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December 14, 2010

Ms. Melissa Jones
Executive Director
California Energy Commission
South Coast Air Quality Management District
1516 Ninth Street
Sacramento, CA 95814

Subject: Walnut Creek Energy Park, Application for Certification (Docket No. 05-AFC-2C)
Request for Amendment of Final Commission Decision (CEC-800-2008-002-CMF)

Dear Ms. Jones:

The enclosed petition informs the California Energy Commission ("Commission") of an anticipated change of ownership of Walnut Creek Energy, LLC (WCE) and requests modifications to the air quality Conditions of Certification regarding offset requirements and minor air quality clarifications in the Final Commission Decision, CEC-800-2009-002-CMF ("Commission Decision"). WCE has also requested a revised Determination of compliance (DOC) from the South Coast Air Quality Management District (SCAQMD).

Anticipated Change of Ownership of WCE

AES Southland Holdings, LLC (AES) has entered into a conditional agreement with Edison Mission Energy (EME) under which AES Walnut Creek, LLC (AWC, a majority-owned subsidiary of AES), would acquire 100 percent of WCE, upon obtaining certain consents and issuance of a revised DOC by SCAQMD for the Walnut Creek Energy Park (WCEP) and subsequent decision by the Commission to amend the facility license. Under the agreement with EME (the current owner of WCE), AES would (subject to obtaining certain consents and receipt of all necessary construction permits for the WCEP) replace its Huntington Beach (HB) utility boilers 3 and 4 to qualify WCEP for the offset exemption available under SCAQMD Rule 1304(a)(2) for the replacement of electric utility steam boilers.

Modifications to Air Quality Conditions of Certification

This petition requests modifications to the discussion of air emissions offset requirements, minor clarifications and changes to six (6) air quality conditions of certification. The requested changes do not involve modifications to any of the power plant equipment, facility design or operating parameters as analyzed by the Commission in the Commission Decision. WCE and AWC propose to modify the discussion of offsets to include replacing aging existing utility steam boiler equipment

(HB utility boilers 3 and 4) with advanced intercooled gas turbines pursuant to SCAQMD Rule 1304(a)(2) in combination with emission reduction credits (ERCs) banked pursuant to District Rule 1309.

WCE and AWC also seek a minor modification to permit conditions to resolve an inconsistency between the Final DOC and the requirements of WCE's Power Purchase Agreement (PPA) regarding the number of startups/shutdowns and operating hours permitted per year. The proposed modifications would remain within the limits previously analyzed by both the Commission and SCAQMD in the Commission Decision and the 2007 Final DOC, as amended in 2008. The Commission Decision permitted the use of either banked ERCs from the market or credits from the SCAQMD's Priority Reserve Account under Rule 1309.1, as amended at that time. Priority Reserve credits under Rule 1309.1 are no longer available to WCE to offset the WCEP's emissions since the August 3, 2007 Rule 1309.1 amendments have been rescinded. This request ensures replacement of existing utility boilers with advanced gas turbines in the SCAQMD and provides fast start and ramping capability to support the expansion of renewable generation.

In furtherance of this request, WCE and AWC ask that the following individuals be added to the service list for this request:

Stephen O'Kane
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Please do not hesitate to contact us if you have any questions regarding this request.

WCE and AWC hereby attest under penalty of perjury to the truth and accuracy of this letter and the following Petition to Amend the Commission Decision.

Sincerely,

Lawrence J Kostrzewa
Vice President
Walnut Creek Energy, LLC

Eric Pendergraft
President
AES Walnut Creek, LLC

cc: Dale Rundquist, Compliance Project Manager
Kevin Bell, Senior Staff Council

Petition for Amendment

Air Quality Conditions of Certification

for the

Walnut Creek Energy Park

City of Industry, California

(05-AFC-02C)

Submitted to the:

California Energy Commission

Submitted by:

Walnut Creek Energy, LLC

With Technical Assistance by:

CH2MHILL

Sacramento, California

December 2010

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Acronyms and Abbreviations

µg/m^3	microgram(s) per cubic meter
AES	AES Southland Holdings, LLC
AFC	Application for Certification
BACT	Best Available Control Technology
CAISO	California Independent System Operator
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CO	carbon monoxide
COC	Condition of Certification
DOC	Determination of Compliance
EME	Edison Mission Energy
EPA	U.S. Environmental Protection Agency
ERC	emission reduction credit
FDOC	Final Determination of Compliance
HB	Huntington Beach
LORS	laws, ordinances, regulations, and standards
MMBtu/MWh	million British thermal units per megawatt hour
MW	megawatt(s)
NAAQS	National Ambient Air Quality Standards
NO_X	oxides of nitrogen
NSR	New Source Review
PM	particulate matter
PM10	particulate matter less than 10 microns in equivalent diameter
PPA	power purchase agreement
ppm	part(s) per million
PRA	Priority Reserve Account

PRC	Priority Reserve Credit
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
RECLAIM	Regional Clean Air Incentives Market
RTC	RECLAIM Trading Credits
SCAQMD	South Coast Air Quality Management District
SO_2	sulfur dioxide
SO_X	oxides of sulfur
tpy	ton(s) per year
VOC	volatile organic compound
WCE	Walnut Creek Energy, LLC
WCEP	Walnut Creek Energy Park

Executive Summary

Walnut Creek Energy, LLC (WCE) petitions the California Energy Commission to amend the certification for Walnut Creek Energy Park (WCEP) (05-AFC-02C). WCE requests revisions to several air quality Conditions of Certification (COC) set forth in the February 2008 certification for WCEP. The changes requested include modifications to the mitigation measures regarding emission offsets, an increase in startups, and a reduction in the CO emission limit. Specifically, WCE requests changes to COC AQ-SC7 and AQ-SC8 and the addition of AQ-19 regarding offsets for emissions of particulate matter (PM), SO_X and VOC; AQ-3 regarding the number of start-ups per year; AQ-4 to lower the CO emissions limit; and AQ-16 regarding the NO_X RECLAIM Trading Credit obligation. This petition does not involve modifications to the power plant equipment or the facility design.

The requested changes to the air quality COCs are the result of a newly proposed ownership structure for WCE and the WCEP and take into account the current severe scarcity of emission reduction credits (ERCs) in the South Coast Air Basin and the rescission of the amendment to the South Coast Air Quality Management District's (SCAQMD) Rule 1309.1 that previously permitted power plants to obtain offsets from their Priority Reserve Account (PRA). WCE proposes instead to offset the facility's emissions by retiring certified ERCs and a partial offset exemption under SCAQMD Rule 1304(a)(2) for replacing older steam boiler equipment with newer quick-start and more efficient advanced natural-gas-fired generation (existing COC AQSC-7 and AQSC-7 and new COC AQSC-19). AES Southland Holdings, LLC (AES) is the parent company of subsidiaries that wholly own 4,258 megawatts of basin-wide electricity generating capacity in the South Coast Air Basin, including AES Huntington Beach, LLC. AES Walnut Creek, LLC, has been formed as a subsidiary of, and majority-owned by, AES and would become the 100-percent owner of WCE and AES would retire its Huntington Beach Units 3 and 4 per the requirements of Rule 1304.

WCE also seeks to resolve an inconsistency between the Decision, SCAQMD's Final Determination of Compliance (FDOC), and the requirements of WCE's Power Purchase Agreement (PPA) regarding the number of startups per year (COC AQ-3) and to modify the COCs to clarify the use of interpollutant trades to offset the facility's emissions (COC AQSC-7). WCE also seeks to lower the emission limit for CO from 6 parts per million (ppm) to 4 ppm, to reflect a change in best available control technology (BACT) (COC AQ-4). Finally, WCE seeks to increase the project's NO_X RECLAIM Trading Credit obligation to be consistent with increased startups (AQ-16).

The revisions to the COC for WCEP, as proposed, will not cause significant adverse impacts to the environment and will not cause environmental impacts substantially different than those addressed in the Commission Decision. The proposed project revisions are consistent with all applicable LORS. This Petition for Amendment is based on a change in SCAQMD rules and is not based on new information that changes or undermines any other basis for the final Decision.

SECTION 1.0

Introduction

1.1 Overview

Walnut Creek Energy, LLC (WCE) petitions the California Energy Commission (CEC or Commission) to amend the certification for Walnut Creek Energy Park (WCEP) (05-AFC-02C). This amendment would involve modifications to several air quality Conditions of Certification (COC). Note that COCs with the prefix AQSC- are conditions of the CEC Staff and COCs with the prefix AQ- are conditions of the South Coast Air Quality Management District (SCAQMD). The proposed project revisions are consistent with all applicable LORS. This Petition for Amendment is based on a change in SCAQMD rules and is not based on new information that changes or undermines any other basis for the final Decision. Table 1-1 presents the COCs that WCE is seeking to amend.

TABLE 1-1
Conditions of Certification to Be Amended

Condition of Certification	Amendment Requested
AQSC-7, AQSC-8, and AQ-19 (new)	Recognize emission reduction credit exemption allowed by Rule 1304(a)(2) as a result of decommissioning HB Units 3 and 4, and stipulate offset requirements for non-exempt emissions
AQSC-7	Specify interpollutant trade ratios for PM and SO_X
AQ-3	Increase the number of startups from 350 to 480
AQ-4	Decrease the carbon monoxide (CO) emission limit from 6 parts per million (ppm) to 4 ppm to meet new best available control technology (BACT) requirements
AQ-16	Increase the first year and second year NO_X RECLAIM Trading Credit obligations to reflect the increase in startups

This petition does not involve modifications to any of the power plant equipment or to the facility design.

The requested COC changes related to emission offsets (COCs AQSC-7, AQSC-8, and AQ-19) take into account the current severe scarcity of emission reduction credits (ERCs) in the South Coast Air Basin and the rescission of the amendment to SCAQMD's Rule 1309.1 that previously permitted power plants to obtain offsets from SCAQMD's Priority Reserve Account (PRA), also called Priority Reserve Credits (PRC). The Commission Decision allows the project owner to offset emissions either through the surrender of certified ERCs or through the PRA, per SCAQMD Rule 1309.1. However, because PRA offsets are no longer available, WCE proposes instead to meet the SCAQMD emissions offset requirements with a combination of certified ERCs and a partial (90.3 percent) exemption from providing ERCs as offsets that is offered under SCAQMD Rule 1304(a)(2) for replacing older existing utility steam boiler equipment with newer and more efficient advanced natural-gas-fired

generation. To achieve this, AES Southland Holdings, LLC (AES) and its subsidiary, AES Walnut Creek, LLC, would become the majority owner of WCE and would retire AES Huntington Beach (HB) Units 3 and 4.

1.2 Administrative History

WCE filed the WCEP Application for Certification (AFC) at the CEC under CEC Docket No. 05-AFC-2 in 2005 (WCE, 2005) and filed a Permit to Construct (PTC) application with SCAQMD at the same time under Facility ID #146546. Because the CEC has exclusive jurisdiction over permitting thermal power plants greater than 50 megawatts (MW) in California, the CEC requested a Determination of Compliance (DOC) from SCAQMD per SCAQMD's Rule 1301(b)(2)). SCAQMD issued the Final Determination of Compliance (FDOC) on February 14, 2007, and amended the FDOC on February 26, 2008, and its proposed conditions were incorporated into the CEC's Commission Decision, which certified the WCEP on February 27, 2008 (CEC, 2008).

SCAQMD Regulation XIII requires a demonstration that emission increases subject to the New Source Review (NSR) program do not interfere with the attainment or maintenance of any state or national ambient air quality standards for each applicable pollutant, unless adequate emissions offsets are provided. SCAQMD's FDOC and CEC's Decision require that WCE provide offsets for increases of oxides of nitrogen (NO_X), sulfur dioxide (SO_2), volatile organic compounds (VOC), CO, and particulate matter less than 10 microns in equivalent diameter (PM10) emissions, where PM10 offsets would serve as mitigation for both PM10 and PM2.5 emissions. The Decision found that WCEP would not cause air quality to exceed the state and national ambient air quality standards, and would not have a significant impact on the progress toward attainment of the state and federal annual and 24-hour average PM10 standards, which were already being exceeded. Furthermore, the Decision found that all air pollutants would be mitigated to a level of insignificance by use of BACT and retirement or surrender of emission offsets or credits, and would not cause an adverse cumulative impact.

Because of the need for new generation in the region and a severe shortage of ERCs for PM10 and SO_X (as a precursor to PM10), the Commission Decision includes a provision for WCE to offset PM and oxides of sulfur (SO_X) emissions using either traditional ERCs or those made available through SCAQMD's PRA. WCE has obtained offsets to mitigate emissions of NO_X, as a precursor to ozone, through SCAQMD's Regional Clean Air Incentives Market (RECLAIM) Trading Credit (RTC) program and for VOCs by purchase of ERCs on the open market.

The Commission Decision states:

> The SCAQMD has established a [sic] Priority Reserve Credits (PRCs) for SO_X, and PM10, requiring the Applicant to pay a mitigation fee to the District commensurate with the levels of emissions of each pollutant from the project and retire purchased credits at a ratio of 1.0:1.0, and continue to attempt to secure traditional ERCs for each pollutant (CEC, 2008:17).

