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VIA ELECTRONIC SUBMISSION

California Environmental Protection Agency
Air Resources Board

Competitive Power Ventures, Inc. hereby provides comments on the Draft South Coast Air Basin Electric Reliability and Offset Assessment.

The Draft Assessment correctly identifies the need for additional gas fired generation in the South Coast Air Basin and the existing constraints to permitting such generation due to a lack of sufficient emission offsets. However, the Draft Assessment is overly optimistic about the ability to meet near term needs in light of the existing permitting constraints. Specifically, the Draft Assessment places too much reliance on the ability to meet near term needs through re-powering of existing generating assets. While the Draft Assessment recognizes the need to develop alternative permitting strategies, it underestimates the urgency of the need and fails to recommend any specific strategies.

The enclosed comments include specific recommendations for addressing the current emission offset shortage, including taking full advantage of U.S. EPA's recent redesignation of the South Coast Air Basin to attainment with the federal PM10 standard, and implementation of a Clean Air Investment Fund as an alternative mechanism for satisfying the offset requirement.

Thank you for this opportunity to provide comments. We look forward to the agency's Final document.

Sincerely,

John H. Foster, III
Executive Vice President

Comments of Competitive Power Ventures, Inc. Regarding

Public Review Draft

Assembly Bill 1318: Assessment of Electric Grid Reliability Needs and Offset Requirements in the South Coast Air Basin

Competitive Power Ventures, Inc. ("CPV") appreciates the opportunity to provide comments on the Public Review Draft Assembly Bill 1318: Assessment of Electric Grid Reliability Needs and Offset Requirements in the South Coast Air Basin ("Draft AB1318 Report" or "Report").

CPV Experience in California and South Coast Air Quality Management District

CPV is a leading North American electric power generation development and asset management company headquartered in Silver Spring, Maryland, with offices in Braintree, Massachusetts, San Francisco, California, and Toronto, Canada. Nationally, CPV management has developed over 20,000 MW of power projects that are in operation, representing more than $10 billion in power generation assets. CPV concentrates on a clean energy strategy utilizing natural gas and wind-powered generation to meet growing demand across North America. Our highly-experienced team works closely with states and utilities to replace less efficient, older, more polluting resources with modern clean technology. With more than 5,000 megawatts of projects currently in various stages of development across North America, CPV is an industry leader.

CPV has a long and substantial track record in the California power market. All told, CPV management has developed close to 4,000 MW of new gas-fired generation in California in the last two decades. Amongst CPV's recently completed projects is the CPV Sentinel Energy Project, an 800-megawatt natural gas-powered electric generation facility located near Desert Hot Springs, California and within the jurisdiction of the South Coast Air Quality Management District ("SCAQMD"). This state-of-the-art energy project protects the region from dangerous blackouts and is necessary for the reliable integration of intermittent renewable energy resources into California's electric grid. The CPV Sentinel Energy Project was permitted over a three-year period from 2007-2010 and commenced commercial operations in 2013. Thus, CPV knows first-hand the existing constraints to developing new generating assets in Southern California.

Summary of Comments and Recommendations

The Draft AB318 Report correctly identifies the need for additional gas-fired generation in the South Coast Air Basin and the existing constraints to permitting such generation due to a lack of sufficient emission offsets. However, the Report is overly optimistic about the ability to meet near-term needs in light of the existing permitting constraints. Specifically, the Report places too much reliance on the ability to meet near-term needs through re-powering of existing generating assets. While the Report recognizes the need to develop alternative permitting strategies, it underestimates the urgency of the need and fails to recommend any specific strategies.

The SCAQMD, with support from the California Air Resources Board ("CARB"), should take full advantage of the opportunities presented by the U.S. Environmental Protection

Agency's ("U.S. EPA") recent redesignation of the South Coast Air Basin to attainment with the federal PM10 standard. This action could eliminate the need to offset PM10 emissions altogether, and, at a minimum, provides greater flexibility for addressing PM10 emissions. This is significant since PM10 is the pollutant for which offsets are in shortest supply. The SCAQMD and CARB should pursue any follow-up actions, including rulemaking and/or legislation necessary to fully realize the benefits of the redesignation.

