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CALPINE KING CITY COGEN, LLC
(85-AFC-5C)

KING CITY POWER PLANT

CALIFORNIA ENERGY COMMISSION

ANNUAL COMPLIANCE REPORT

Calendar Year 2018

Calpine King City Cogen, LLC
750 Metz Road
King City, CA 93930

California Energy Commission
2018 Annual Compliance Report
January 1, 2018 - December 31, 2018

CURRENT PROJECT STATUS

On April 28, 1999 the terms of the PPA required the facility to adopt a 24 hours per day, 7 days per week operating schedule for the remainder of the term of the agreement (year 2019). The Cogen operated through 2007 according to this schedule when economically viable. During this period the facility was shut down for maintenance outages, economic curtailments and experienced forced outages.

In November 2006, the facility began 5x13 operation running Monday through Friday 08:30 to 21:30. This operating schedule remained through 2018 and we expect it to continue through April 2019, at which time the PPA ends.

The annual scheduled outage happened in March and April of 2018. The combustion and steam turbine were each down approximately 370 hours to conduct annual maintenance in this outage. Operation details are provided in the Operating, Availability and Capacity Report (Attachment 1)

During all of the above outages, Rava Business Park was supplied steam on as needed basis by the cogeneration plant auxiliary boilers.

Overall, the facility continues to maintain an excellent record of availability for electrical production, with no interruptions of steam supply.

STATUS OF COMPLIANCE PLAN REQUIREMENTS FOR WHICH ACTION WAS SCHEDULED DURING THIS PERIOD

Cogeneration

Cogen-01 Project Owner shall file with the California Energy Commission during each calendar year an annual report in which monthly average values of the following parameters will be given; 1) monthly fuel use (quantity and Btu value) as evidenced by an invoice from the gas supplier, 2) monthly electrical sales (KWh) as evidenced by invoice from PG&E, 3) monthly steam sales (quantity and Btu value) as evidenced by an invoice to RAVA, 4) feedwater rate (lb/hr) and temperature (F), 5) condensate return rate (lb/hr) and temperature, 6) process steam from auxiliary boilers (lb/hr) and temperature, pressure, enthalpy, auxiliary boilers operating hours.

Status – Refer to 2018 Operating, Availability and Capacity Report (Attachment 1)

Reliability and Safety

RE-01 Project Owner shall inform the CEC of any design changes made subsequent to certification by the Commission, whether made during final design or construction, which would affect the project's availability or capacity factors.

Status – No changes were made during 2018 that would affect the projects availability or capacity factors.

RE-03 Project Owner shall prepare an annual report documenting the plant availability and capacity factors achieved, supported by the following information: Combustion turbine/generators, Heat Recovery steam generators, Feedwater pumps, Steam turbine/generators, Condensers, Condensate pumps, Cooling water pumps, Controls. For each forced outage a precise identification of the equipment whose failure resulted in the forced outage and resulting forced outage hours. Identification of equipment or other causes (curtailments) for which planned outage was instituted in any given month. Annual plant availability and capacity factors, per EPRI definitions.

Status – Refer to 2018 Operating, Availability and Capacity Report (Attachment 1)

Public Health

PH-01 Project Owner shall cause to be established an ambient monitoring system for ozone, TSP, and PM10 in the Salinas Valley, downwind and south of the facility.

Status – Project Owner continues to financially support the operation of the King City Air Monitoring Station. The station commenced operation on March 8, 1998 at the Industrial Road site. In May 2007, the station was relocated when the original site became unsuitable to its current location at the San Lorenzo School on Pearl Street in King City. The station is located in King City. The King City Air Monitoring Station is owned and operated by Monterey Bay Unified Air Pollution Control District effective July 1, 2010. The station is currently monitoring ozone, PM10, PM-2.5, shelter temperature, wind speed, wind direction, ambient temperature and relative humidity. The Air Monitoring Station was maintained and operated in 2018.

PH-02 Project Owner shall limit ammonia emission due to ammonia slip in the NOx reduction process to no greater than 10 parts of ammonia per 1 million parts of flue gas.

Status - The facility remained in compliance with this condition in 2018.

Ammonia Safety

AM-01 Project Owner shall comply with storage and handling requirements of anhydrous ammonia as specified in Title 29, CFR, Sec. 1910.111; Title 8, CAC, Ch. 4, Subchapter 1, Article 6, and ANSI K61.1 – 1981. Verify via Monterey County Department of Health Permit.

Status – The facility remained in compliance with this condition in 2018, and is in compliance with the ammonia storage and handling requirements. The hazardous materials permit is issued by the Monterey County Department of Environmental Health, the local Certified Unified Program Agency (CUPA). The annual hazardous material permit was renewed and remains valid until June 30, 2019.

AM-03 Project Owner shall contract only with Department of Transportation licensed haulers for the transport of anhydrous ammonia.

Status – The facility remained in compliance with this condition in 2018.

AM-09 Project Owner shall facilitate on-site worker safety inspections conducted by the California Division of Occupational Safety and Health during construction and operation of the facility when an employee complaint has been received.

Status – The facility did not receive any employee complaints in 2018. The facility remained in compliance with this condition in 2018.