SCAQMD's amendment to Rule 1309.1 to allow the SCAQMD to use credits from its PRA to offset power plant emissions was subsequently challenged in state court. The state court

found the California Environmental Quality Act (CEQA) analysis supporting the amendment to Rule 1309.1 allowing power plants access to ERCs to be inadequate, leading to its repeal in January 2010. For this reason, PRCs are not at this time available to WCEP under Rule 1309.1.

The need to replace aging, inefficient, inflexible, older existing generation resources (most of which are banned from continued use of once-through-cooling after 2020), combined with the inability to permit new sources, puts the southern California power grid at risk. Despite having undergone a CEQA-equivalent review by the CEC and having obtained all necessary permits, construction of the WCEP cannot take place until sufficient offsets are obtained or another path is identified for regulatory compliance. An exemption to the requirements for providing emission offsets per SCAQMD's Rule 1303, is allowed for electric generating plants under SCAQMD's Rule 1304(a)(2), and would significantly benefit air quality in the basin by retiring older, less efficient generation and replacing it with efficient and clean peaking generation that is capable of supporting the integration of renewable power and the overall stability of the grid. Senate Bill 826 (signed into law October 11, 2009), authorizes the SCAQMD to issue permits under the Rule 1304(a)(2) exemption through May 1, 2012.

1.3 Siting Regulations

This Petition for Amendment contains all of the information that is required pursuant to the CEC's Siting Regulations (California Code of Regulations [CCR] Title 20, Section 1769, Post Certification Amendments and Changes). The information necessary to fulfill the requirements of Section 1769 is provided in Sections 1.0 through 6.0, as summarized in Table 1-2.

TABLE 1-2
Information Requirements for Post-certification Modifications

Section 1769 Requirement	Section of Petition Fulfilling Requirement
(A) A complete description of the proposed modifications, including new language for any conditions that will be affected	Section 2.0—Proposed modifications Sections 3.1 to 3.15—Proposed changes to Conditions of Certification are located at the end of the Air Quality section
(B) A discussion of the necessity for the proposed modifications	Section 1.3
(C) If the modification is based on information that was known by the petitioner during the certification proceeding, an explanation why the issue was not raised at that time	Section 1.3
(D) If the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, an explanation of why the change should be permitted	Sections 1.4, 3.1
(E) An analysis of the impacts the modification may have on the environment and proposed measures to mitigate any significant adverse impacts	Section 3.1
(F) A discussion of the impact of the modification on the facility's ability to comply with applicable laws, ordinances, regulations, and standards	Section 3.1

TABLE 1-2
Information Requirements for Post-certification Modifications

Section 1769 Requirement	Section of Petition Fulfilling Requirement
(G) A discussion of how the modification affects the public	Section 4.0
(H) A list of property owners potentially affected by the modification	Section 5.0
(I) A discussion of the potential effect on nearby property owners, the public and the parties in the application proceedings	Section 6.0

1.4 Facility Ownership

WCE will own the WCEP, and WCE will be jointly owned by AES and Edison Mission Energy (EME) through the newly formed company AES Walnut Creek, LLC. AES will be the majority owner and is an independent power developer, owner, and operator engaged in the business of owning or leasing, operating, and selling energy and capacity from electric power generation facilities. EME is an independent power developer, owner, and operator engaged in the business of owning or leasing, operating, and selling energy and capacity from electric power generation facilities. WCE leases the property on which the WCEP will be built from the Industry Urban-Development Agency.

1.5 Necessity of Proposed Changes

The WCEP is currently licensed by the CEC, has a FDOC issued by SCAQMD, and has a 10-year PPA that was awarded in Southern California Edison's competitive bid process and approved by the California Public Utilities Commission and the Federal Energy Regulatory Commission. To meet the commitments in the PPA, construction must begin in mid-2011, with commercial operation and integration to the California grid by summer of 2013. The project began permitting in late 2005 and was found data adequate by the CEC on February 1, 2006. It received its license from the CEC in February 2008 after extensive public outreach and no significant opposition during any of the hearings conducted by the CEC and SCAQMD.

The Siting Regulations require a discussion of the necessity for the proposed revision to WCEP certification and whether the modification is based on information known by the petitioner during the certification proceeding (Title 20, CCR, Sections 1769 [a][1][B] and [C]). This Petition for Amendment requests approval to change COCs AQ-SC7 and AQ-SC8, and to add COC AQ-19, which are related to WCEP's air quality mitigation measures, specifically offsetting of particulate matter (PM10 and PM2.5), SO_2, and VOC emissions. This change is necessary because credits from SCAQMD's PRA are no longer available to the WCEP for these pollutants under the portion of Rule 1309.1 that was rescinded subsequent to CEC certification of the WCEP. The proposed changes to WCEP's certification include the recognition that the majority of WCEP's emissions would be exempt from a requirement to supply emission offsets under SCAQMD Rule 1304(a)(2) by replacing existing aging utility

boiler equipment with WCEP's more efficient and flexible generation. The COCs currently allow emission offsets using traditional ERCs or credits from SCAQMD's PRA.

The exemption under SCAQMD Rule 1304(a)(2) encourages the retirement of existing older and less efficient boilers with newer, quick-start, and more efficient equipment as long as any net increase in generation would be offset using other means. The proposed shutdown of existing aging utility steam boilers would help to support many significant public policy initiatives that will promote public health and clean air, and would result in a more effective mitigation strategy than the originally proposed use of the PRA credits.

Under the Rule 1304(a)(2) exemption, WCEP's emissions will be offset in compliance with the Clean Air Act through a debit to SCAQMD's internal credit bank, the same source that CEC has already reviewed and accepted in WCEP's license by using the PRA and Rule 1309.1.

In addition, this amendment seeks to reduce the WCEP's CO emission limit from 6 ppm as required by SCAQMD Permit Condition AQ-4, to 4 ppm to comply with new BACT requirements in the South Coast Air Basin; clarify the use of interpollutant trades to offset the WCEP's emissions in excess of the exemption; and correct an inconsistency in the SCAQMD Permit Condition AQ-3 between the Decision, the FDOC, and WCE's Power Purchase Agreement (PPA) regarding startups and shutdowns by requesting an increase in startups.

These changes are needed to support final permitting and construction of the WCEP. The WCEP will provide 500 MW of voltage support in the South Coast Air Basin, and five quick-starting, fast-ramping turbines that are essential to integrating renewable energy into the grid to meet the State of California's ambitious Renewable Portfolio Standards of 33 percent by 2020.

1.6 Objectives and Benefits of Proposed Changes

WCEP's offset exemption under Rule 1304(a)(2) would have the following significant benefits:

- Allow the earlier retirement of older, less-efficient power plant boilers.
- Allow the accelerated retirement of coastal plant boiler units that use once-through cooling, supporting the State Water Resources Control Board's Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, adopted May 4, 2010 and effective October 1, 2010. This will reduce impacts on marine life caused by once-through cooling.
- Replace inflexible and outmoded technology with state-of-the art peaking generation that is capable of starting and ramping up quickly to support the reliable integration of intermittent renewable generation to the grid.
- Reduce the basin-wide electrical generation potential to emit by replacing electric generating equipment with no operating restrictions with equipment limited to 4,000 operating hours per year, 40 start-up sequences per month, and two starts per day.

- Improve existing air quality in the South Coast Air Basin by retiring older, less-efficient generation and from the surrender of certified ERCs through interpollutant trade.

The following discussion outlines the importance of the WCEP to the South Coast Air Basin.

1.6.1 Quick-start and Fast-ramping Capability

The WCEP will provide quick-start and fast-ramping capability that can integrate and backup wind and solar renewable energy resources in the South Coast Air Basin that are inherently intermittent. The kind of voltage support that WCEP would provide is essential to support these renewable resources. Figure 1-1 shows an example of wind generation during a week of very high electrical demand in 2006. Wind generation is typically highly variable and, as the chart shows, is at or near its lowest when electrical demand is at its peak.

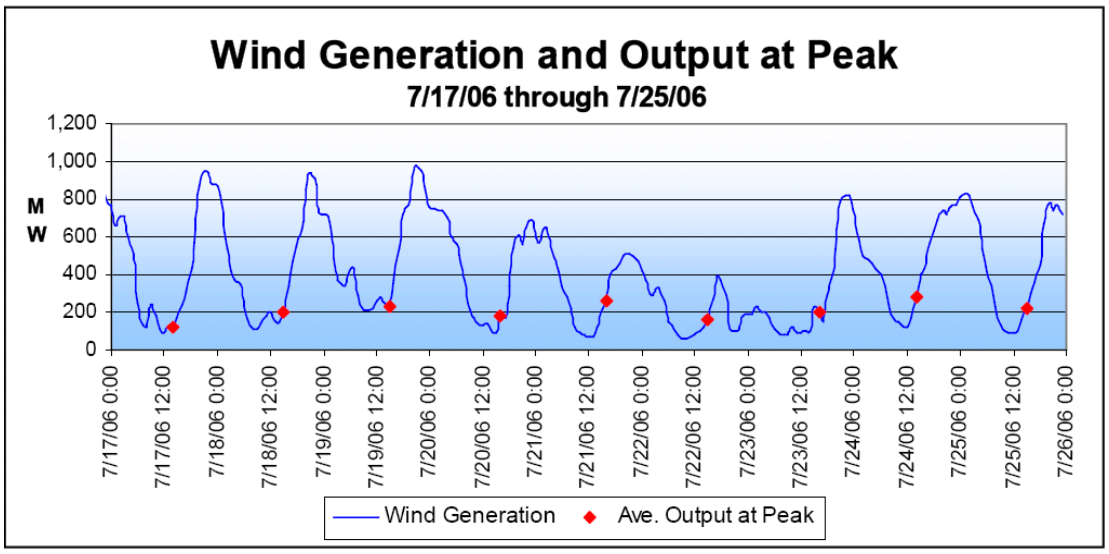


FIGURE 1-1
Example of Wind Generation Variability

The California Independent System Operator (CAISO) has clearly identified that fast-ramping, quick-start units are required for integration of renewable power generators to the system, and WCEP's 10-minute start time and fast-ramping capability is essential to provide this service.

The existing, aging power plants in the South Coast Air Basin cannot provide quick-start and fast-ramping voltage support services to the grid. Instead, they require long start times that often result in excess power dumped at negative pricing, as well as excess greenhouse gas emissions resulting from power generation that is not needed. Figure 1-3 demonstrates the frequency of negative pricing in May and June of 2010.

This figure is from CAISO's Monthly Market Performance Report for May and June 2010, and shows that most days in May and June experienced some degree of negative pricing as a result of over-generation. Over-generation occurs when more power is produced than can be used, even after all operating power plants are backed down to their minimum operating level. When this occurs, the wholesale grid electricity price becomes negative, reflecting the

need to pay neighboring states to accept CAISO's excess or to pay renewable electricity producers to curtail output. CAISO's Market Performance Reports for subsequent months show this problem continuing even in July and August when 3.6 percent and 1.9 percent, respectively, of all the hours in those months had negative real-time pricing.

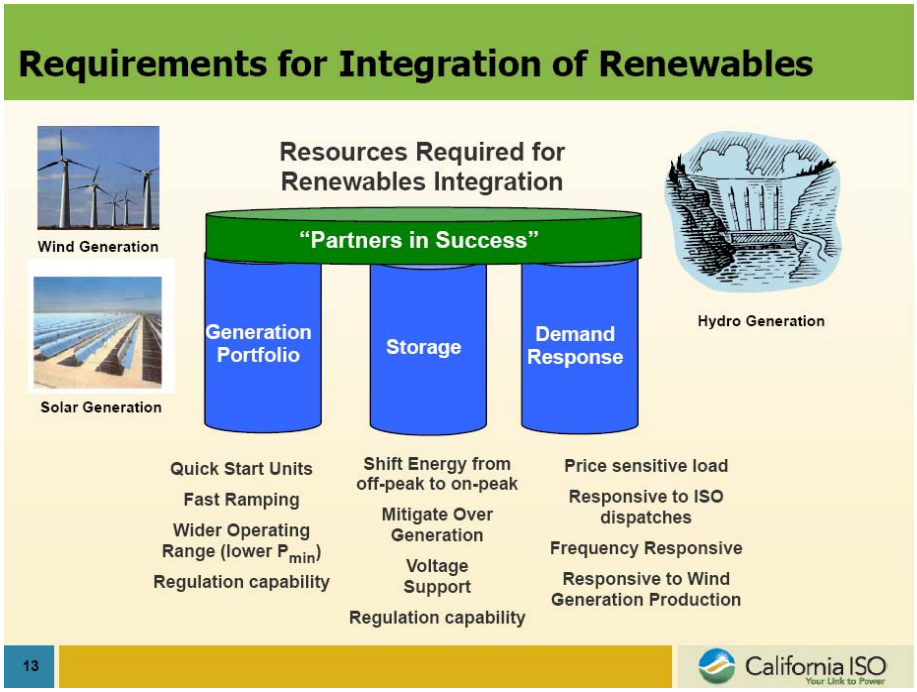


FIGURE 1-2
CAISO Resources Required for Renewables Integration
Source: CAISO

As wind generation increases, the need for reliable peaking generation for voltage support and wind load-following will increase. WCEP provides a plant that can easily turn on and off, and ramp production rapidly. The WCEP's 2013 operation date is timed to meet significant increases in intermittent electricity from 2009 through 2015, over 3,500 MW more than are online now. Increasing renewable capacity without flexible, quick-starting projects like WCEP will lead to a need to curtail wind generation and also to keep older power plants with higher emission rates running through non-peak hours so that they can be available during peak times.