For those pollutants that must be offset, CPV supports the immediate development and implementation of additional offset strategies. One possible approach that is discussed further below is the establishment of a Clean Air Investment Fund (CAIF), which would work as follows:

- a facility would seek to obtain any available offsets on the market at or below a predetermined offset price (e.g., similar to the SCAQMD Air Quality Management Plan cost-effectiveness benchmarks);

- if a sufficient supply is not available on the market, then the facility would purchase offsets from a pre-funded CAIF administered by the SCAQMD or by other appropriate publicly-accountable entities; and

- to the extent a sufficient offset supply is still not available, then the facility would pay the benchmark fee to the CAIF. The CAIF would invest in appropriate emerging low-emissions technologies that the SCAQMD determines will benefit attainment and help meet the region's public health objectives.

Detailed Comments

1. The ability to permit new generation in the SCAQMD is severely limited.

Due to a lack of available emission offsets on the open market, the only currently available means of permitting new generation within the SCAQMD is through reliance on an exemption from the offset requirement contained in SCAQMD Rule 1304(a)(2). This exemption, commonly referred to as the "re-powering exemption," is available to generators that re-power or replace electric utility steam boilers with advanced generation technologies with no increase in capacity. Developers of such projects are exempt from having to provide emission offsets to obtain a permit. However, in order to demonstrate compliance with federal requirements, the SCAQMD must make up for the emissions from these projects. It does so by deducting an equivalent amount of offsets from its own internal emission offset account. The SCAQMD's internal emission offset account contains a finite supply of offsets, and once offsets are deducted from the account, they are gone forever.

2. The Draft AB1318 Report is overly optimistic in its reliance on the re-powering exemption.

The Draft AB1318 Report incorrectly assumes that utilization of the re-powering exemption to re-power or replace existing once through cooling ("OTC") plants will be sufficient to meet the region's needs in the near term (i.e., through 2022). For example, the Report states,

"this assessment has identified OTC repowers as a potential strategy for meeting reliability needs through 2022" (Draft AB1318 Report, p. 14) and "repower or replacing all existing OTC power plants with conventional gas-fired generation would meet grid reliability requirements in the South Coast Air Basin through 2022" (Draft AB1318 Report, p. iv). This reliance on the re-powering exemption is misplaced for the reasons set forth below.

a. The Report relies on overly optimistic assumptions.

In determining the quantity of new generation that will be needed, the Report relies on overly optimistic assumptions, including the following:

- Virtually all existing OTC power plants that are required by the State Water Board's policy phasing out OTC practices will be able to re-power onsite or be replaced at an electrically equivalent location (Draft AB1318 Report, p. iii). It may not be possible to re-power all of the existing OTC plants as a result of factors, such as community opposition.

- The levels of energy efficiency, demand response, and other load-reducing policies identified in the Report will be realized (Draft AB1318 Report, p. iii). By its own admission, the levels and geographic specificity of preferred resources relied upon in the Report are unprecedented.

- The SCAQMD's permitting program will continue to be able to address the offsets obligation for the OTC power plants identified in the Report (Draft AB1318 Report, p. iii). The supply of offsets in the SCAQMD's internal emission offset account is finite and must be relied upon to permit a range of essential public services beyond power generation.

b. There are not sufficient megawatts available for re-powering.

Even if all of the overly optimistic assumptions identified above were to prove out, the Report itself acknowledges that OTC re-powers and replacements alone would not be sufficient to achieve the needs identified under the high bookend scenario. The Report states, "the upper limit of the high bookend exceeds the OTC repowering or replacement pool, and any increased electricity demand beyond the CEC-adopted forecast will likely require additional generation and/or increased demand-side reductions, especially due to the retirement of SONGS." (Draft AB1318 Report, p. 14).

c. Certain key factors are left out of the analysis altogether.