Air Quality

AQ-01 Before implementing any major change in the Air Pollution Control (APC) systems identified in Determination of Compliance (DOC) Conditions 8, 15, and 16, the Emissions Monitoring Systems (EMS) identified in DOC Conditions 17 through 24, or if any changes to any Conditions of Certification related to air quality are proposed, the project owner shall submit the proposed change to the Monterey Bay Unified Air Pollution Control District (MBUAPCD or District) and the Energy Commission for approval. Examples of major changes are the use of alternative APC systems, EMS, or equipment, or a major change in the performance criteria specified in the referenced DOC Conditions.

Status – During 2018 the facility did not implement any major changes to the air pollution control system, the emissions monitoring system or make any changes affecting air quality conditions of certification. The facility remained in compliance with this condition in 2018.

AQ-02 The project owner shall report any minor change in the APC systems identified in DOC Conditions 8, 15, and 16, or the EMS identified in DOC Conditions 17 through 22, to the MBUAPCD and CPM CEC staff. Examples of minor changes are modifications made grade during initial startup of the facility to ensure compliance with applicable emission limitations or use of alternative hardware to meet the required performance criteria.

Status – During 2018 the facility did not implement or make any minor changes to the air pollution control system or the emissions monitoring system. The facility remained in compliance with this condition in 2018.

AQ-05 The MBUAPCD shall monitor all activities related to site preparation and construction, and monitor operation of the project to ensure compliance with the Conditions of Certification contained in the Commission Decision relating to Air Quality. The MBUAPCD shall perform all duties and functions normally performed by the MBUAPCD and shall have the authority to issue a Permit to Operate. The conditions of the Permit to Operate will be consistent with the

Certification Conditions in the Commission Decision. The project owner shall submit to the CPM a report on the status of compliance for each condition related to air quality in the Commission Decision on the project. These reports shall be submitted annually.

Status – The facility remained in compliance with this condition in 2018. The facility submits the annual Title V compliance certification report to MBUAPCD by Feb 15th of each year. Refer to the 2018 Title V Annual Certification Report (Attachment 2). The MBUAPCD renews the Permits to Operate annually in May. The PTOs for all equipment at the facility remain valid.

AQ-07 The annual emissions of the gas turbine shall not exceed 130 tons per year of NO_x and 82 tons per year of CO.

Status – The facility remained in compliance with this condition in 2018. In 2018, the gas turbine emissions remained below the 130 tons per year of NOx limit and 82 tons per year of CO. Refer to the 2018 Annual Facility Emission Report (Attachment 3).

AQ-08 The maximum annual NOx emission cap for the combined or individual operation of the gas turbine and/or the boiler(s) shall not exceed 133.40 tons per year.

Status – The facility remained in compliance with this condition in 2018. In 2018, the gas turbine and boilers annual NOx emissions total for the plant remained below 133.4 tons per year. Refer to the 2018 Annual Facility Emission Report (Attachment 3).

AQ-20 The auxiliary boilers shall be fired on natural gas, except that No.2 fuel oil may be used during training/testing, or periods of natural gas curtailment by the utility, or in the event of natural gas supply malfunction or disruption not within the control of the project owner. In any event, No.2 fuel oil shall not be used for more than 240 hours per year per boiler.

Status – The facility remained in compliance with this condition in 2018. The auxiliary boilers were not fired on No.2 fuel oil for training/testing or natural gas curtailments during 2018.

AQ-23 The sulfur content of any No.2 oil used as fuel in the turbine or auxiliary boilers shall not exceed 0.05 percent by weight. All fuel received must be certified to contain 0.05 percent sulfur, or less, by weight.

Status – The facility remained in compliance with this condition in 2018. The gas turbine or auxiliary boilers did not operate on No.2 fuel oil during 2018. The No.2 fuel oil storage tank remained empty during 2018.

AQ-16 Submit gas turbine cold and hot startup protocols which minimize emissions. Amend protocols based on operating experience.

Status – The facility remained in compliance with this condition in 2018. The gas turbine startup protocol was reviewed and kept current in 2018.

AQ-34: An annual compliance test shall be conducted prior to January 1 of each year in accordance with the MBUAPCD test procedures, and the written results of the compliance test shall be provided to the District within sixty 60 days after testing. A testing protocol shall be submitted to the District 30 days prior to testing and the District shall be notified at least 10 days prior to the actual testing day so that a District observer can be present.

Status – The facility remained in compliance with this condition in 2018. The annual compliance test was conducted in May 2018 by Aeros Environmental, Inc.

AQ-36 Conduct gas turbine ammonia slip tests per MBUAPCD approved procedures on an annual basis to determine turbine stack discharge ammonia emissions.

Status – The facility remained in compliance with this condition in 2018. The annual compliance testing including ammonia slip was conducted in May 2018 by Aeros Environmental, Inc. Ammonia slip test results demonstrate the facility remains below permit limits.

AQ-38 Monitor and record all periods of oil firing in a log maintained on site and shall submit a summary of this data on an annual basis, at the time of permit renewal.

Status – The facility remained in compliance with this condition in 2018. Neither the gas turbine nor the auxiliary boilers were fired on fuel oil during 2018.

AQ-39 Project Owner shall monitor and record all startup, shutdown, and operational profiles in a log maintained on site.