For the older, utility steam boiler generating units, the average time to start operation when called is 6 to 12 hours. The time required to meet minimum generating output is 19 hours. These units do not have fast-ramping capability to adjust to highly variable renewable energy output. The WCEP units can be started in 10 minutes and have state-of-the-art, fast-ramping, highly efficient peaking capacity.

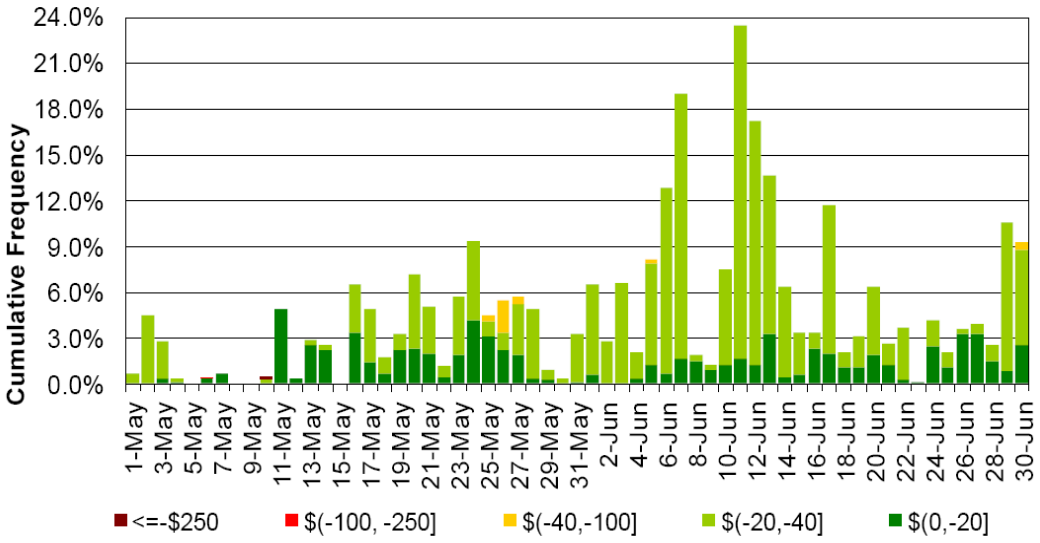


FIGURE 1-3
Example of Over-generation

1.6.2 Replacement of Older Generation

Decommissioning of aging power plants in the South Coast Air Basin will leave southern California short of the 10,000 MW of local capacity that CAISO requires. Fully 5,800 MW of the existing capacity in CAISO's Los Angeles Basin local reliability area is more than 46 years old, and 4,900 MW of this capacity uses once-through cooling that must be eliminated before 2020. In addition, fuel use of aging units averages 12.3 million British thermal units per megawatt hour (MMBtu/MWh), compared with 8.1 MMBtu/MWh for newer, more efficient combustion turbines like those that WCEP will use, leading to 34 percent lower emissions of greenhouse gases per megawatt-hour of generation.

Table 1-3 summarizes the existing local capacity in CAISO's Los Angeles Basin Local Reliability Area.

TABLE 1-3
Aging Power Plants in the Los Angeles Basin Local Reliability Area

Power Plant	Heat Rate*	Max Net MW	Year Built	Age	Once-through Cooling (OTC)
AES Alamitos 1	14.4	175	1956	54	Y
AES Alamitos 2	12.5	175	1957	53	Y
AES Alamitos 3	11.6	332	1961	49	Y
AES Alamitos 4	11.7	336	1962	48	Y
AES Alamitos 5	11.2	498	1969	41	Y
AES Alamitos 6	11.9	495	1966	44	Y

TABLE 1-3
Aging Power Plants in the Los Angeles Basin Local Reliability Area

Power Plant	Heat Rate*	Max Net MW	Year Built	Age	Once-through Cooling (OTC)
AES Huntington Beach 1	12.1	226	1958	52	Y
AES Huntington Beach 2	10.9	226	1958	52	Y
AES Huntington Beach 3	**11.6**	**225**	**1961**	**49**	**Y**
AES Huntington Beach 4	**11.4**	**227**	**1961**	**49**	**Y**
AES Redondo Beach 5	18.1	179	1954	56	Y
AES Redondo Beach 6	13.6	175	1957	53	Y
AES Redondo Beach 7	10.2	493	1967	43	Y
AES Redondo Beach 8	9.7	496	1967	43	Y
NRG El Segundo 3	28.4	321	1964	46	Y
NRG El Segundo 4	11.4	321	1965	45	Y
NRG Long Beach GT1	16.7	64	1976	34	N
NRG Long Beach GT2	16.1	64	1976	34	N
NRG Long Beach GT3	16.7	64	1976	34	N
NRG Long Beach GT4	17.1	64	1976	34	N
RRI Etiwanda 3	15.4	316	1963	47	N
RRI Etiwanda 4	14.1	316	1963	47	N
		5,786		Ave. 46	4,899 MW OTC

1.7 Consistency of Changes with Certification

The Siting Regulations also require a discussion of the consistency of the proposed project revision with the applicable laws, ordinances, regulations, and standards (LORS) and whether the modifications are based on new information that changes or undermines the assumptions, rationale, findings, or other basis of the final decision (Title 20, CCR Section 1769 [a][1][D]). If the project is no longer consistent with the certification, the Petition for Amendment must provide an explanation why the modification should be permitted.

The proposed project revisions are consistent with all applicable LORS. This Petition for Amendment is based on a change in SCAQMD rules and is not based on new information that changes or undermines any other basis for the final Decision. The findings and conclusions contained in the Commission Decision for WCEP (CEC, 2008) are still applicable to the project.

1.8 Summary of Environmental Impacts

The CEC Siting Regulations require that an analysis be conducted to address the potential impacts the proposed modifications may have on the environment, and proposed measures to mitigate any potentially significant adverse impacts (Title 20, CCR, Section 1769 [a][1][E]). The regulations also require a discussion of the impact of the modification on the facility's ability to comply with applicable LORS (Section 1769 [1][a][F]). Section 3.0 of this Petition for Amendment includes a discussion of the potential environmental impacts associated with the amendment, as well as a discussion of the consistency of the amendment with LORS. Because the changes to COCs requested are changes to the mitigation measures for air quality only, this petition does not include a discussion of other environmental disciplines. Section 3.0 concludes that no significant environmental impacts will be associated with implementing the actions specified in the Petition for Amendment and that the project as amended will comply with all applicable LORS.

1.9 Conditions of Certification

The amendments to certification identified in this petition would only involve changes to some of the air quality COCs. Specifically, it seeks to modify COCs related to mitigation of the project's emissions of particulate matter, SO_2, and VOC, and NO_X (AQSC-7, AQSC-8, AQ-19, and AQ-16). WCE also seeks to resolve an inconsistency between the Decision, SCAQMD's FDOC, and the requirements of WCE's PPA by increasing the number of startups (COC AQ-3), to modify a COC to clarify the use of interpollutant trades to offset the facility's emissions (AQSC-7), and to reduce the CO emission limit from 6 ppm to 4 ppm (COC AQ-4). The amendment does not involve changes to the WCEP equipment or project design.

1.10 References

California Energy Commission (CEC). 2008. Final Commission Decision on Walnut Creek Energy Park. California Energy Commission, Sacramento, California. February.

Walnut Creek Energy, LLC (WCE). 2005. Application for Certification for the Walnut Creek Energy Park. Submitted to the California Energy Commission. Submitted by Walnut Creek Energy, LLC.

SECTION 2.0

Description of Amendment

This section includes a description of the proposed project amendments, consistent with CEC Siting Regulations (Title 20, CCR, Section 1769 [a][1][A]). WCE proposes to change COCs related to air quality mitigation measures for PM10, VOC, and SO_X in the following ways:

- Add provisions under COCs AQSC-7 and AQSC-8, and add AQ-19 to recognize exemption of the WCEP's emissions from the requirement for offsets pursuant to SCAQMD Rule 1303(b)(2) through replacement of older existing utility steam boiler capacity with newer, cleaner, more efficient advanced gas turbine equipment, as allowed per Rule 1304(a)(2).
- Modify AQSC-7 to clarify the use of interpollutant trades to offset project emissions by stipulating interpollutant trading ratios under Rule 1309(h).
- Modify AQ-16 to increase the project's NO_X RECLAIM Trading Credit obligations consistent with the increase in startups.

In addition, WCE seeks a modification to the air quality conditions and permit that will resolve an inconsistency between the CEC Conditions, FDOC specifications, and WCE's PPA requirements, as follows:

- Modify AQ-3 to permit 480 startups and shutdowns per year and a maximum of two shutdowns per day

Finally, WCE seeks a modification to recognize a change in the BACT for CO.

- Modify AQ-4 to reduce the CO emission permit limit from 6 ppm to 4 ppm.

The requested changes to the license involve the offset program only and do not otherwise involve changes in project design or operation, or new emissions modeling. WCE has submitted a request to SCAQMD including a suggested amendment to SCAQMD's FDOC for the WCEP. This request has been filed with the CEC's Docket Unit.

2.1 Offset Exemption under SCAQMD Rule 1304

Because PRCs, the offset method stipulated in the WCEP Decision, are not currently available under Rule 1309.1 to offset WCEP's emissions of particulate matter and SO_X, WCE proposes modifications to COCs AQSC-7 and AQSC-8 and the addition of AQ-19 designating that the project owner may mitigate facility emissions through the replacement of existing in-basin utility steam boilers with advanced gas turbine technology as is permitted under SCAQMD Rule 1304(a)(2). Per the provisions of Rule 1304(a)(2), WCE would be partially exempt from providing market-based ERCs and WCEP's emissions will be mitigated in compliance with the Clean Air Act through a debit to SCAQMD's internal credit bank, the same source that CEC has already reviewed and accepted in WCEP's

license. In effect, the Rule 1304(a)(2) exemption results in retirement of the same or similar types of emission credits as would be the case using certified ERCs.

SCAQMD Rule 1304(a)(2) allows for replacement of older existing utility steam boiler capacity with new generation capacity as long as the new generation consists of intercooled or some other form of advanced gas turbine.

> Upon approval by the Executive Officer or designee, an exemption from the modeling requirement of Rule 1303 (b)(1) and the offset requirement of Rule 1303 (b)(2) shall be allowed, for the following sources…
>
> (2) Electric Utility Steam Boiler Replacement
>
> The source is replacement of electric utility steam boiler(s) with…intercooled, chemically-recuperated gas turbines, other advanced gas turbines(s)…to the extent that such equipment will allow compliance with Rule 1135 or Regulation XX rules. The new equipment must have a maximum electrical power rating (in megawatts) that does not allow basin-wide electricity generating capacity on a per-utility basis to increase. If there is an increase in basin-wide capacity, only the increased capacity must be offset.

Rule 1304(a)(2) is an exemption to traditional offsetting requirements that applies when it can result in the retirement of older electric utility steam boilers without a net increase in basin-wide capacity (per owner). As described in the AFC and Commission Decision, the turbines proposed for WCEP, GE Energy's LMS-100 turbines, are intercooled and advanced gas turbines.

District Rule 1135 further provides a definition of "boiler":

> …only units existing on July 19 1991, which are owned or operated by any one of the following: Southern California Edison, Los Angeles Department of Water and Power, City of Burbank, City of Glendale, and City of Pasadena, or any of their successors.

AES proposes to retire HB boiler units 3 and 4 (HB 3 and 4); these boilers meet the SCAQMD's definition of boiler stated above. HB 3 and 4 were previously owned by Southern California Edison, are now owned by AES, and were in operation before July 19, 1991. As stated previously, AES would become a majority owner of WCE as part of a transaction allowing retirement of HB 3 and 4 and their replacement with cleaner, more efficient WCEP generation. Under this circumstance, basin-wide electricity generating capacity on a per-utility basis would be replaced, meeting this requirement of Rule 1304(a)(2). HB 3 and 4 are rated at a capacity of 225 MW and 227 MW, respectively (total of 452 MW). WCEP's maximum generation capacity is 500.5 MW. WCE proposes to provide ERCs to offset the emissions from the 48.5 MW increase in generation above the combined generating capacity of HB 3 and 4.

SCAQMD Rules 1309.1 and 1315, pertaining to the SCAQMD's Priority Reserve Account, were invalidated under a legal decision, *Natural Resources Defense Council v. South Coast Air Quality Management District* (Super. Ct. Los Angeles County, 2007, No. BS 110792). In 2009,

the Legislature enacted Senate Bill 827 (SB 827), which allows the District to continue issuing permits:

> …in reliance on, and in compliance with, South Coast District Rule 1304, as amended on June 14, 1996, and Rule 1309.1, as amended May 3, 2002, for essential public services, as defined in subdivision (m) of Rule 1302, as amended December 6, 2002.

