Pio Pico Energy Center, LLC
Three Charles River Place
63 Kendrick Street
Needham, MA 02494

March 31, 2011

Ms. Melissa Jones, Executive Director
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: **Pio Pico Energy Center Project – 11-AFC-1**
Data Adequacy Supplement

Dear Ms. Jones:

Pio Pico Energy Center, LLC ("PPEC LLC") submits its Data Adequacy Supplement for the Pio Pico Energy Center project ("PPEC"). In accordance with the provisions of Title 20, California Code of Regulations, section 1707, PPEC attests to the truth and accuracy of the information contained in the Data Adequacy Supplement.

PPEC LLC looks forward to working with you and your staff to make this a successful project for all. Should you have any questions or concerns regarding this application, please contact Mr. David Jenkins, PPEC's Project Manager, at (317) 430-1004.

Sincerely,

Gary R. Chandler
President

Data Adequacy Supplement
Pio Pico Energy Center

Submitted to the

California Energy Commission

April 2011

Submitted by

Pio Pico Energy Center, LLC

With support from

URS

2020 East First Street, Suite 400
Santa Ana, California 92705

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ATTACHMENTS

DA RESPONSE

Data Adequacy Requirements and Staff's Related Information Requests

AIR QUALITY

Siting Regulation: Appendix B(g)(8)(A)

The information necessary for the air pollution control district where the project is located to complete a Determination of Compliance.

Information required for the AFC to conform to the regulations:
Please provide a copy of the letter of completeness from San Diego Air Pollution Control District.

DA Response:

A letter of completeness was received from the San Diego Air Pollution Control District on March 16, 2011. A copy of this letter is provided as Attachment A.

BIOLOGICAL RESOURCES

Siting Regulation: Appendix B(g)(13)(A)

A regional overview and discussion of terrestrial and aquatic biological resources, with particular attention to sensitive biological resources within (10) miles of the project. Include a map at a ten scale of 1:100,000 (or other suitable scale) showing sensitive biological resource location(s) in relation to the project site and related facilities and any boundaries of a local Habitat Conservation Plan or similar open space land use plan or designation. Sensitive biological resources include the following:

Information required for the AFC to conform to the regulations:
While the boundary of the Multiple Species Habitat Conservation Plan has been mapped, the boundaries of the San Diego National Wildlife Refuge were not. Please provide a map of the refuge boundaries. Also, a discussion of sensitive biological resources of the Refuge and MSCP must be provided.

DA Response:

Figure 5.6-1 Biological Study Area has been revised to include a map of the refuge boundaries and is included as Attachment B. A discussion of sensitive biological resources of the Refuge and MSCP is detailed below:

The study area is also located within the San Diego National Wildlife Refuge (NWR, Otay-Sweetwater Unit). The Otay-Sweetwater Unit includes a variety of habitats from coastal sage scrub and chaparral to oak woodland and freshwater marsh describe this inland refuge in San Diego's backcountry. The Otay-Sweetwater Unit is part of the National Wildlife Refuge System's contribution to the Multiple Species Conservation Plan, a program designed to conserve enough open space and habitat for species survival while enabling orderly development to occur where necessary. The Otay-Sweetwater Unit abundance of coastal sage and chaparral are an important addition to other inland preserves established to conserve and restore fast diminishing habitat. This inland refuge is home to such endangered birds as Least Bell's Vireo, California Gnatcatcher, the Quino Checkerspot and to the San Diego Horned Lizard. The approved refuge boundary for the San Diego Refuge is 44,000 acres, and 8,000 acres for the Vernal Pools Unit. The majority of the Pio Pico Project's study area is currently disturbed and/or bifurcated with existing dirt roads and bare ground of open graded fields and is absent of native habitat. Land use in the surrounding vicinity of the study area includes ruderal, non-native grasslands, developed areas, commercial, and public infrastructure and is not expected to impact the Otay-Sweetwater Unit.