Status – The facility remained in compliance with this condition in 2018. Startup, shutdowns and operating profiles are recorded in the control room electronic J5 logbook.

AQ-41 Submit a statement in the Annual Compliance Report that operations have been conducted in compliance with all data and specifications submitted with the application.

Status – The facility remained in compliance with this condition in 2018. Operations of the King City Cogen Power Plant during 2018 have been conducted in compliance with all data and specifications submitted with the application. Also included is the 2018 Title V Annual Certification Report (Attachment 2).

AQ-42 Submit a statement in the Annual Compliance Report that equipment must be properly maintained and kept in good operating condition.

Status – The facility remained in compliance with this condition in 2018. The equipment has been properly maintained and kept in good operating condition during the 2018 reporting period. Also included is the 2018 Title V Annual Certification Report (Attachment 2).

AQ-43 Submit a statement in the Annual Compliance Report equipment must not be operated unless it is vented to air pollution control equipment which is in full use.

Status – The facility remained in compliance with this condition in 2018. The plant equipment was not operated in 2018 unless it was vented to air pollution control equipment, which was in full use. Also included is the 2018 Title V Annual Certification Report (Attachment 2).

AQ-44 The project owner shall cause to be operated an ambient monitoring station at a site approved by the Air Pollution Control Officer, for NO_2, PM10, and O_3 and standard meteorological parameters on a continuous basis, in accordance with the EPA requirement contained in 40 CFR 58, and as deemed necessary in

accordance with the California Air Resources Board guidelines as deemed necessary,. The monitoring station instrumentation shall be compatible with the District's daily data retrieval polling methods.

Status – The facility remained in compliance with this condition in 2018. The ambient air monitoring station is owned and operated by MBUAPCD since July 1, 2010. Parameters being monitored at the King City station are Ozone, PM-10, PM-2.5, Wind Speed, Wind Direction, and Ambient Temperature. The Air Monitoring Station was maintained and operated in 2018.

AQ-45 Allow MBUAPCD and CEC personnel site entry for inspection and access to records described in permits. Submit a statement in the Annual Compliance Report on compliance with this condition.

Status – The facility remained in compliance with this condition in 2018.

AQ-47 The gas turbine and the auxiliary boilers must not be operated simultaneously for more than 6 full load equivalent hours during any 24-hour period.

Status – The facility remained in compliance with this condition in 2018. AQ-08 was amended on 8/22/00 by the CEC to eliminate the restrictive hours of operations placed on the two auxiliary boilers. Quarterly emission caps were applied per MBUAPCD Permit to Operate effective October 6, 2000. Quarterly and annual NOx emission for the plant remained below permit limit in 2018. Refer to the 2018 Annual Facility Emission Report (Attachment 3).

AQ-50 Conduct monthly tests to measure total dissolved solids (TDS) in circulating water. Monitoring records shall be available to the MBUAPCD and CPM upon request.

Status – The facility remained in compliance with this condition in 2018. Monthly cooling tower TDS test samples were collected and analyzed in 2018 by FGL a certified laboratory. Copies of the monthly TDS lab reports are available to the MBUAPCD and CPM upon request.

AQ-51 Design and operate the cooling tower so that PM-10 drift emissions do not exceed 20 pounds per day.

Status – The facility remained in compliance with this condition in 2018. Emissions from the cooling tower did not exceeded 20 pounds per day of PM-10 in 2018. PM10 emissions are submitted in the monthly report to the MBUAPCD.

AQ-53 Cumulative emissions, including emissions generated during Start-ups and Shutdown, from all equipment at Project Owner King City Cogen and the Gilroy Energy Center shall not exceed the following quarterly and annual limits:

	NOx (lb.)	CO (lb.)	PM10 (lb.)	VOC (lb.)	SO_2 (lb.)
1st Quarter	72,452	58,445	12,071	4,762	1,748
2nd Quarter	73,178	59,095	12,204	4,815	1,768
3rd Quarter	73,905	59,744	12,339	4,868	1,787
4th Quarter	73,905	59,744	12,339	4,868	1,787
Annual	293,440	237,028	48,953	19,313	7,090

Status – The facility remained in compliance with this condition in 2018. The facility quarterly emissions are submitted quarterly to the MBUAPCD. Refer to the 2018 Annual Facility Emission Report (Attachment 3).

AQ-54 The emission limits contained in Conditions of Certification AQ-6, AQ-10, AQ-11 and AQ-12 shall not apply during periods of combustor tuning, balancing, or non-Air District regulatory mandated performance testing. These periods shall not exceed 100 hours per year. The project owner shall notify the District prior to initiating any of these activities, and shall monitor and record all periods of these activities in a log maintained on-site and shall submit a summary of this data to the District and CPM as part of the annual report

Status – The facility remained in compliance with this condition in 2018. No Tuning was conducted in 2018.

AQ-55 The emission limits contained in Conditions of Certification AQ-18, AQ-19 and AQ-21 shall not apply during periods of boiler tuning. Boiler tuning shall not exceed 50 hours per year per boiler.

Status - The facility remained in compliance with this condition in 2018. No Tuning was conducted in 2018.

Safety

SY-07 Project Owner and the King City Fire Department shall annually re-examine the fire protection program.