Both SCAQMD and the CEC have experience using District Rule 1304(a)(2), having used this rule to satisfy the offset requirements of the El Segundo Power Redevelopment Project. (See Commission Decision to the Amendment, CEC-800-2010-015, at 14, [June 2010]; Second Addendum to the Determination of Compliance for El Segundo Power LLC, Application No. 470652, at 5 and 28 [May 14, 2010].)

Proposed new COC AQ-19 is based on a similar condition found in the Commission Decision for the El Segundo project, and states a requirement to document shutdown of HB 3 and 4 and the replacement of its older utility steam boilers with clean and efficient natural-gas-fired generation units at WCEP.

As stated previously, Rule 1304(a)(2) requires the project owner to offset emissions for generation beyond the rated capacity of the older utility steam boiler generation that is replaced. In this case, HB 3 and 4 are rated at 452 MW, combined. The maximum power that WCEP can deliver to the grid, under the terms of WCE's Large Generator Interconnect Agreement with CAISO and SCE is 500.5 MW, leaving 48.5 MW of generation that need to be offset under Rule 1303(b)(2). The WCEP's offset obligation would therefore be proportional to the generation capacity increase. WCE would therefore provide traditional ERCs for 9.7 percent of its generation capacity. Offset obligations for WCEP would be as shown in Table 2-1. Calculations for emissions and offsets are provided in Attachment A.

TABLE 2-1
Required Offsets for Non-RECLAIM Pollutants (per-turbine basis, lb/day)[a]

	NO_X[b]	CO	VOC	SO_X	PM10
Maximum 30-Day Emissions Ave.	—	—	172	44	432
ERC Offset Ratio	—	—	1.2	1.2	1.2
Required Offsets using ERCs	—	—	207	53	519
Shortfall at 9.7 percent	—	—	16.7	4.2	41.9
ERCs Required at 1.2:1 for Non-Exempt Emissions	—	—	21	6	51

[a] These emission calculations assume 480 starts per year, instead of 350, as currently stipulated in the FDOC and Decision, and for this reason are higher than stipulated in the FDOC and Decision. See discussion in Section 2.2.

[b] NO_X emissions would be offset at 1:1 using RECLAIM Trading Credits. See Table 2-2.

2.2 Startups and Shutdowns

WCE proposes to change the maximum number startups/shutdowns stipulated in COC AQ-3 from 350 to 480 per year and the number of daily shutdowns allowed in that COC from one to two. This change would allow WCE to meet the startup and shutdown obligations of the project's PPA.

Additional modeling is not required to make this change for the following reasons. Two basic emissions scenarios were developed for the AFC and PTC application. The first scenario was based on the expected annual and monthly operating profiles for use in establishing emission limits for the SCAQMD NSR permit, for RECLAIM, and for the monthly ERC requirements. This scenario assumed 3,200 hours of base load with 350 startup/shutdowns for a total of 3,468 hours on an annual basis. For the calculation of monthly ERCs, however, the worst-case month was assumed to be based on 432 hours with 40 startup/shutdowns (480 per year) for a total of 463 hours per month (30-day average).

The second scenario was used as a hypothetical worst-case assessment for the air quality and health risk modeling analysis. This scenario was based on a worst-case estimate of potential emissions that assumed extended hours of operation and included the use of an emergency generator. This scenario was used for the air quality/toxics modeling impact assessments because it represented a maximum envelope for which the facility could be expected to operate. This emissions/modeling scenario assumed worst-case, short-term, and annual emissions based on 4,838 hours of operation including startup/shutdown, which is greater than the 4,000-hour permit limit, and monthly emissions based on 463 hours of operation, which is greater than the 432-hour limit in the revised FDOC. Modeling a much higher emissions case than what is proposed to be permitted provides a worst-case impact assessment.

In both scenarios, the maximum short-term emission rates are the same. Specifically, the maximum 1-hour, 3-hour, 8-hour, and 24-hour emissions assume 20 hours of base load with 4 hours in startup/shutdown for a total of 24 hours of daily (short-term) operation.

Although WCE still expects that the WCEP will be dispatched by CAISO to operate in accordance with the first scenario during typical years, contractual obligations require that the project be permitted to operate up to the proposed permit/emission limits to allow for the possibility of extreme hot weather and low hydroelectric production or availability of electricity imports that would increase the need for project operation.

Increasing the number of starts would not increase the required offsets for VOC, PM, and SO_X because offsets for these pollutants are based on monthly peak emissions and the existing monthly peaks were already calculated assuming 40 starts per months (480 per year). Increasing the number of starts would increase the RECLAIM trading credits required for NO_X, however, because offsets for this pollutant are calculated on an annual basis at a 1:1 ratio. The annual NO_X emissions for maximum permitted operation of the project with 480 starts would 88.44 tons, or 176,887 pounds per year. Table 2-2 shows how this amount is calculated.

TABLE 2-2
Calculation of RECLAIM Trading Credits

Operating Condition	Hours per Year	NO_X (lb/hr)	NO_X (lb/year) per device	NO_X (lb/year) cumulative
CTGs				
Startup	480	10.42	5,001.60	25,008.00
Shutdown	480	11.00	5,280.80	26,400.00
Normal Operation	3,040	8.21	24,958.40	124,792.00
Commissioning	134	71.21	9,542.14	47,710.70
CTG Totals	4,000		44,782.14	223,910.70
Emergency Fire Pump:	199.9	3.439	687.46	687.46
Total 1st Year Emissions (lb/year)			45,469.60	224,598.16
Offset Ratio			1.00	1.00
1st year RTCs (lb/year)			45,469.60	224,598.16
2nd year RTCs (lb/year)			35,927.46	176,887.46

Condition AQ-3's daily limit of one shutdown appears to be an oversight. The SCAQMD engineering analysis that supports the DOC indicates that SCAQMD considered maximums of two starts per day and 40 starts per month.

2.3 Interpollutant Trade

SCAQMD's NSR Rule 1309(h) governs the use of interpollutant trades in air emissions offsetting calculations. Under this rule, if one pollutant is a precursor to another, it is permissible to surrender ERCs from the precursor pollutant to offset the target pollutant. For example, VOC, SO_X, and NO_X are all precursor pollutants to PM, so reducing their basin-wide concentrations will also reduce PM concentrations. The rule states the following:

> The Executive Officer or designee may approve interpollutant offsets on a case-by-case basis, provided that the trade results in an equivalent or greater offset of the new, modified, or relocated source's nonattainment pollutants; and that the applicant demonstrates, to the satisfaction of the Executive Officer or designee, that the emissions from the new or modified source will not cause or significantly contribute to the violation of an ambient air quality standard …Interpollutant trades between PM10 and PM10 precursors may be allowed.

As an alternative method to offset exemption under Rule 1304(a)(2), or in addition to the exemption (to account for generating capacity at WCEP in excess capacity that would be replaced by decommissioning HB 3 and 4), WCE proposes additions to the COCs that specify how interpollutant trading ratios would apply. Specifically, interpollutant trading ratios would be as follows:

- SO_X: PM at 0.667:1
- VOC: PM at 23.3:1

2.4 CO Emission Limit

WCE proposes to change the CO emission limit from 6.0 ppm to 4.0 ppm. The latter CO emission level has been proven achievable in practice and has been established as BACT for simple-cycle, natural-gas-fired power plants in the South Coast Air Basin.

SECTION 3.0

Environmental Analysis

The proposed amendments to the WCEP's certification would be limited to proposed changes to the COCs for air quality. There are no proposed changes to the project design or to project equipment. The discussion that follows is, therefore, restricted to the discipline of air quality. There would be no changes to the environmental baseline or to the environmental effects of the WCEP as pertains to the other disciplines.

3.1 Air Quality

The Commission Decision determined that the WCEP would not have significant impacts on air quality. This Petition for Amendment proposes changes in the COCs related to air quality mitigation measures for PM10, SO_X, and VOC. These changes are necessary because credits from the SCAQMD's PRA are no longer available to the WCEP for these pollutants under the portion of Rule 1309.1 that was rescinded subsequent to CEC certification of the WCEP. This Petition for Amendment also proposes to reduce the CO emission limit in the COCs to comply with current South Coast Air Basin BACT limits, and increase the annual and daily startup limits (and make a corresponding increase in RECLAIM Trading Credits required). The revised mitigation measures requested in this Petition for Amendment are as or more effective than those originally proposed, and would not result in significant impacts on air quality.

3.1.1 Environmental Baseline Information

This Petition for Amendment does not require changes to the Environmental Baseline Information as described in the AFC. The changes requested are only related to air quality mitigation measures.

As background, however, the following is a summary of the current status of air quality standards attainment in the South Coast Air Basin.

As background to the later discussion of proposed changes to the Conditions of Certification, however, the attainment status of criteria pollutants in the South Coast Air Basin is shown in Table 3-1.

TABLE 3-1
South Coast Air Basin Attainment Status

Pollutant	Averaging Time	Federal Status	State Status
Ozone	8-hour	Severe NA	Extreme NA
NO_2	All	UNC/ATT	UNC/ATT
CO	All	ATT	ATT
SO_2	All	ATT	ATT

TABLE 3-1
South Coast Air Basin Attainment Status

Pollutant	Averaging Time	Federal Status	State Status
PM_{10}	All	Attainment redesignation approved by SCAQMD and California Air Resources Board. Pending U.S. Environmental Protection Agency (EPA) approval	NA
$PM_{2.5}$	All	NA	NA

Source: SCAQMD Website, 2010.

ATT= attainment
NA= nonattainment
UNC = unclassified

Under SCAQMD's NSR provisions (Regulation XIII), nonattainment pollutants also include precursor pollutants, per Rule 1301. Table 3-2 shows the precursor relationships established by the SCAQMD rules.

TABLE 3-2
Criteria Pollutant Precursor Relationships, per SCAQMD Rules

Precursor	Secondary Pollutants In Nonattainment Classification		
VOC	—	Ozone	Organic, nitrate, and sulfate fractions of PM
NO_X	NO_2		
SO_X	SO_4	—	

Note: Federal NSR precursor delineations are different than those presented above, but for purposes of ERCs and offsets within the SCAQMD, the delineations above are to be implemented and followed.

SCAQMD NSR rules require offsets for all emission increases (Rule 1303) for criteria pollutants and their precursors. Based on the above tables, the nonattainment pollutants subject to offsets are VOCs, NO_X, PM10, and SO_X, as considered in the AFC, FDOC, and Commission Decision.

SCAQMD's adoption of controls in the South Coast Air Basin has resulted in attainment of the federal 24-hour PM standard. The SCAQMD's Governing Board requested EPA to consider SCAQMD's petition to redesignate the Basin as in attainment for this standard. CARB's Executive Officer requested that EPA Region IX redesignate the Basin from nonattainment to attainment for PM10. Upon issuance of the attainment redesignation, new emission sources entering commercial operation will no longer be required by federal law to purchase PM10 ERCs, but EPA is not expected to approve SCAQMD's redesignation petition prior to the date that construction of the WCEP must begin.

The emission sources at WCEP include five gas turbines, a diesel-fired fire pump, and a mechanical-draft wet cooling tower. The actual operation of the turbines will be for peaking service. An evaporative cooling inlet air system will be used to increase power output under certain conditions. Emission control systems will be fully operational during all operations except during brief periods upon startup and shutdown. Maximum annual emissions are based on operation of the WCEP at maximum firing rates and include the expected

maximum number of startups that may occur in a year. Each turbine startup will result in transient emission rates until steady-state operation for the gas turbine and emission control systems is achieved.

Ambient air quality impact analyses for the project were conducted to satisfy the SCAQMD and CEC requirements for assessing criteria pollutants (NO_2, CO, PM10, and SO_2), non-criteria pollutants, and construction impacts. Potential impacts on air quality resulting from construction of the WCEP were addressed on a pollutant-specific basis.

3.1.1.1 PM2.5

PM2.5 is a new Prevention of Significant Deterioration (PSD) pollutant that was not applicable at the time that the CEC issued the WCEP Decision. In 2010, EPA adopted a Final Rule under PSD that established increments, Significant Impact Levels, and a Significant Monitoring Concentration for PM2.5. A PSD source that has the potential to emit more than 100 tons per year (tpy) of PM2.5 would be subject to the rule. The WCEP FDOC as issued by SCAQMD include a federally enforceable annual fuel use limit that limits the WCEP project's PM10 emissions to approximately 60 tpy. Because PM2.5 is a fraction of PM10, the WCEP PM2.5 emissions are limited via a federally enforceable limit to less than federal significance threshold of 100 tpy and would therefore not trigger a PSD analysis.

3.1.1.2 1-hour NO_2

Since the time that the CEC issued the WCEP Decision, the EPA has promulgated a standard for 1-hour NO_2 emissions. Although SCAQMD does not require 1-hour federal NO_2 modeling for non-PSD sources, and WCEP is a non-PSD source, WCE completed a modeling analyses that indicates that WCEP would meet the 1-hour NO_2 standard for operations and startups, as described below (see also Attachment B).

