--	--	--	--	--	--	--	--	--	--	--
Electric fuel consumption MMBtus-combined-cycle combustion turbine part-natural gas	123201	0	0	204959	170788	37637	10715	60452	20053	0	128533	0

EIA Web Data Summary

Published EIA Data	
Year	MMBTU/ozone season
2014	316,237
2013	1,018,766
2012	1,456,596
2011	1,959,370
2010	1,735,209
2009	1,201,970
2008	1,487,010