The Report identifies, but, by its own admission, fails to take into consideration, certain critical factors that will almost certainly increase the need for additional generation, including the following.

- The ISO's power flow studies used to determine local capacity requirements assumed that aging non-OTC power plant would continue operating (Draft

AB1318 Report, p. 19). Many of these plants are already beyond their expected useful life and will obviously not continue operating indefinitely.

- Since the ISO cannot provide a technical basis for apportioning renewable integration capacity within its balancing authority area, any capacity associated with renewable integration need is assumed to be located outside the SCAQMD boundaries (Draft AB1318 Report, p. 58). It is highly unlikely that this assumption would ever prove to be correct.

- Achieving current and future health-based air quality standards in the SCAQMD will require almost total electrification of the transportation sector. As conceded in the Report, but not factored into the analysis, further electrification will require even more generation development in Southern California (Draft AB1318 Report, p. 21).

d. A strategy that gets to 2022 is a short-term strategy at best.

Even if re-powering and replacement of OTC plants in reliance on the re-powering exemption could meet needs through 2022, which, as discussed above, it cannot, this would provide little comfort. In the context of planning, permitting, financing and developing new generation assets of the type needed here, the year 2022 is just around the corner. Solutions for bringing new generation on line to meet needs beyond the year 2022 must be in place now, or very soon.

e. Pending litigation could affect the availability of the re-powering exemption.

The Draft AB1318 Report fails to take into consideration the fact that SCAQMD Rule 1315, which establishes the accounting mechanism for SCAQMD's internal emission offset account upon which the re-powering exemption relies, is the subject of pending litigation (Communities for a Better Environment, California Citizens Against Toxics v. EPA, U.S. Court of Appeals, Ninth Circuit, Case No. 12-72353). The lawsuit challenges the U.S. Environmental Protections Agency's approval of Rule 1315 into the state implementation plan. While the implications of an outcome adverse to the U.S. EPA are unclear, previous state court litigation invalidating a prior version of Rule 1315 led the SCAQMD to suspend the availability of all offset exemptions and impose a moratorium on issuance of permits relying on such exemptions. If the Petitioners were to prevail before the Ninth Circuit, and the SCAQMD were to follow a path similar to that taken previously, the re-powering exemption could be unavailable for at least some period of time.

3. The SCAQMD, with support from CARB, should take full advantage of the U.S. EPA's redesignation of the South Coast Air Basin to attainment for the federal PM10 standard.

a. Redesignation eliminates federal offset requirement.

In July 2013, U.S. EPA approved the SCAQMD's PM10 redesignation request and maintenance plan and the South Coast Air Basin is now designated attainment for the 1987 federal PM10 standard (Draft AB1318 Report, p. 53). This means that it is no longer necessary to provide offsets for PM10 and its precursors as a matter of federal law. This is significant because PM10 emission offsets are in very short supply.

b. State law does not include offset requirement.

The South Coast Air Basin continues to be out of attainment with the more stringent State PM10 standard. Therefore, state law requirements for non-attainment pollutants continue to apply. However, state law does not contain an emission offset requirement per se.

Rather than requiring emission offsets on a source by source basis, state law contains what is generally referred to as a "no net increase" requirement for state non-attainment pollutants. California Health and Safety Code Section 40918 requires that plans for areas with moderate non-attainment and above include a "stationary source control program designed to achieve **no net increase** in emissions of non-attainment pollutants or their precursors for new or modified stationary sources which emit or have the potential to emit 25 tons per year or more of non-attainment pollutants or their precursors" (emphasis added).