The new federal 1-hour NO_2 standard is 188 micrograms per cubic meter ($\mu g/m^3$) (98^{th} percentile 1-hour). Based on SCAQMD Guidelines, the 98th percentile background NO_2 concentration is 138 $\mu g/m^3$ and is based on data from the La Habra monitoring station. 1-hour NO_2 emissions under normal WCEP baseload operation would be as follows:

Normal Baseload Operations:
98^{th} percentile impact = 22.42 $\mu g/m^3$
Adding the modeling results to background produces 160.42 $\mu g/m^3$

Startup Operations:
98^{th} percentile impact = 5.47 $\mu g/m^3$
Adding the modeling results to background produces 143.47 $\mu g/m^3$

These emissions are less than the federal 1-hour average NO_2 standard of 188 $\mu g/m^3$ and the California ambient air quality standard of 339 $\mu g/m^3$. Although SCAQMD does not require modeling to demonstrate compliance with the standard for commissioning, modeling for the WCEP indicates that the WCEP would meet the standard for commissioning as well (see Attachment B).

3.1.2 Conditions of Certification

WCE requests the following changes to the COCs. In the following, suggested deletions are indicated in strikethrough text and suggested insertions are indicted in bold face and underlined type.

California Energy Commission Staff Conditions:

AQ-SC7 The project owner shall provide emission reduction credits **(ERCs)** to offset turbine exhaust and emergency equipment NOx, VOC, SOx, PM10 and PM2.5 emissions **to the extent those emissions are not exempt from the offset requirements through application of District Rule 1304(a)(2) boiler replacement offset exemption** in the form and amount required by the District. RECLAIM Trading Credits (RTCs) shall be provided for NOx as is necessary to demonstrate compliance with Condition of Certification **AQ-16**.

The project shall be exempt under District Rule 1304(a)(2) from providing ERCs ~~emission reduction credits (ERCs) or SCAQMD Priority Reserve Credits (PRCs) shall be provided for SOx (44 and PM10 (463 b/day or under Rule 1304(a)(2) exemption, 42 lb/day). Emission reduction credits only shall be provided for VOC (220 lb/day, includes an offset ratio of 1.2).~~ **for VOC, SOx, and PM10 for 90.3 percent of the full amount required by the District for these pollutants and shall provide ERCs at an offset ratio of 1.2:1.0 for the remaining 9.7 percent in accordance with the following:**

Pollutant (lb/day)	**VOC**	**SOx**	**PM_{10}**
1. Total emissions to be offset	**172**	**44**	**432**
2. Emissions exempt from offsetting under Rule 1304(a)(2) (90.3%)	**153**	**39**	**390**
3. Emissions not exempt from offsetting under Rule 1304(a)(2) (9.7%)	**17**	**4**	**42**
4. ERCs required to offset non-exempt emissions at a ratio of 1.2 lb/day offsets to 1 lb/day non-exempt emissions	**21**	**6**	**51**

The project owner may satisfy some portion or all of the requirements to surrender ERCs for PM through interpollutant trades at ratios of 0.667:1 for SOx to PM10 and 23.3:1 for VOC to PM10.

The project owner shall surrender the ERCs, if applicable, for SOx, VOC and PM10 from among those that are listed in the table below or a modified list, as allowed by this condition. If additional ERCs are submitted, the project owner shall submit an updated table including the additional ERCs to the CPM. The project owner shall request CPM approval for any substitutions, modifications, or additions of credits listed.

The CPM, in consultation with the District, may approve any such change to the ERC list provided that the project remains in compliance with all applicable laws, ordinances, regulations, and standards, the requested change(s) will not cause the project to result in a significant environmental impact, and the District confirms that each requested change is consistent with applicable federal and state laws and regulations.

The project owner shall request from the District a report of the NSR Ledger Account for the project after the District has issued the Permit to Construct. This report is to specifically identify the ERCs and PRCs used to offset the project emissions.

Certificate Number	Amount (lb/day)	Pollutant
AQ003679	8	VOC
AQ002683	1	VOC
Former AQ004209	117	VOC
Former AQ006303	100	VOC

Verification: The project owner shall submit to the CPM the NSR Ledger Account, showing that the project's offset requirements have been met, **by actual offset or exemption under Rule 1304(a)(2)**, 15 days prior to initiating construction for Priority Reserve Credits, and 30 days prior to turbine first fire for traditional ERCs **or exemption under Rule 1304(a)(2)**. Prior to commencement of construction, the project owner shall obtain sufficient RTCs to satisfy the District's requirements for the first year of operation as prescribed in Condition of Certification **AQ-16**. If the CPM approves a substitution or modification to the list of ERCs, the CPM shall file a statement of the approval with the project owner and commission docket. The CPM shall maintain an updated list of approved ERCs for the project.

AQ-SC8 The project owner/operator shall perform the following requirements prior to construction ground disturbance:

Within 90 days of startup of the gas turbines, the project owner shall effect the shutdown Huntington Beach boiler units 3 and 4 and use the District Rule 1304(a)(2) boiler replacement offset exemption to partially offset the project SOx, VOC, and PM10 and PM2.5 emissions. The project owner shall request from the District a report of the NSR Ledger Account for the project after the District has granted the project a Permit to Construct. Such report to specifically identify the Rule 1304(a)(2) Exempted Emissions used to offset the project emissions. The District shall submit this report to the CPM prior to turbine first fire.

- ~~Demonstrate Compliance with Rule 1309.1 Section d(12), by either:~~

  1. ~~Providing a letter from the Executive Officer of the South Coast Air Quality Management District stating that the project capacity is within the first 2,700 MW of capacity requested pursuant to Rule 1309.1 Section d (12).~~

  ~~Or~~

  2. ~~Providing a letter from the Governing Board of the South Coast Air Quality Management District granting a specific waiver to the AQMD Rule 1309.1 section d(12). This letter must be on the Governing Board letterhead and signed by the appropriate members of the Governing Board.~~

- ~~Demonstrate Compliance with Rule 1309.1 Section d(14), by either:~~

  1. ~~Providing non-confidential evidence that the project owner/operator has entered into a long-term power purchase agreement contract as required by AQMD Rule 1309.1 with Southern California Edison Company, San Diego Gas and Electric Company or the State of California.~~

  ~~Or~~

  2. ~~Providing a letter from the Governing Board of the South Coast Air Quality Management District granting a specific waiver to the long term contract requirement of AQMD Rule 1309.1 section d (14). This letter must be on the Governing Board letterhead and signed by the appropriate members of the Governing Board.~~

Verification: All evidence submitted in compliance with Condition **AQ-SC8** must be submitted 30 days prior to construction ground disturbance.

SCAQMD Conditions:

AQ-3 The 2.5 ppm NOx emission limit, 2.0 ppm VOC emission limit and the ~~6.0~~ **4.0** ppm CO emission limit shall not apply during turbine commissioning, start-up and shutdown. The commissioning period shall not exceed 134 operating hours per turbine from the initial start-up. Following commissioning, start-ups shall not exceed 60 minutes and the number of start-ups shall not exceed ~~350~~ **480** per year. Following commissioning, shutdowns shall not exceed 10 minutes and the number of shutdowns shall not exceed ~~one~~ **two** per day per turbine. Written records of commissioning, start-ups and shutdowns shall be kept and made available to District and submitted to the CPM for approval. The 123.46 lb/mmscf NOx emission limit(s) shall only apply during interim reporting period during initial turbine commissioning and the 10.29 lbs/mmscf shall apply only during the interim reporting period after the initial turbine commissioning period, to report RECLAIM emissions. The interim period shall not exceed 12 months from the initial start-up date.

Verification: The project owner shall provide the District and the CPM with the written notification of the initial start-up date no later than 60 days prior to the startup date. The project owner shall submit, commencing one month from the time of gas turbine first fire, a monthly commissioning status report throughout the duration of the commissioning phase that demonstrates compliance with this condition and the emission limits of Condition **AQ-13**. The monthly commissioning status report shall include criteria pollutant emission estimates for each commissioning activity and total commissioning emission estimates. The monthly commissioning status report shall be submitted to the CPM until the report includes the completion of the initial commissioning activities. The project owner shall provide start-up and shutdown occurrence and duration data as part as part of the Quarterly Operation Report **AQSC-10**). The project owner shall make the site available for inspection of the commissioning and startup/shutdown records by representatives of the District, CARB and the Commission.

AQ-4 The 2.5 ppm NOx emissions limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis.

The ~~6.0~~ **4.0** ppm CO emission limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis.

The 2.0 ppm VOC emission limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis.

The 5.0 ppm NH3 emission limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis.

Verification: The project owner shall submit to the CPM for approval all emissions and emission calculations on a quarterly basis as part of the quarterly emissions report of Condition of Certification **AQSC-10**.

AQ-16 The project equipment shall not be operated unless the project owner demonstrates to the SCAQMD Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the project owner demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility hold sufficient RTCs in an amount equal to the annual emission increase. The project owner shall submit all such information to the CPM for approval. To comply with this condition, the project owner shall hold a minimum of ~~40,761~~ **45,469.40** lbs/year of NOx RTCs for the first year of operation and ~~32,319~~ **35,927.46** lbs/year thereafter.

Verification: The project owner shall submit all identified evidence demonstrating compliance to the CPM on an annual basis as part of the annual compliance report.

AQ-19 **If the project owner elects to partially comply with the emission offset requirements through District Rule 1304(a)(2) boiler replacement offset exemption, the operator shall on completion of construction, operate and maintain this equipment according to the following specifications:**

The gas turbines shall not operate simultaneously with Huntington Beach boiler units 3 and 4 except for the 90 day period as stipulated in District Rule 1313. AES Southland Holdings LLC shall surrender Permit(s) to Operate (Facility ID 115389, Equipment ID D98 & D104) for Huntington Beach boiler units 3 and 4 within 90 days of the start-up of the Walnut Creek Energy Park gas turbines.

Verification: The project owner shall make the site available for inspection by representatives of the District, CARB, EPA and the Commission. In addition, the project owner shall make Huntington Beach boiler units 3 and 4 available for inspection to confirm shutdown of these boilers by representatives of the District, CARB, EPA and the Commission.

3.2 LORS

The Commission Decision certifying the WCEP concluded that the project is in compliance with all applicable LORS. The project, as modified, will comply with all applicable LORS shown in Table 3-3.

TABLE 3-3
Compliance with Laws, Ordinances, Regulations, and Standards

Rule/Regulation/Requirement	Compliance
Federal Standards under the Clean Air Act	
Federal PM10	WCEP will offset PM10 emissions either under the Rule 1304(a)(2) exemption by replacing an existing utility steam boiler with newer generation or by a combination of steam boiler replacement, ERCs, and interpollutant trades.*
Federal SO_X	Not applicable. The South Coast Air Basin is in attainment for SO_X.
Federal PM2.5	Appendix S to Title 40, Part 51 of the Code of Federal Regulations (aka the "Emission Offset Interpretative Ruling") sets an offset requirement for PM2.5 emissions only for major sources greater than 100 tpy. WCEP emissions will be capped per an enforceable permit limit to below 100 tpy. On November 13, 2009, EPA designated the South Coast Air Basin as nonattainment for the 2006 24-hour PM2.5 National Ambient Air Quality Standards (NAAQS) (35 $\mu g/m^3$); the designation became effective on December 14, 2009. *See* 74 FR 58688 (11/13/2009). Appendix S essentially functions as a regulatory bridge allowing NSR permits to be issued before a necessary State Implementation Plan revision (e.g., drafted in response to the strengthened PM2.5 New Source Review [NSR] requirements) has been approved by EPA.
Federal Ozone	WCEP will provide VOC ERCs through exemption under Rule 1304(a)(2) and by providing ERCs. WCEP will provide NO_X RTCs, per the AFC, DOC, and Commission Decision.

TABLE 3-3
Compliance with Laws, Ordinances, Regulations, and Standards

Rule/Regulation/Requirement	Compliance
Federal NO_2	The Basin currently is not classified as nonattainment for either the daily or annual NAAQS; EPA is not expected to designate areas as attaining or not attaining the new standard until January 2012. Accordingly, WCEP will not be required to offset NO_2 emissions except to the extent provided by its NO_X RTC obligation, per the AFC, DOC, and Commission Decision.
EPA Rules and Regulations	
Greenhouse Gas (GHG) Emissions per EPA's Final Tailoring Rule	WCEP's projected timeline for permit issuance and start of construction renders it unlikely that the project will become subject to EPA's Final Tailoring Rule for GHG emissions.
State Law	
California Environmental Quality Act	The CEC's power plant certification program under Pub. Res. Code §§25500-25543 is a certified regulatory program that is exempt from CEQA. 14 CCR §15251(j). The CEC completed CEQA review of WCEP during its licensing process and approved WCEP on 2/27/2008, finding no significant unmitigated air quality impacts.
State Standards under the California Clean Air Act	
State PM10 & PM2.5	The Health and Safety Code requires each air district with moderate, serious, severe, or extreme air pollution to include in its attainment plan a "stationary source control program designed to achieve no net increase in emissions of nonattainment pollutants or their precursors from new or modified stationary sources" which emit pollutants above certain thresholds. Health and Safety Code §§ 40918(a)(1), 40919(a)(2), 40920(b), 40920.5(a). For purposes of classifying areas as nonattainment for purposes of Sections 40918, 40919, 40920, 40920.5, the Health and Safety Code defines standards for only ozone and carbon monoxide. *See* Health and Safety Code § 40921.5. WCEP will offset PM2.5 emissions using PM10 and SO_X equivalent offsets either under the Rule 1304(a)(2) exemption by replacing an existing utility steam boiler with newer generation or by some combination of steam boiler replacement, and interpollutant trades.
State SO_X	SO_X offsets will be required as a precursor for PM2.5. WCEP will offset SO_X emissions either under the Rule 1304(a)(2) exemption by replacing an existing utility steam boiler with newer generation or by some combination of steam boiler replacement, ERCs, and interpollutant trades.
State Ozone	WCEP will provide VOC ERCs through exemption under Rule 1304(a)(2) and by providing ERCs. WCEP will provide NO_X RTCs, per the AFC, DOC, and Commission Decision. Modeling demonstrates insignificant increase to existing ambient concentration.
State NO_2	WCEP's provision of NO_X RTCs to offset its NO_X emissions also will offset NO_2 emissions (per the AFC, DOC, and Commission Decision).
SCAQMD Rules	
SCAQMD Rule 1303(b) (offset timing)	The Basin likely will be redesignated as attainment for PM10 before project operation begins in early 2013, potentially obviating the need to offset PM10 emissions. Nevertheless, WCEP will provide the boiler shutdowns required under the Rule 1304(a)(2) exemption and any required ERCs.