Status – The facility remained in compliance with this condition in 2018. The City of King, Fire Marshall conducted a site inspection and reviewed the facility fire protection program on December 11, 2018. There were no issues or findings from this inspection.

SY-09 Project Owner shall facilitate on-site worker safety inspections conducted by the California Division of Occupational Safety and Health during construction and operation of the facility when an employee complaint has been received.

Status – The facility remained in compliance with this condition in 2018. The facility has not received any employee complaints in 2018.

SY-12 Project Owner shall contract only with Department of Transportation licensed haulers for the transportation of hazardous materials.

Status – The facility remained in compliance with this condition in 2018. The facility uses DOT licensed haulers to transport hazardous materials.

Transmission Line Safety and Nuisance

TSN-01 Project Owner shall request PG&E to inspect the transmission line annually to ensure compliance with applicable standards, ordinances, and laws.

Status - The facility remained in compliance with this condition in 2018. Project Owner has requested PG&E to inspect the transmissions lines annually.

TSN-06 Project Owner shall request PG&E to keep each transmission line pole site free of waste material, rubbish, and vegetation as required by regulation. Calpine shall submit at least once a year a record of PG&E inspection and clean-up reports of the fire prevention activities around the transmission line poles.

Status - The facility remained in compliance with this condition in 2018. The transmission line poles site were free of waste material, rubbish and vegetation in 2018.

Transportation

TT-01 Project Owner shall notify the CEC of any overload permits obtained from Caltrans and Monterey County or of the alternative transport of heavy equipment to the site by rail.

Status – The facility remained in compliance with this condition in 2018. No overload permit(s) were obtained from Caltrans and Monterey County in 2018.

TT-02 Project Owner shall notify the CEC upon satisfaction of the encroachment and excavation permit requirements. The site shall also file any required or requested information with the City.

Status – The facility remained in compliance with this condition in 2018. No encroachment and excavation permit(s) were obtained from the City in 2018.

TT-03 Project Owner shall comply with the King City ordinance regarding use of designated city streets.

Status – The facility remained in compliance with this condition in 2018. Contracted deliveries were in compliance with King City Ordinance in 2018.

TT-04 Project Owner shall enter into the standard contractual agreement with King City to restore to pre-project conditions any areas impacted by project-related related truck traffic.

Status – The facility remained in compliance with this condition in 2018. In 2018 there was no project related truck traffic impacting the city streets.

TT-05 Project Owner shall place under Metz Road any utility extensions or new water lines required, and through traffic will be maintained on Metz Road during such utility placement.

Status - The facility remained in compliance with this condition in 2018. No utility extensions or new water lines were installed in 2018.

TT-06 Project Owner shall comply with applicable transportation safety standards, ordinances, and laws in transporting ammonia to the project site.

Status – The facility remained in compliance with this condition in 2018. All applicable standards, ordinances, and laws regarding ammonia transportation were complied with in 2018.

Visual Resources

VR-01 Project Owner shall paint all structures, stacks and tanks a color that will blend with the bluff north of the site.

Status – The facility remained in compliance with this condition in 2018. No structures, stacks or tanks were painted in 2018.

Waste Management

WM-02 Project Owner shall dispose of periodic operational wastes in a Class I landfill or obtain approval from the Regional Water Quality Control Board (RWQCB) that such waste can be otherwise legally be disposed.

Status – The facility remained in compliance with this condition in 2018.

WM-04 If Project Owner stores hazardous waste onsite for more than 90 days, it shall obtain a determination that the requirements for storing hazardous waste at the facility have been satisfied.

Status - The facility remained in compliance with this condition in 2018.

WM-05 Project Owner shall use only licensed hazardous waste haulers for transporting hazardous wastes.

Status – The facility remained in compliance with this condition in 2018. Coles Environmental Services, a contracted California licensed hazardous waste hauler, was used in 2018 for handling and disposing of facility wastes.

Attachments:

1 Operating, Availability and Capacity Report
2 Title V Annual Certification Report
3 Annual Facility Emission Report

Attachment 1

2018 Operating, Availability and Capacity Report

CONFIDENTIAL

Data Source: Calpine GADS (excludes divested / retired sites)	Year	Period	ENERGY FACTORS: NET ACTUAL GENERATION	ENERGY FACTORS: NET CAPACITY FACTOR	ENERGY FACTORS: NET OUTPUT FACTOR	STARTS: STARTING RELABILITY	Y-CYCLE INDICAT: SERVICE FACTOR	TIME-BASED FACTORS: AVAILABILITY FACTOR	TIME-BASED FACTORS: SCHEDULED OUTAGE FACTOR	TIME-BASED FACTORS: FORCED OUTAGE FACTOR	OUTAGE RATES: FORCED OUTAGE RATE	FUEL: NET HEAT RATE	FUEL: TOTAL Btus
plantname	Year	Period	na_gen	ncf	nof	start_rel	sef	af	sof	fof	for	nhr	ttl_btus
KING CITY COGEN	2018	01	36,690	39.77	90.84	100.00	43.78	100.00	0.00	0.00	0.00	8,457	310278696000
KING CITY COGEN	2018	02	31,455	38.06	91.22	100.00	41.72	99.95	0.00	0.05	0.11	8,472	266498196000
KING CITY COGEN	2018	03	26,316	28.80	90.94	86.49	31.66	67.70	31.97	0.33	1.05	8,435	221979996000
KING CITY COGEN	2018	04	29,148	33.18	91.51	100.00	36.26	81.57	18.43	0.00	0.00	8,487	247371616000
KING CITY COGEN	2018	05	36,086	39.76	92.23	100.00	43.10	99.95	0.05	0.00	0.00	8,565	309056244000
KING CITY COGEN	2018	06	33,752	38.74	92.03	100.00	42.10	99.57	0.43	0.00	0.00	8,561	288966398000
KING CITY COGEN	2018	07	34,477	38.62	92.11	100.00	41.92	100.00	0.00	0.00	0.00	8,533	294206357000
KING CITY COGEN	2018	08	37,774	42.31	92.89	100.00	45.55	100.00	0.00	0.00	0.00	8,653	326860555000
KING CITY COGEN	2018	09	31,048	35.93	92.63	97.44	38.79	97.21	2.50	0.29	0.75	8,697	270025710000
KING CITY COGEN	2018	10	29,873	33.18	92.65	100.00	35.82	84.44	15.56	0.00	0.00	8,561	255737040000
KING CITY COGEN	2018	11	30,063	34.18	83.41	97.56	40.98	81.03	18.93	0.05	0.11	8,812	264910320000
KING CITY COGEN	2018	12	17,756	19.25	89.27	100.00	21.56	63.88	36.12	0.00	0.00	8,614	152951348000
KING CITY COGEN	2018	YTD	374,436	35.08	91.05	98.51	38.53	89.45	10.49	0.06	0.15	8,570	3208842476000

CALPINE NERC GADS DATABASE
GADS ANALYSIS & REPORTING

Operating Data Summary

January 2018 Through December 2018

MONTH	GENERATION MWh GROSS	GENERATION MWh NET	STARTS ATT	STARTS ACT	SERVICE HOURS	OUTAGE HOURS	PRIMARY FUEL QUANTITY BURNED	SECONDARY FUEL QUANTITY BURNED	HEAT RATE Btu/kWh GROSS	HEAT RATE Btu/kWh NET
KING CITY COMBINED CYCLE - COGEN										
2018										
Jan 2018	37,951	36,690	44	44	644.30	0.00			8,175	8,456
Feb 2018	32,545	31,455	38	38	553.97	0.98			8,188	8,472
Mar 2018	27,283	26,316	37	32	464.90	481.28			8,136	8,435
Apr 2018	30,172	29,148	36	36	515.53	265.77			8,198	8,486
May 2018	37,357	36,086	44	44	634.65	0.80			8,272	8,564
Jun 2018	34,969	33,752	42	42	599.63	6.45			8,263	8,561
Jul 2018	35,713	34,477	42	42	617.02	0.00			8,238	8,533
Aug 2018	39,119	37,774	46	46	670.96	0.00			8,355	8,653
Sep 2018	32,163	31,048	39	38	552.35	40.70			8,395	8,697
Oct 2018	30,943	29,873	36	36	526.98	231.50			8,264	8,560
Nov 2018	31,144	30,063	41	40	583.42	276.41			8,506	8,811
Dec 2018	18,264	17,756	24	24	316.07	537.97			8,374	8,614
2018	387,622	374,436	469	462	6,679.78	1,841.86			8,278	8,569

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January 2018 Through December 2018

MONTH	GENERATION MWh		STARTS		SERVICE HOURS	OUTAGE HOURS	PRIMARY FUEL QUANTITY BURNED	SECONDARY FUEL QUANTITY BURNED	HEAT RATE Btu/kWh	
	GROSS	NET	ATT	ACT					GROSS	NET
KING CITY COMBINED CYCLE - COGEN										
Totals for all specified time periods										
TOTALS	387,622	374,436	469	462	6,679.78	1,841.86			8,278	8,569

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MONTH	GENERATION MWh GROSS	GENERATION MWh NET	STARTS ATT	STARTS ACT	SERVICE HOURS	OUTAGE HOURS	PRIMARY FUEL QUANTITY BURNED	SECONDARY FUEL QUANTITY BURNED	HEAT RATE Btu/kWh GROSS	HEAT RATE Btu/kWh NET
KING CITY CT1										
2018										
Jan 2018	26,497	25,501	22	22	331.40	0.00	299.208 MMcf GG	0.000	11,709	12,167
Feb 2018	22,795	21,927	19	19	285.80	0.00	256.742 MMcf GG	0.000	11,691	12,153
Mar 2018	19,049	18,321	19	16	239.81	238.99	215.724 MMcf GG	0.000	11,652	12,116
Apr 2018	21,061	20,258	18	18	266.53	132.30	243.476 MMcf GG	0.000	11,745	12,211
May 2018	26,003	25,004	22	22	326.24	0.38	296.884 MMcf GG	0.000	11,885	12,360
Jun 2018	24,246	23,299	21	21	308.25	2.90	277.319 MMcf GG	0.000	11,918	12,402
Jul 2018	24,642	23,681	21	21	317.37	0.00	283.163 MMcf GG	0.000	11,939	12,423
Aug 2018	27,119	26,066	23	23	344.33	0.00	313.385 MMcf GG	0.000	12,052	12,539
Sep 2018	22,377	21,508	20	19	284.35	19.73	259.890 MMcf GG	0.000	12,067	12,554
Oct 2018	21,513	20,687	18	18	271.15	115.75	245.901 MMcf GG	0.000	11,887	12,362
Nov 2018	21,880	20,979	20	20	301.18	134.65	255.952 MMcf GG	0.000	12,107	12,627
Dec 2018	12,794	12,404	12	12	164.17	268.40	147.922 MMcf GG	0.000	11,955	12,330
2018	269,975	259,634	235	231	3,440.58	913.10			11,885	12,359