The no net increase obligation can be satisfied by means other than offsets, including on a programmatic basis as opposed to a project-specific basis. This was made clear during amendments to the Health & Safety Code made in 1996 by AB3048. The AB3048 Floor Statement, dated August 19, 1996, reads as follows:

> "The 8/19 Amendments provide a legal basis for air districts to apply the "no net increase" rule on a district-wide basis rather than to a single source of pollution."

In particular, AB3048 amended Section 40920.5 as follows:

> 40920.5. Each district with extreme air pollution shall, to the extent necessary to meet the requirements of the plan developed pursuant to Section 40913, include the following measures in its attainment plan:
>
> ...
>
> (b) A ~~permitting~~ **stationary source control** program designed to achieve no net increase in emissions from new or modified stationary sources of nonattainment pollutants or their precursors.

...

The August 28, 1996 Cal-EPA Enrolled Bill Report provides further support for the proposition that the "no net increase" mandate is basin wide explaining that the 1996 amendments were designed to provide more flexibility for Districts in this regard. The Report's "Analysis" finds:

> AB 3048 would make the following changes to the California Clean Act.
>
> Provide air districts more flexibility in meeting not net increase requirements. The Act requires that air districts ensure that as industry grows industrial air pollution does not increase—the so called no net increase requirement. To do this, districts employ a two-pronged process. First, a business must install pollution controls to avoid or minimize emission increases. Second, if the business's emissions will still increase despite controls, it must offset the increase. One way to do this is with emission credits which are expensive and hard to find. AB 3048 would make clear that districts may apply no net increase to all industrial sources in the aggregate as opposed to requiring that each business show no net increase on it [sic] own. This will ease the burden on individual businesses while maintain the basic no net increase principle: first we must stop the air from getting dirtier before we can start to clean it up.

c. State law "no net increase" requirement does not apply to PM10.

Chapter 10 of the California Health and Safety Code (Section 40910, et seq.) contains the requirements for district plans to attain state ambient air quality standards, including the "no net increase" requirement discussed above. Section 40910 sets forth the Legislative Intent:

> "It is the intent of the Legislature in enacting this chapter that districts shall endeavor to achieve and maintain ambient air quality standards for ozone, carbon monoxide, sulfur dioxide and nitrogen dioxide by the earliest practicable date."

Notably absent in the list of pollutants is PM10, and this is consistent throughout the Chapter. For example, Section 40911 requires districts to submit plans for non-attainment areas of ozone, CO, SO2 and NO2 standards, but not PM10. All of the requirements for non-attainment pollutants that are contained in the remainder of the chapter, including the "no net increase" requirement, must be read within the context of the introductory statement of intent contained in Section 40910 which makes it clear that the requirements do not apply to PM10.

d. SCAQMD should amend its rules as necessary to bring them in line with state law.

To the extent that there is any ambiguity as to whether or not SCAQMD rules continue to require PM10 offsets even after the federal redesignation, SCAQMD should promptly amend their rules to bring them in line with the requirements of state law as discussed above.

4. For those pollutants that continue to be subject to the offset requirement, CPV supports establishment of a Clean Air Investment Fund as an additional means of satisfying the offset requirement.

CPV supports a three-tier approach for addressing the emission offset requirement:

- a facility would seek to obtain any available offsets on the market at or below a predetermined offset price (e.g., similar to the AQMP cost-effectiveness benchmarks);
- if a sufficient supply is not available on the market, then the facility would purchase offsets from a pre-funded clean air investment fund (CAIF)[1] administered by the SCAQMD or by other appropriate publicly-accountable entities; and
- to the extent a sufficient offset supply is still not available, then the facility would pay the benchmark fee to the CAIF. The CAIF would invest in appropriate emerging low-emissions technologies that the Board determines will benefit attainment and help meet the region's public health objectives.

a. The CAIF results in real emission offsets.