TABLE 3-3
Compliance with Laws, Ordinances, Regulations, and Standards

Rule/Regulation/Requirement	Compliance
SCAQMD Rule 1303(b)(2a) (offset multiplier)	To the extent that the WCEP is not exempt under Rule 1304(a)(2), WCE will surrender ERCs for VOC, PM10, and SO_X at a 1:2 ratio, either through certified ERCs or interpollutant trade.

*The South Coast Air Basin is expected to be redesignated to attainment in the near future. When this redesignation takes effect, federal law will no longer require that WCEP's PM10 emissions be offset.

SECTION 4.0

Potential Effects on the Public

This section discusses the potential effects on the public that may result from the modifications proposed in this Petition for Amendment application, pursuant to CEC Siting Regulations (Title 20, CCR, Section 1769[a][1][G]).

No adverse effects on the public will occur because of the changes to the project as proposed in this Petition for Amendment.

SECTION 5.0

List of Property Owners

This section lists the property owners in accordance with the CEC Siting Regulations (Title 20, CCR, Section 1769[a][1][H]). A list of property owners whose property is located within 1,000 feet of the proposed facility is included as Attachment C. The list is provided in a format suitable for copying to mailing labels.

SECTION 6.0

Potential Effects on Property Owners

This section addresses potential effects of the project changes proposed in this Petition for Amendment on nearby property owners, the public, and parties in the application proceeding, pursuant to CEC Siting Regulations (Title 20, CCR, Section 1769 [a][1][I]).

The project, as modified, will not differ significantly in potential effects on adjacent land owners, compared with the project as previously proposed. The project, therefore, would have no adverse effects on nearby property owners, the public, or other parties in the application proceeding.

Attachment A
Emissions and Offset Calculations

Walnut Creek Energy Park
Emission Calculations, Commissioning Year

Mass Emission Rates, lb/hr (Commissioning Year)

	Emissions, lb/hr					
5 x LMS100PA CTG	NOx	CO	VOC	SO2	PM10	NH3
Normal operations	41.05	39.67	11.40	3.10	30.00	30.35
Start-up	52.10	102.00	14.05	3.10	30.00	N/A
Shutdown	55.00	140.00	15.00	3.10	30.00	N/A
Emergency Fire Pump	3.439	0.179	0.112	0.0041	0.0595	N/A
5-Cell Cooling Tower	N/A	N/A	N/A	N/A	0.443	N/A

Mass Emission Rates, lb/month (Commissioning Year)

	Emissions, lb/month					
5 x LMS100PA CTG	NOx	CO	VOC	SO2	PM10	NH3
Normal operations	14,449.60	13,962.67	4,012.80	1,091.20	10,560.00	10,683.20
Start-up	2,084.00	4,080.00	562.00	124.00	1,200.00	N/A
Shutdown	2,200.00	5,600.00	600.00	124.00	1,200.00	N/A
Commissioning	5,301.11	5,404.44	208.89	25.16	298.89	N/A
Emergency Fire Pump	13.76	0.72	0.45	0.02	0.24	N/A
5-Cell Cooling Tower	N/A	N/A	N/A	N/A	191.38	N/A
TOTALS	**24,048.47**	**29,047.83**	**5,384.14**	**1,364.37**	**13,450.50**	**10,683.20**

Mass Emission Rates, lb/year (Commissioning Year)

	Emissions, lb/year					
5 x LMS100PA CTG	NOx	CO	VOC	SO2	PM10	NH3
Normal operations	124,792.00	120,586.67	34,656.00	9,424.00	91,200.00	92,264.00
Start-up	25,008.00	48,960.00	6,744.00	1,488.00	14,400.00	N/A
Shutdown	26,400.00	67,200.00	7,200.00	1,488.00	14,400.00	N/A
Commissioning	47,710.00	48,640.00	1,880.00	226.40	2,690.00	N/A
Emergency Fire Pump	687.46	35.78	22.39	0.82	11.89	N/A
5-Cell Cooling Tower	N/A	N/A	N/A	N/A	1,772.00	N/A
TOTALS	**224,597.46**	**285,422.45**	**50,502.39**	**12,627.22**	**124,473.89**	**92,264.00**

Cumulative 30 day averages, lb/day (Commissioning Year)

	Emissions, lb/day				
LMS100PA CTG	NOx	CO	VOC	SO2	PM10
Normal operations		465	134	36	352
Start-up		136	19	4	40
Shutdown		187	20	4	40
Commissioning		180	7	1	10
Emergency Fire Pump		N/A	N/A	N/A	N/A
5-Cell Cooling Tower		N/A	N/A	N/A	0.0
TOTALS		**968**	**179**	**45**	**442**

Walnut Creek Energy Park
Emission Calculations, Non-Commissioning Year

Mass Emission Rates, lb/hr (Non-Commissioning Year)

	Emissions, lb/hr					
5 x LMS100PA CTG	NOx	CO	VOC	SO2	PM10	NH3
Normal operations	41.05	39.67	11.40	3.03	30.00	30.35
Start-up	52.10	102.00	14.05	3.03	30.00	N/A
Shutdown	55.00	140.00	15.00	3.03	30.00	N/A
Emergency Fire Pump	3.439	0.179	0.112	0.0041	0.0595	N/A
5-Cell Cooling Tower	N/A	N/A	N/A	N/A	0.443	N/A

Mass Emission Rates, lb/month (Non-Commissioning Year)

	Emissions, lb/month					
5 x LMS100PA CTG	NOx	CO	VOC	SO2	PM10	NH3
Normal operations	14,449.60	13,962.67	4,012.80	1,066.56	10,560.00	10,683.20
Start-up	2,084.00	4,080.00	562.00	121.20	1,200.00	N/A
Shutdown	2,200.00	5,600.00	600.00	121.20	1,200.00	N/A
Emergency Fire Pump	13.76	0.72	0.45	0.02	0.24	N/A
5-Cell Cooling Tower	N/A	N/A	N/A	N/A	191.38	N/A
TOTALS	**18,747.36**	**23,643.38**	**5,175.25**	**1,308.98**	**13,151.61**	**10,683.20**

Mass Emission Rates, lb/year (Non-Commissioning Year)

	Emissions, lb/year					
5 x LMS100PA CTG	NOx	CO	VOC	SO2	PM10	NH3
Normal operations	124,792.00	120,586.67	34,656.00	9,211.20	91,200.00	92,264.00
Start-up	25,008.00	48,960.00	6,744.00	1,454.40	14,400.00	N/A
Shutdown	26,400.00	67,200.00	7,200.00	1,454.40	14,400.00	N/A
Emergency Fire Pump	687.46	35.78	22.39	0.82	11.89	N/A
5-Cell Cooling Tower	N/A	N/A	N/A	N/A	1,772.00	N/A
TOTALS	**176,887.46**	**236,782.45**	**48,622.39**	**12,120.82**	**121,783.89**	**92,264.00**

Cumulative 30 day averages, lb/day (Non-Commissioning Year)

	Emissions, lb/day				
LMS100PA CTG	NOx	CO	VOC	SO2	PM10
Normal operations		465	134	36	352
Start-up		136	19	4	40
Shutdown		187	20	4	40
Emergency Fire Pump		N/A	N/A	N/A	N/A
5-Cell Cooling Tower		N/A	N/A	N/A	6.4
TOTALS		**788**	**172**	**44**	**432**

Walnut Creek Energy Park
Emission Calculations, Non-Commissioning Year

Table 17 -- 30 Day Averages for Entire Facility, (lb/day)

	NOx	CO	VOC	SO2	PM10
Maximum 30 Day Average		788	172	44	432

CAISO Net Qualifying Capacity, MW

Walnut Creek		500.5
Electric Utility Steam Boilers replaced		452
	Increased Capacity	48.5
	Increase	9.69%

Table 18 -- Required Offsets for Non-RECLAIM Pollutants (entire facility, lb/day)

	NOx	CO	VOC	SO2	PM10
Maximum 30 Day Average			172	44	432
ERC Offset Ratio			1.2	1.2	1.2
PRC Offset Ratio			1.0	1.0	1.0
Required Offsets if ERCs			207	53	519
Shortfall @ 9.69%			16.7	4.2	41.9
ERCs @ 1.2:1			21	6	51

Walnut Creek Energy Park
NOx RECLAIM Trading Credits

REQUIRED NOx RTCs

Operating Condition 100	Hours per Year	NOx (lb/hr)	NOx (lb/year) per device	NOx (lb/year) cumulative
CTGs				
Startup	480	10.42	5,001.60	25,008.00
Shutdown	480	11.00	5,280.00	26,400.00
Normal Operation	3040	8.21	24,958.40	124,792.00
Commissioning	134	71.21	9,542.14	47,710.70
CTG Totals	4000		44,782.14	223,910.70
Emergency Fire Pump	199.9	3.439	687.46	687.46
Total 1st Year Emissions (lb/year)			45,469.60	224,598.16
Offset Ratio			1.00	1.00
1st year RTCs (lb/year)			45,469.60	224,598.16
2nd year RTCs (lb/year)			35,927.46	176,887.46

Attachment B
1-Hour NO_2 Modeling Information

1-HOUR NO_2 MODELING ASSESSMENT

For the:

WALNUT CREEK ENERGY PARK

Prepared for:

AES WALNUT CREEK, LLC.
911 Bixby Drive,
City of Industry, California 91744

Prepared by:

Atmospheric Dynamics, Inc.
Torres 3 SW of Mountain View
P.O. Box 5907
Carmel-by-the-Sea, CA. 93921-5907

December 2010

Walnut Creek Energy Project–1-Hour NO_2 Air Quality Impact Assessment

This report describes the Walnut Creek Energy Park (WCEP) air quality modeling results for the comparison to the new Federal 1-hour average NO_2 standard of 188 ug/m^3. Potential air quality impacts were evaluated based on air quality dispersion modeling, as described herein. With the exception of the binary data files, all input and output modeling files are contained on a CD-ROM disk provided with this report. The modeling analyses were performed using the techniques and methods outlined by the South Coast Air Quality Management District (SCAQMD) "*Modeling Procedures- New Federal 1-hour NO_2 Standard*" (SCAQMD email from Tom Chico to Greg Darvin, November 30, 2010) as well as the SCAQMD "*AQMD Modeling Guidance for AERMOD*" (SCAQMD, October 2009).

DISPERSION MODELING

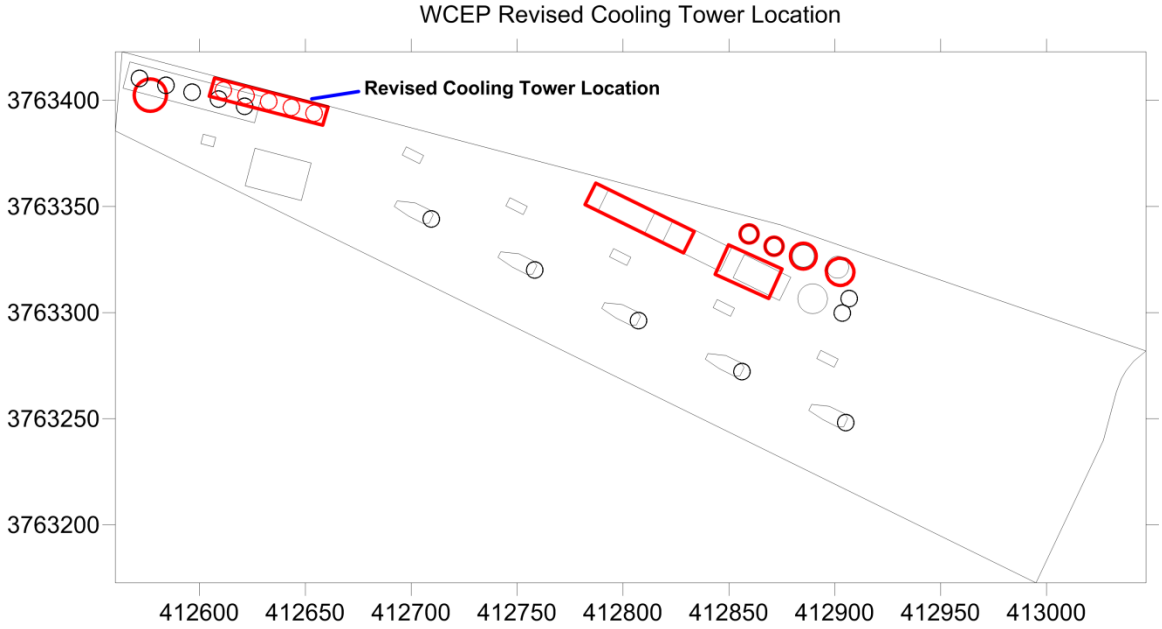
For modeling the potential impact of the WCEP in terrain that is both below and above stack top (defined as simple terrain when the terrain is below stack top and complex terrain when it is above stack top), the USEPA guideline model AERMOD (version 09292) was used following SCAQMD Modeling Guidance Procedures. These procedures are summarized below, but include the use of both flat and elevated terrain, hourly ozone limiting, and three years of SCAQMD processed meteorology.