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January 2018 Through December 2018

MONTH	GENERATION MWh GROSS	GENERATION MWh NET	STARTS ATT	STARTS ACT	SERVICE HOURS	OUTAGE HOURS	PRIMARY FUEL QUANTITY BURNED	SECONDARY FUEL QUANTITY BURNED	HEAT RATE Btu/kWh GROSS	HEAT RATE Btu/kWh NET
KING CITY CT1										
Totals for all specified time periods										
TOTALS	269,975	259,634	235	231	3,440.58	913.10			11,885	12,359

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January 2018 Through December 2018

MONTH	GENERATION MWh GROSS	GENERATION MWh NET	STARTS ATT	STARTS ACT	SERVICE HOURS	OUTAGE HOURS	PRIMARY FUEL QUANTITY BURNED	SECONDARY FUEL QUANTITY BURNED	HEAT RATE Btu/kWh GROSS	HEAT RATE Btu/kWh NET
KING CITY ST1										
2018										
Jan 2018	11,454	11,189	22	22	312.90	0.00	0.000 WH	0.000	0	0
Feb 2018	9,750	9,528	19	19	268.17	0.98	0.000 WH	0.000	0	0
Mar 2018	8,234	7,995	18	16	225.09	242.29	0.000 WH	0.000	0	0
Apr 2018	9,111	8,890	18	18	249.00	133.47	0.000 WH	0.000	0	0
May 2018	11,355	11,081	22	22	308.41	0.42	0.000 WH	0.000	0	0
Jun 2018	10,723	10,453	21	21	291.38	3.55	0.000 WH	0.000	0	0
Jul 2018	11,071	10,796	21	21	299.65	0.00	0.000 WH	0.000	0	0
Aug 2018	12,000	11,709	23	23	326.63	0.00	0.000 WH	0.000	0	0
Sep 2018	9,786	9,540	19	19	268.00	20.97	0.000 WH	0.000	0	0
Oct 2018	9,430	9,187	18	18	255.83	115.75	0.000 WH	0.000	0	0
Nov 2018	9,264	9,084	21	20	282.24	141.76	0.000 WH	0.000	0	0
Dec 2018	5,471	5,351	12	12	151.90	269.57	0.000 WH	0.000	0	0
2018	117,648	114,802	234	231	3,239.20	928.76			0	0

CALPINE NERC GADS DATABASE
GADS ANALYSIS & REPORTING

Operating Data Summary

January 2018 Through December 2018

MONTH	GENERATION MWh		STARTS		SERVICE HOURS	OUTAGE HOURS	PRIMARY FUEL QUANTITY BURNED	SECONDARY FUEL QUANTITY BURNED	HEAT RATE Btu/kWh	
	GROSS	NET	ATT	ACT					GROSS	NET
KING CITY ST1										
Totals for all specified time periods										
TOTALS	117,648	114,802	234	231	3,239.20	928.76			0	0

CALPINE NERC GADS DATABASE
GADS ANALYSIS & REPORTING

Operating Data Summary

January 2018 Through December 2018

MONTH	GENERATION MWh GROSS	GENERATION MWh NET	STARTS ATT	STARTS ACT	SERVICE HOURS	OUTAGE HOURS	PRIMARY FUEL QUANTITY BURNED	SECONDARY FUEL QUANTITY BURNED	HEAT RATE Btu/kWh GROSS	HEAT RATE Btu/kWh NET

January 2018 Through December 2018

The following Group was selected
KING CITY COMBINED CYCLE - COGEN

Attachment 2

2018 Title V Annual Certification Report

CERTIFICATION REPORT
(FORM 218-K1)

DISTRICT:	< DISTRICT USE ONLY =
MBUAPCD	DISTRICT ID:
COMPANY NAME: Calpine King City Cogeneration, LLC and Gilroy Energy Center, LLC	FACILITY NAME: Calpine King City Cogeneration, LLC and Gilroy Energy Center, LLC

I. FACILITY INFORMATION

1. Company Name: Calpine King City Cogeneration, LLC and Gilroy Energy Center, LLC for King City
2. Facility Name (if different than Company Name): Calpine King City Cogeneration, LLC & Gilroy Energy Center, LLC for King City
3. Mailing Address: 750 Metz Road, King City, CA 93930
4. Street Address or Source Location: 750 Metz Road, King City, CA and 51 Don Bates Way, King City, CA 93930
5. Facility Permit Number: TV-0000012