We believe that the proposed approach meets the criteria traditionally applied to emission offsets, as noted below:

Quantification - Under the proposal, we envision that the SCAQMD would identify a suite of qualifying clean (lower-emitting) technologies and establish reference points by which it could track or estimate the increased penetration (i.e., activity level) of the technologies and their relative emissions benefits. The SCAQMD has deep experience with just these sorts of accounting tasks.

Enforceability – The SCAQMD would establish appropriate conditions for any entity that qualifies for and receives funding under this proposed program. Here also, the

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1 The concept of a clean air investment fund has long been recognized as a valuable win-win strategy in these circumstances. *See, e.g.,* Presidential Memorandum, *id.* at 38429 ("The EPA will encourage the use of concepts such as a Clean Air Investment Fund, which would allow sources facing control costs higher than $10,000 a ton for any of these pollutants to pay a set annual amount per ton to fund cost-effective emissions reductions from non-traditional and small sources. Compliance strategies like this will likely lower the costs of attaining the standards through more efficient allocation, minimize the regulatory burden for small and large pollution sources, and serve to stimulate technology innovation as well.")

SCAQMD has extensive experience in enforcing the use of funds allocated under various existing funding programs.

Surplus – Under the proposal, the SCAQMD, the CARB and U.S. EPA, following public comment, would identify technologies whose commercialization or increased penetration could benefit the region's progress towards attainment and thus would be considered surplus. The agencies could verify benefit projections periodically and, as necessary, make adjustments to the program to ensure that the program, as a whole, continues to provide the necessary net benefits to satisfy the offset program requirements.

Timing – To ensure that sufficient net emissions reductions have been achieved prior to the commencement of operation of individual new sources, the SCAQMD should slightly front-load the program with advanced reductions. The SCAQMD has done this in the past with several of its emissions trading programs, including rules under Regulation XVI and the ridesharing program. This can be achieved by designating a fee that is slightly higher than anticipated to achieve the necessary reductions or by leveraging funds so that, in appropriate circumstances, funding recipients share some of the cost of introducing the qualifying technology.

b. The CAIF satisfies federal emission offset requirements.

Furthermore, even with respect to those pollutants for which the region continues to be non-attainment with the federal standards, or those areas within the jurisdiction of the SCAQMD that continue to be out of attainment with the federal PM10 standard (e.g., the Coachella Valley), we believe that the proposal outlined above comports with federal legal authority. The federal Clean Air Act grants California and the SCAQMD the necessary authority to implement the proposed offset reforms. Congress established the NSR offset program in 1977. In section 173 of the Act, Congress specified the manner in which the state would ensure that a new or modified major source net emission increases would be offset:

SEC. 173. PERMIT REQUIREMENTS.

(a) In General. The permit program required by section 172(b)(6) shall provide that permits to construct and operate may be issued if

(1) in accordance with regulations issued by the Administrator for the determination of baseline emissions in a manner consistent with the assumptions underlying the applicable implementation plan approved under section 110 and this part, the permitting agency determines that

(A) by the time the source is to commence operation, sufficient offsetting emissions reductions have been obtained, ***such that total allowable emissions from existing sources in the region, from new or modified sources which are not major emitting facilities, and from the proposed source will be sufficiently less than total emissions from existing sources*** (as determined in accordance with the regulations under this paragraph) prior to the application for such permit to construct or modify ***so as to represent (when considered together***

with the plan provisions required under section 172) reasonable further progress (as defined in section 171); or

. . . Any emission reductions required as a precondition of the issuance of a permit under paragraph (1) shall be federally enforceable before such permit may be issued.

. . .

(c) Offsets.

(1) The owner or operator of a new or modified major stationary source may comply with any offset requirement in effect under this part for increased emissions of any air pollutant only by obtaining emission reductions of such air pollutant from the same source ***or other sources in the same nonattainment area***, except that the State may allow the owner or operator of a source to obtain such emission reductions in another nonattainment area if . . . Such emission reductions shall be, by the time a new or modified source commences operation, in effect and enforceable and shall assure that the total tonnage of increased emissions of the air pollutant from the new or modified source shall be offset by an equal or greater reduction, as applicable, in the actual emissions of such air pollutant from the same or other sources in the area.