The receptor data sets used in this revised analysis were based on the data used in the November 30th, 2005 Permit Application for the WCEP (Facility I.D. No. 146536 and Permit Application numbers 450894 through 450901, 450904, 450907, 450908, 451185, 450854) and subsequent changes to emission source location and dimensions as presented in amendments submitted to the SCAQMD in December 2008. However, the November 2005 Permit Application and subsequent revised assessment in December 2008 used the dispersion model called the Industrial Source Complex Short Term Version 3 (ISCST3), which is the previous generation of a dispersion model used to assess air quality impacts. AERMOD has replaced ISCST3 as the recommended model for use in regulatory dispersion modeling applications. As such, the new meteorological and receptor data requirements have been incorporated into this analysis. Additionally, the location and final dimensions of the cooling tower have been revised since the December 2005 application. The updated analysis was submitted to SCAQMD on December 2008. The revisions to the cooling tower location as well as revisions to the administration building and water storage tanks (highlighted in red) are presented in Figure 1.

Receptor and source base elevations were determined from USGS Digital Elevation Model (DEM) data using the most recent 7½-minute format (i.e., 10 to 30-meter spacing between grid nodes) and were processed using the most recent version of AERMAP. All coordinates were referenced to UTM North American Datum 1927 (NAD27), zone 11. The receptors used in the analysis were based on 10 and 30-meter DEM data and had a minimum 30-meter resolution which extended from the fence line outwards to 1000 meters in all directions. The receptor resolution was then based on 180 meter resolution which was extended to 10,000 meters in all directions. Areas on the coarse grid where the maximum impacts occurred were then assessed with a 30 meter resolution grid(s). This resulted in over 50,000 coarse and refined grid receptors used in the AERMOD modeling analysis. The receptor grids used in the modeling analysis are

presented in Figure 1. The turbine and fire pump stack locations were not revised from the original submittal.

Figure 1 Updated Building Location Map



The purpose of the revised AERMOD modeling analysis is to evaluate compliance with the new federal 1-hour NO_2 air quality standard. As discussed with Tom Chico of the SCAQMD, the maximum 98th percentile 1-hour NO_2 modeled concentration was added to the monitored background 98th percentile concentration. The FORTRAN source code to process the 98th percentile modeled concentration (following USEPA Guidelines) is included on the attached CD.

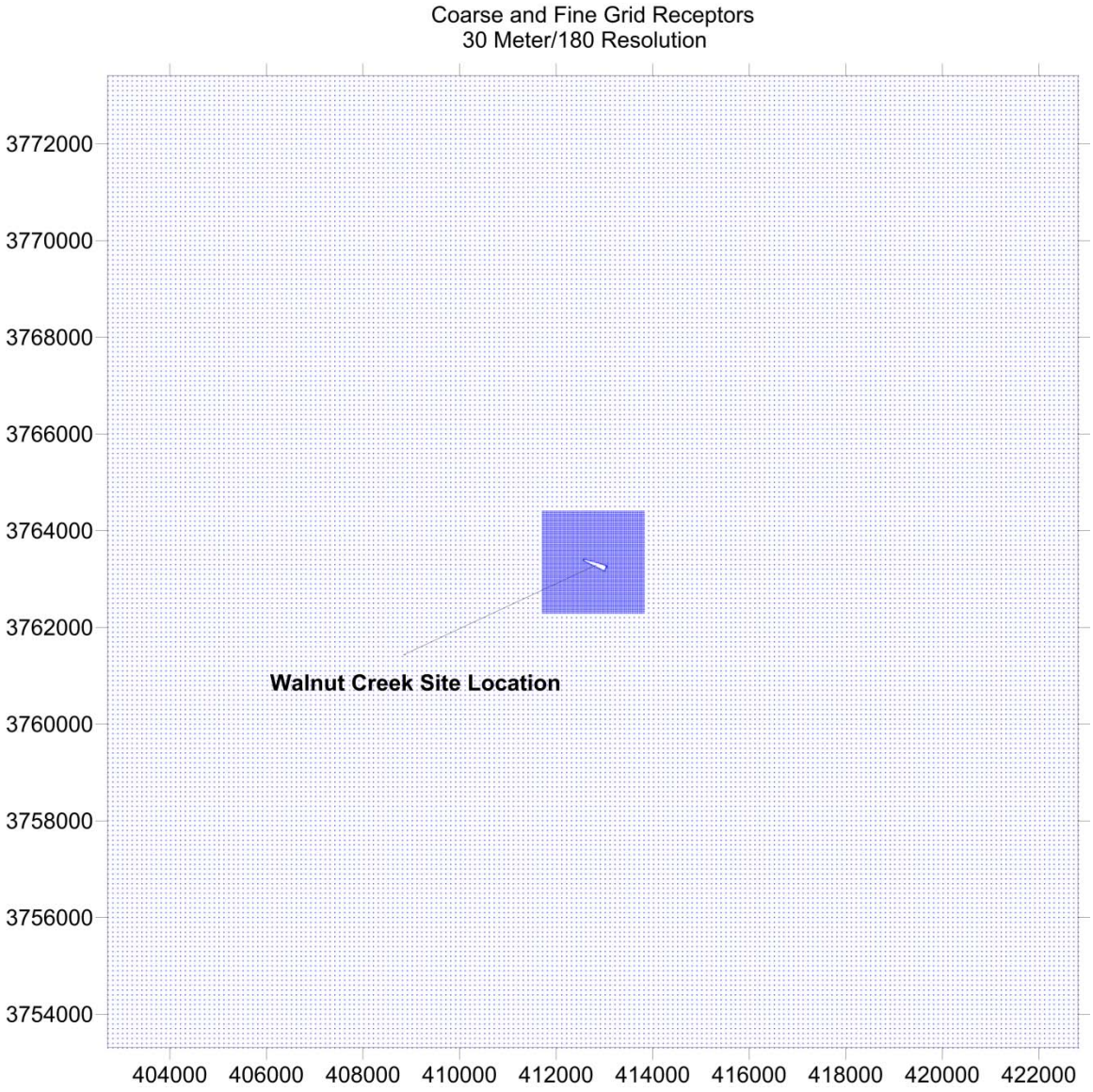
Two operating profiles were assessed for compliance with the 1-hour NO_2 standard: (1) five turbines in base load operation with a 1-hour weekly test of the fire pump and (2) five turbines in a simultaneous 1-hour cold startup mode but without the concurrent operation of the weekly 1-hour fire pump test. The fire pump will not be tested during periods when the turbines are in a startup. The stack parameters were those used in the December 2005 application.

Based on SCAQMD Guidance Documents, the following options were used to assess compliance with the new Federal 1-hour NO_2 standard:

- Urban option set to default population of 9,862,049 (LA County)
- AERMAP was used to develop receptor elevations and hill height scales
- AERMOD inputs include both flat terrain and actual terrain with the highest impacts between the model runs used to determine compliance

- Based on SCAQMD Guidance, the closest monitoring data to the project (La Habra at 9.7 km) was used and included both preprocessed surface and upper air meteorological data. The data set contained three years of data (2005-2007)
- Ozone Limiting Method (OLM) was used with La Habra ozone data (20005-2007)
- Based on the 7-acre project area, the maximum receptor spacing was set to 30 meters for fence line and downwash grids
- No Flagpole receptor heights were used

Figure 1 Receptor Grids used in AERMOD



BACKGROUND 1-HOUR NO_2 AIR QUALITY MONITORING DATA

Each federal or state AAQS is comprised of two basic elements: (1) a numerical limit expressed as an allowable concentration, and (2) an averaging time which specifies the period over which the concentration value is to be measured. Table 1 presents the current federal and state AAQS for NO_2.

TABLE 1
State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards Concentration	National Standards Concentration
Nitrogen dioxide (NO_2)	Annual Average	0.03 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)
	1-hr	0.18 ppm (339 µg/m^3)	0.1 ppm (188 µg/m^3)

Based on SCAQMD Guidance, the nearest and most representative NO_2 air quality monitoring site is the La Habra monitoring station, operated by the SCAQMD. The La Habra monitoring site is located in northwestern portion of Orange County in a commercial and residential part of downtown La Habra. La Habra has an estimated 2007 population of 62,635. This monitoring station is completely encircled by major highways. The air quality in this location is representative of a large part of the regional air shed due to the diurnal up valley and down valley air flow, which mixes the pollutants throughout the region. Ambient monitoring data for this site based on the most recent three (3) year period, as provided by the SCAQMD is summarized in Table 2.

TABLE 2
Monitoring Data Summary (98th Percentile High Monitored Values)

Pollutant	Site	Avg. Time	2006-2008
NO_2, µg/m^3	La Habra	1 Hr	138

The use of the La Habra monitoring station also satisfies the Environmental Protection Agency's new requirements for the placement of NO_2 monitors near major roadways in urban areas in order to determine the highest concentrations in an area covered by a monitoring network. The new Federal 1-hour NO_2 standard requires that monitoring networks be designed to measure the expected highest concentrations. Each of the SCAQMD monitoring stations has unique objectives which are associated with a spatial scale for each site. These spatial scales are defined in 40 CFR Part 58, Appendix D. Additionally, the desired spatial scale of a monitoring site must conform to established criteria for the distance from roadways, based on traffic volumes as defined in 40 CFR Part 58, Appendix E. The goal in siting monitoring stations is to match the spatial scale with the desired monitoring objective.

The new Federal 1-hour NO_2 standard is focused on short-term peak concentrations, which may occur near roadways. As summarized in the 2010 SCAQMD Annual Air Quality Monitoring Network Plan (October 2010), the La Habra monitoring objective is urban oriented (typical concentrations in areas of high population density in order to protect public health) and highest concentration (monitoring at locations expected to have the highest concentrations). Major roadways are located within 40 meters of the monitoring station. Thus, the use of the La Habra NO_2 monitoring station satisfies the revised EPA population and highest concentration oriented monitoring station requirements for the new 1-hour standard.

Based on discussions with SCAQMD Staff, compliance with the Federal 1-hour NO_2 standard was based on the approach where the eighth high modeled concentration was added to the 98th percentile background concentration determined by the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations. Accordingly, the data from the La Habra monitoring station were evaluated to identify the 98th percentile 1-hour NO_2 background concentration of 138.0 micrograms per cubic meter ($\mu g/m^3$).

AERMOD MODELING RESULTS

This section describes the results in magnitude and spatial extent of ground level concentrations, resulting from NO_2 emissions from the WCEP project. The 98th percentile maximum 1-hour background concentrations were added to the 98th percentile highest daily modeled concentrations to calculate a total impact. Impacts calculated with terrain elevations and impacts calculated in flat terrain were compared with the new standard. The AERMOD analysis with terrain always produced the highest impacts and is presented below. The results of the flat terrain analysis are included on the attached CD.

Table 3 summarizes maximum 1-hour modeled NO_2 concentration which demonstrates compliance with the new 1-hour federal NO_2 standard. The maximum modeled concentration occurred during routine operation of the turbines along with the weekly simultaneous 60 minute test of the fire pump. The modeled NO_2 impact locations all occurred on the 30 meter resolution receptor grid, as shown in Figure 3.