II. GENERAL INFORMATION

1. Reporting period (specify dates): 1/1/2018 – 12/31/2018
2. Due date for submittal of report: 2/15/19

3. Type of submittal: [ ] Monitoring Report (complete Section III below)
   [ ] Compliance Schedule Progress Report (complete Section IV of Form 218-K2)
   [X] Compliance Certification (complete Section V of Form 218-K2)

III. MONITORING REPORT INFORMATION

1. Were deviations from monitoring requirements encountered during the reporting period?
   [X] No [ ] Yes

2. Were deviations from permit conditions discovered during the required monitoring?
   [X] No [ ] Yes (If Yes, complete Form 218-L or a summary of previously reported deviations)

CERTIFICATION REPORT
(FORM 218-K2)

DISTRICT:	< DISTRICT USE ONLY =
MBUAPCD	DISTRICT ID:
COMPANY NAME: Calpine King City Cogeneration, LLC and Gilroy Energy Center, LLC	FACILITY NAME: Calpine King City Cogeneration, LLC and Gilroy Energy Center, LLC

IV. COMPLIANCE SCHEDULE PROGRESS INFORMATION

1. Dates the activities, milestones, or compliance required by schedule of compliance was achieved/will be achieved:

2. Provide explanation of why any dates in schedule of compliance were not/will not be met:

3. Describe in chronological order preventive or corrective action taken:

V. COMPLIANCE CERTIFICATION

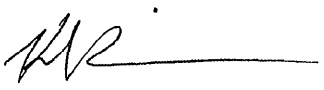
1. Was source in compliance during the reporting period specified in Section II of Form 218-K1?

   [X] Yes [ ] No (If no, document period(s) of noncompliance or resubmit Forms 218-I and J) See form 218-L

2. Is source currently in compliance with all applicable federal requirements and permit conditions?

   [X] Yes [ ] No

I certify based on information and belief formed after reasonable inquiry, the statement and information in this document and supplements are true, accurate, and complete.

Signature of Responsible Official  Date: February 7, 2019

Print Name of Responsible Official: Kevin Karwick

Title of Responsible Official and Company Name: General Plant Manager, Power Ops West, Calpine Corp.

Telephone Number of Responsible Official: (408) 337-3429

DEVIATION REPORT
(FORM 218-L)

DISTRICT:	< DISTRICT USE ONLY =
MBUAPCD	DISTRICT ID:
COMPANY NAME: Calpine King City Cogeneration, LLC and Gilroy Energy Center, LLC	FACILITY NAME: Calpine King City Cogeneration, LLC and Gilroy Energy Center, LLC

I. DEVIATION INFORMATION

1. Permit number(s) of emission unit or control unit affected:

2. Description of deviation:

3. Description and identification of permit condition(s) deviated:

4. Associated equipment and equipment operation (if any):

5. Date and time when deviation was discovered:

6. Date, time and duration of deviation:

7. Probable cause of deviation:

8. Preventive or corrective action taken:

COMPLIANCE CERTIFICATION REPORT ATTACHMENT FOR CALPINE KING CITY COGEN AND GILROY ENERGY CENTER

Reporting Period: January 1, 2018 to December 31, 2018

TV-0000012-Effective March10, 2017

CONDITION	COMPLIANCE STATUS (CONTINUOUS OR Continuous)	METHOD USED TO DETERMINE COMPLIANCE STATUS
1	Continuous Compliance	CEM and Annual Compliance Tests
2	Continuous Compliance	CEM and Annual Compliance Tests
3	Continuous Compliance	CEM and Annual Compliance Tests
4	Continuous Compliance	CEM
5	Continuous Compliance	CEM and Annual Compliance Tests
6	Continuous Compliance	CEM and Annual Compliance Tests
7	Continuous Compliance	CEM & Plant data
8	Continuous Compliance	CEM & Annual compliance test.
9	Continuous Compliance	CEM & Annual compliance test
10	Continuous Compliance	CEM & Annual compliance test.
11	Continuous Compliance	CEM
12	Continuous Compliance	No fuel oil fired
13	Continuous Compliance	No fuel oil fired
14	Continuous Compliance	No fuel oil fired
15	Continuous Compliance	No fuel oil fired
16	Continuous Compliance	No fuel oil fired
17	Continuous Compliance	No fuel oil fired
18	Continuous Compliance	Logbook,MBUAPCD notification, Annual Report
19	Continuous Compliance	Logbook and MBUAPCD notification
20	Continuous Compliance	Protocol on-site and reviewed as needed
21	Continuous Compliance	CEM and Plant data. No fuel oil fired
22	Continuous Compliance	CEMS, Quarterly Facility Emissions Report
23	Continuous Compliance	Did not fire on No. 2 fuel oil
24	Continuous Compliance	CEC Compliance Report

COMPLIANCE CERTIFICATION REPORT ATTACHMENT FOR
CALPINE KING CITY COGEN AND GILROY ENERGY CENTER
Reporting Period: January 1, 2018 to December 31, 2018
TV-0000012-Effective March10, 2017