(2) Emission reductions otherwise required by this Act shall not be creditable as emissions reductions for purposes of any such offset requirement. ***Incidental emission reductions which are not otherwise required by this Act shall be creditable*** as emission reductions for such purposes if such emission reductions meet the requirements of paragraph (1).

(Emphasis added).

EPA has consistently interpreted this statutory language as providing the state (or air district) with considerable discretion in selecting the manner in which it or a source offsets any net emissions increases resulting from new source growth. EPA has, for example, explicitly recognized:

- that a state or air district may provide for offsets in the aggregate - i.e., across the region's entire emissions inventory (or portion thereof), by designating a portion of the applicable state implementation plan (SIP)[2] reductions for this purpose;

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2 Consider, for example, EPA's approval of the SCAQMD's Regional Clean Air Incentives Market (RECLAIM) program. *See, e.g.*, February 28, 1992 Letter from EPA Assistant Administrator William Rosenberg to James Lents Ph.D ("[T]he federal Clean Air Act does not require that offsets be secured by the new source. Rather, any portion of the necessary offsets may be generated by the efforts of the local air quality planning agency."); *see also* September 8, 1993 Letter from David Howekamp to James Lents, Ph.D; October 14, 1993 Letter from David Howekamp to James Lents, Ph.D; and Approval and

- that a state or air district may credit surplus minor source reductions;[3]
- that a state or region may credit reductions from area or mobile sources;[4]
- that a state may exempt certain sources from the requirement to provide emission offsets provided equivalency with federal requirements is achieved.[5]

Conclusions

CPV commends the California Air Resources Board for producing the Draft AB318 Report. The issues addressed in the Report are of critical importance to maintaining the reliability of the Southern California power grid. While CPV agrees directionally with many of the conclusions and recommendations contained in the Report, we believe that the Report is overly reliant on the re-powering exemption as a near-term solution to meeting the needs of the region for new generation. We believe that other strategies for permitting new generation must be developed immediately. This includes taking full advantage of U.S. EPA's redesignation of the South Coast Air Basin to attainment for the federal PM10 standard to eliminate the offset requirement for that pollutant. It also includes developing and implementing additional strategies to address those situations where offsets continue to be required. We further believe that there are other strategies that can be implemented in the near term and which comply with applicable legal and regulatory requirements, including the proposal contained in these comments. We look forward to working with other stakeholders to further develop and implement these strategies.

Promulgation of Implementation Plan for South Coast Air Quality Management District, EPA Direct Final Rule, 61 Fed. Reg. 64291 (December 4, 1996) to similar effect.

3 Consider, for example, EPA's approval of SCAQMD NSR rule crediting minor source reductions to avoid the otherwise-applicable 1.5 or 2:1 offset ratio.

4 *See, e.g.*, "Mobile Source Emission Reduction Credits – Guidelines for the Generation and Use of Mobile Source Emission Reduction Credits," California Air Resources Board (February 1994). The CARB MSERC Guidelines include specific criteria for generating credits using accelerated vehicle retirement, purchase of low-emitting buses and vehicles and vehicle retrofits. They note that MSERCs may be used for offset purposes provided that the mechanisms used to obtain the mobile source reductions are enforceable and legally binding. *See also* USEPA, "Interim Guidance on the Generation of Mobile Source Emission Reduction Credits" (FRL-4591-1, January 20, 1993 and subsequent related EPA guidance documents). For a specific example of EPA approval of MSERCs, see March 14, 2000 Letter from David Howekamp to Richard Sommerville regarding "Mobile Emission Reduction Credits" for the Otay Mesa Power Plant.

5 *See, e.g.,* EPA approval of SCAQMD Rule 1304.