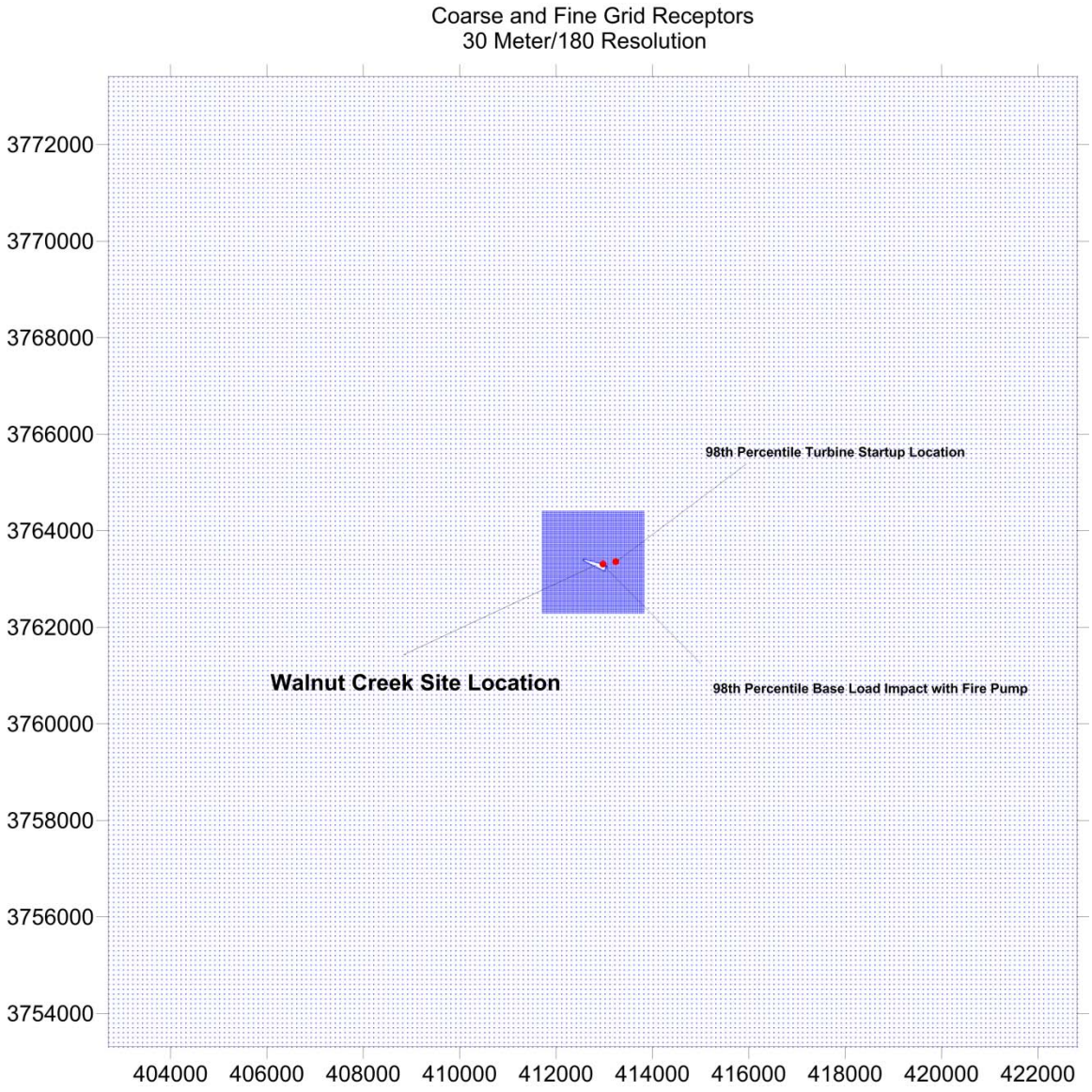
TABLE 3
Maximum Modeled Criteria Pollutant Concentrations

Pollutant	Avg. Period	98th Modeled High Concentration ($\mu g/m^3$)	Model Run-Start or Normal	98th Percentile Background ($\mu g/m^3$)	Total ($\mu g/m^3$)	Class II Significance Level ($\mu g/m^3$)	Ambient Air Quality	
							CAAQS ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
NO_2	1-hour	5.47[a]	Start	138.0	143.47	7.5	339	188
NO_2	1-hour	22.42[b]	Normal	138.0	160.42	7.5	339	188

[a] The project maximum 1-hour impact is from the simultaneous startup of five turbines during a 1-hour period. All 1-hour NO_2 modeled concentrations were calculated with ozone limiting method.

[b] The normal operational impacts are due primarily to the routine testing of the fire pump. The fire pump testing will not occur during turbine startup operations.

Figure 3: 98th Percentile Impact Locations



CONCLUSION

The results of the revised WCEP modeling analysis demonstrates that the proposed project will safely comply with new Federal 1-hour ambient air quality standard for NO_2.

Attachment C
Property Owners within 1,000 feet of the Proposed Facility

Owner List

PARCEL	OWNER	ADDRESS	CITY/STATE/ZIP
8242 001 018	Antonia Gonzalez	16315 Folger St	Hacienda Heights Ca 91745
8242 001 019	Gon Win Maung	16321 Folger St	Hacienda Heights Ca 91745
8242 001 020	Donald V Shorkey	16327 Folger St	Hacienda Heights Ca 91745
8242 001 021	Shou Y Tsai	16333 Folger St	Hacienda Heights Ca 91745
8242 001 022	Dale D Cummings	16339 Folger St	La Puente Ca 91745
8242 001 023	Carlos J & Luz M Mosqueda	16345 Folger St	Hacienda Heights Ca 91745
8242 001 024	Juan & Margarita Fierro	16351 Folger St	Hacienda Heights Ca 91745
8242 009 001	Helen Hernandez	1104 Fieldgate Ave	Hacienda Heights Ca 91745
8242 009 800	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 009 803	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 009 804	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 011 045	James N Co-Tr Frize	131 S El Dorado Ln	Anaheim Ca 92807
8242 011 047	Jack L Perrin	1020 Bixby Dr	City Of Industry Ca 91745
8242 011 059	Lba Riv-Co I LLC	16639 Gale Ave	City Of Industry Ca 91745
8242 011 809	Union Pacific Rr Co	1700 Farnam St 10th FL S	Omaha NE 68102
8242 012 812	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 013 803	Sou Pac Co Sbe Par 17 Map 872-19-5d	16314 Valley Blvd	La Puente Ca 91744
8242 013 810	Sou Pac Co Sbe Par 26 Map 872-19-5e	16314 Valley Blvd	La Puente Ca 91744
8242 013 822	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 013 823	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 013 828	Sou Pac Co Sbe Par 28 Map 872-19-5e	16314 Valley Blvd	La Puente Ca 91744
8242 013 833	Sou Pac Co S B Of E Par 48 Map 872-19-5k	16314 Valley Blvd	La Puente Ca 91744
8242 013 834	Sou Pac Co Sb Of E Par 47 Map 872-19-5k	16314 Valley Blvd	La Puente Ca 91744
8242 013 836	Sou Pac Co Sb Of E Par 44 Map 872-19-5k	16314 Valley Blvd	La Puente Ca 91744
8242 013 837	Sou Pac Co Sb Of E Par 45 Map 872-19-5k	16314 Valley Blvd	La Puente Ca 91744
8242 013 838	Sou Pac Co Sb Of E Par 46 Map 872-19-5k	16314 Valley Blvd	La Puente Ca 91744
8242 013 840	Pac Trans Co Sou	16314 Valley Blvd	La Puente Ca 91744
8242 013 841	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 013 842	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 013 900	L A Co Flood Control Dist	500 W Temple St #754	Los Angeles Ca 90012
8242 013 901	Urban Development Agency Of	15660 Stafford St	City Of Industry Ca 91744
8242 013 902	Industry City	15625 Stafford St #100	City Of Industry Ca 91744
8242 013 903	Industry City	15625 Stafford St #100	City Of Industry Ca 91744
8242 015 039	Bear Investments LLC	16150 Stephens St	City Of Industry Ca 91745
8242 015 049	Bear Investments LLC	16150 Stephens St	City Of Industry Ca 91745
8242 015 056	Bear Investments LLC	16150 Stephens St	City Of Industry Ca 91745
8242 015 812	Sou Pac Trans Co Sb Of E Par 61 Map 872-	16314 Valley Blvd	La Puente Ca 91744
8242 016 023	Suburban Water Systems	1211 Center Court Dr	Covina Ca 91724
8242 016 058	Venus Foods Inc	770 S Stimson Ave	City Of Industry Ca 91745
8242 016 061	Abi Properties LLC	935 Lawson St	City Of Industry Ca 91748
8242 016 802	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 016 805	Union Pacific R R Co	1700 Farnam St 10th FL S	Omaha NE 68102
8242 016 806	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 016 807	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 016 808	Sou Pac Trans Co Sb Of E Par 61 Map 872-	16314 Valley Blvd	La Puente Ca 91744
8242 016 814	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 026 001	B & K Electric Wholesale	1225 S Johnson Dr	City Of Industry Ca 91745
8242 026 017	Pan American Ceramics	16610 Gale Ave	City Of Industry Ca 91745
8242 026 018	Frank E Raper	2010 Ainsley Ct	Carmichael Ca 95608
8242 026 048	16500 Gale LLC	16500 Gale Ave	City Of Industry Ca 91745
8242 026 049	Johnny Co Lin	3408 S Flemington Dr	West Covina Ca 91792
8242 028 001	Chia Development Corp	Po Box 307	Wilsonville Or 97070
8242 028 002	Kim Lighting Inc	584 Derby Milford Rd	Orange Ct 06477
8242 028 003	Chia Development Corp	9450 SW Commerce Cir #110	Wilsonville Or 97070
8242 028 004	Corporate Property Associates 6	50 Rockefeller Plz #2flr	New York Ny 10020

Owner List

PARCEL	OWNER	ADDRESS	CITY/STATE/ZIP
8242 028 800	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 028 801	So Calif Edison Co	16408 Gale Ave	City Of Industry Ca 91745
8242 030 002	Eastgroup Properties L P	Po Box 23636	Jackson Ms 39225
8242 030 003	Martin Co Hui	1239 Oakglen Ave	Arcadia Ca 91006
8242 030 004	Cast Parts Inc	Po Box 2348	Pomona Ca 91769

1000' Radius Map

ADDRESS: - 911 Bixby Dr
APN - 8242-013-901

Applicant : CH2M HILL
Doug Davy
2485 Natomas Park Dr Ste. 600
Sacramento, Ca 95833
(916) 286-0278

Map Prepared by: D.B.S., Inc.
(714) 744-2845
Date: ~~10/10/05~~ 9/3/10

N · Scale: 1" = 300'

ANTONIA GONZALEZ
16315 FOLGER ST
HACIENDA HEIGHTS CA 91745

GON WIN MAUNG
16321 FOLGER ST
HACIENDA HEIGHTS CA 91745

DONALD V SHORKEY
16327 FOLGER ST
HACIENDA HEIGHTS CA 91745

SHOU Y TSAI
16333 FOLGER ST
HACIENDA HEIGHTS CA 91745

DALE D CUMMINGS
16339 FOLGER ST
LA PUENTE CA 91745

CARLOS J & LUZ M MOSQUEDA
16345 FOLGER ST
HACIENDA HEIGHTS CA 91745

JUAN & MARGARITA FIERRO
16351 FOLGER ST
HACIENDA HEIGHTS CA 91745

HELEN HERNANDEZ
1104 FIELDGATE AVE
HACIENDA HEIGHTS CA 91745

SO CALIF EDISON CO
16408 GALE AVE
CITY OF INDUSTRY CA 91745

JAMES N CO-TR FRIZE
131 S EL DORADO LN
ANAHEIM CA 92807

JACK L PERRIN
1020 BIXBY DR
CITY OF INDUSTRY CA 91745

LBA RIV-CO I LLC
16639 GALE AVE
CITY OF INDUSTRY CA 91745

SOUTHERN PACIFIC TRANS CO
16314 VALLEY BLVD
LA PUENTE CA 91744

L A CO FLOOD CONTROL DIST
500 W TEMPLE ST #754
LOS ANGELES CA 90012

URBAN DEVELOPMENT AGENCY OF
15660 STAFFORD ST
CITY OF INDUSTRY CA 91744

CITY OF INDUSTRY
15625 STAFFORD ST #100
CITY OF INDUSTRY CA 91744

BEAR INVESTMENTS LLC
16150 STEPHENS ST
CITY OF INDUSTRY CA 91745

SUBURBAN WATER SYSTEMS
1211 CENTER COURT DR
COVINA CA 91724

VENUS FOODS INC
770 S STIMSON AVE
CITY OF INDUSTRY CA 91745

ABI PROPERTIES LLC
935 LAWSON ST
CITY OF INDUSTRY CA 91748

UNION PACIFIC R R CO
1700 FARNAM ST 10TH FL S
OMAHA NE 68102

B & K ELECTRIC WHOLESALE
1225 S JOHNSON DR
CITY OF INDUSTRY CA 91745

PAN AMERICAN CERAMICS
16610 GALE AVE
CITY OF INDUSTRY CA 91745

FRANK E RAPER
2010 AINSLEY CT
CARMICHAEL CA 95608

16500 GALE LLC
16500 GALE AVE
CITY OF INDUSTRY CA 91745

JOHNNY CO LIN
3408 S FLEMINGTON DR
WEST COVINA CA 91792

CHIA DEVELOPMENT CORP
PO BOX 307
WILSONVILLE OR 97070

KIM LIGHTING INC
584 DERBY MILFORD RD
ORANGE CT 06477

CORPORATE PROPERTY
ASSOCIATES 6
50 ROCKEFELLER PLZ #2FLR
NEW YORK NY 10020

EASTGROUP PROPERTIES L P
PO BOX 23636
JACKSON MS 39225

MARTIN CO HUI
1239 OAKGLEN AVE
ARCADIA CA 91006

CAST PARTS INC
PO BOX 2348
POMONA CA 91769