CONDITION	COMPLIANCE STATUS (CONTINUOUS OR Continuous)	METHOD USED TO DETERMINE COMPLIANCE STATUS
25	Continuous Compliance	CRO Logs and Maintenance Records
26	Continuous Compliance	CEM and Plant data
27	Continuous Compliance	Operational records, calculations & CEM
28	Continuous Compliance	No chromium in water treatment chemicals, MSDS
29	Continuous Compliance	SO2 Allowance account established and necessary deposits made.
30	Continuous Compliance	Plant records/ CRO Logs
31	Continuous Compliance	Air Monitoring station operated
32	Continuous Compliance	RMP document and records maintained
33	Continuous Compliance	Refrigeration Contractors EPA Certified
34	Continuous Compliance	Testing and subsequent reporting completed
35	Continuous Compliance	Testing and subsequent reporting completed
36	Continuous Compliance	Testing and subsequent reporting completed
37	Continuous Compliance	No fuel oil fired
38	Continuous Compliance	No fuel oil delivered for turbine or boilers
39	Continuous Compliance	Lab tests for TDS, monthly reports
40	Continuous Compliance	Lab tests for TDS, monthly reports
41	Continuous Compliance	No fuel oil fired
42	Continuous Compliance	CEMS, Plant Records
43	Continuous Compliance	CEMS, Monthly Reports
44	Continuous Compliance	CEM Records
45	Continuous Compliance	CEMS Records
46	Continuous Compliance	QA/QC Plan, Operational Records
47	Continuous Compliance	CEM Records; Operational Records
48	Continuous Compliance	CEM Records, Plant DCS

COMPLIANCE CERTIFICATION REPORT ATTACHMENT FOR CALPINE KING CITY COGEN AND GILROY ENERGY CENTER
Reporting Period: January 1, 2018 to December 31, 2018
TV-0000012-Effective March10, 2017

CONDITION	COMPLIANCE STATUS (CONTINUOUS OR Continuous)	METHOD USED TO DETERMINE COMPLIANCE STATUS
49	Continuous Compliance	CEMS, Breakdown Reports, Plant Records
50	Continuous Compliance	CEMS records and Plant DCS
51	Continuous Compliance	Plant DCS and Plant Records
52	Continuous Compliance	Plant DCS and Plant Records
53	Continuous Compliance	Plant Records/CRO Log
54	Continuous Compliance	Plant DCS and Plant Records - no oil firing
55	Continuous Compliance	Data provided as requested
56	Continuous Compliance	Records maintained
57	Continuous Compliance	Records maintained
58	Continuous Compliance	No breakdown relief requested
59	Continuous Compliance	Reports submittedon time, as required
60	Continuous Compliance	Reports submittedon time, as required
61	Continuous Compliance	Reports submittedon time, as required
62	Continuous Compliance	Reports submittedon time, as required
63	Continuous Compliance	In compliance with permit conditions
64	Continuous Compliance	No enforcement action
65	Continuous Compliance	No cause for action determined by District
66	Continuous Compliance	No rights conveyed by permit
67	Continuous Compliance	Data provided upon request
68	Continuous Compliance	All requirements met
69	Continuous Compliance	All requirements met
70	Continuous Compliance	No violations reported
71	Continuous Compliance	No deviations reported

COMPLIANCE CERTIFICATION REPORT ATTACHMENT FOR
CALPINE KING CITY COGEN AND GILROY ENERGY CENTER
Reporting Period: January 1, 2018 to December 31, 2018
TV-0000012-Effective March10, 2017

CONDITION	COMPLIANCE STATUS (CONTINUOUS OR Continuous)	METHOD USED TO DETERMINE COMPLIANCE STATUS
72	Continuous Compliance	No admiistrative or judicial challenges
73	Continuous Compliance	Annual emission fee paid
74	Continuous Compliance	TV-0000012 on file and posted at facility

Attachment 3

2018 Annual Facility Emission Report

2018
December

Gilroy Energy Center 2018	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
NOx Emissions	0	16	1031	259	1306
CO Emissions	0	6	438	94	539
PM-10 Emissions	0	4	388	77	469
VOC Emissions	0	2	188	36	226
SOx Emissions	0	1	49	9	59
NH3 Emissions	0	7	400	67	474

King City Cogen 2018	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
NOx Emissions	25,266	26,058	27,130	20,737	99,192
CO Emissions	3,274	3,291	3,328	3,022	12,914
PM-10 Emissions	2,886	1,718	1,801	1,383	7,788
VOC Emissions	228	239	250	190	907
SOx Emissions	119	123	129	99	470
NH3 Emissions	4,506	3,375	827	1,182	9,890

Total King City 2018	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
NOx Limit (lbs)	72,452	73,178	73,905	73,905	293,440
NOx Emissions	25,266	26,074	28,161	20,996	100,498
CO Limit (lbs)	58,445	59,095	59,744	59,744	237,028
CO Emissions	3,274	3,297	3,766	3,116	13,453
PM-10 Limit (lbs)	12,071	12,204	12,339	12,339	48,953
PM-10 Emissions	2,886	1,722	2,189	1,460	8,256
VOC Limit (lbs)	4,762	4,815	4,868	4,868	19,313
VOC Emissions	228	241	437	227	1,133
SOx Limit (lbs)	1,748	1,768	1,787	1,787	7,090
SOx Emissions	119	124	178	109	529
NH3 Emissions	4,506	3,382	1,227	1,249	10,364