The County of San Diego is coordinating with the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish & Game (CDFG) to protect sensitive species through the Multiple Species Conservation Program (MSCP) Plans. Many factors are considered in developing the draft covered species list, including, but not limited to, species distribution, life history, sensitivity and vulnerability to human activities, viability, dependence on conservation, current listing status, and likelihood to be listed as rare, threatened, or endangered in the future under the state or federal endangered species acts. These sensitive species are considered in the modeling and preserve design for each plan, under which the County pursues an incidental take permit from the USFWS and CDFG for species covered under each plan. The Pio Pico Project is located within the South County Subarea Plan which covers 85 sensitive, rare, threatened, and endangered plant and animal species. As individual species were listed as rare and endangered by the State or Federal Government, the County, USFWS and CDFG (Wildlife Agencies) and property owners would scramble to determine the most appropriate way the species could be protected -- sometimes resulting in small areas of open space causing confusion and conflict with economic growth issues. The overall effect of the MSCP is that it provides for large, connected preserve areas that address a number of species at the habitat level rather than species by species, and area-by-

area. This creates a more efficient and effective preserve system as well as better protection for the rare, threatened and endangered species in the region.

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(g)(13)(A)(iv)

Species covered by the Migratory Bird Treaty Act

Information required for AFC to conform to the regulations:
Please provide a list of species covered by the MBTA.

DA Response:

The Migratory Bird Treaty Act (MBTA) of 1918 implemented the 1916 convention between the United States and Great Britain for the protection of birds migrating between the U.S. and Canada. Similar conventions between the United States and Mexico (1936), Japan (1972) and the Union of Soviet Socialists Republics (1976) further expanded the scope of international protection of migratory birds. In total, 836 bird species are protected by the MBTA. A migratory bird is any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle. The following species listed below were observed during the biological survey for the project and are covered by the MBTA. Furthermore, no flyways, sensitive migratory bird areas or routes were identified with the region of the project (USFWS 2011, http://www.fws.gov/migratorybirds/)

ACCIPITRIDAE	**HAWKS, KITES, AND EAGLES**
Buteojamaicensis	Red-tailed Hawk
ARDEIDAE	**HERONS AND EGRETS**
Ardea alba	Great Egret
COLUMBIDAE	**PIGEONS AND DOVES**
Zenaidamcroura	Mourning Dove
FALCONIDAE	**FALCONS**
Falco sparverius	American Kestrel
ICTERIDAE	**NEW WORLD BLACKBIRDS AND ORIOLES**
Sturnellaneglecta	Western Meadowlark
POLIOPTILIDAE	**GNATCATCHERS**
Polioptila caerulea	Blue gray Gnatcatcher
TROCHILIDAE	**HUMMINGBIRDS**
Calypteanna	Anna's Hummingbird
TYRANNIDAE	**TYRANT FLYCATCHERS**
Sayornisnigricans	Black Phoebe
Tyrannusvociferans	Cassin's Kingbird
TYTONIDAE	**BARN OWLS**
Tyto alba	Barn Owl
MIMIDAE	**MOCKINGBIRDS AND THRASHERS**
Mimuspolyglottos	Northern Mockingbird

CORVIDAE	**JAYS AND CROWS**
Corvusbrachyrhynchos	American Crow
Corvuscorax	Common Raven
EMBERIZIDAE	**AMERICAN SPARROWS**
Zonotrichialeucophrys	White-crowned Sparrow
FRINGILLIDAE	**FINCHES**
Carpodacusmexicanus	House Finch

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(g)(13)(D)

A description and results of all field studies and seasonal surveys used to provide biological baseline information about the project site and associated facilities. Include copies of the California Natural Diversity Database records and field survey forms completed by the applicant's biologist(s). Identify the date(s) the surveys were completed, methods used to complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys. Include:

Information required for the AFC to conform to the regulations:
When available, provide results of surveys for San Diego fairy shrimp, vernal pool, and burrowing owl. Identify the date(s) the surveys were completed, methods used to complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys.

DA Response:

The wet season fairy shrimp and vernal pool survey will be completed in mid-April 2011 and provided to CEC when available. The burrowing owl surveys will also be completed during the discovery phase. CEC Staff has agreed that further surveys are not required for data adequacy.

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(g)(13)(D)(i)

Current biological resources surveys conducted using appropriate field survey protocols during the appropriate season(s). State and federal agencies with jurisdiction shall be consulted for field survey protocol guidance prior to surveys if a protocol exists;

Information required for the AFC to conform to the regulations:
Please undertake protocol surveys for San Diego fairy shrimp, vernal pool, and burrowing owl, and provide details of methodology and results. According to the USFWS Quino Survey Area Map (http://www.fws.gov/carlsbad/TEspecies/Documents/QuinoDocs/web-map20052.pdf), and Quino survey protocol (http://www.fws.gov/carlsbad/TEspecies/Documents/QuinoDocs/2002%20Quino%20protocol%20complete.pdf) the project falls within a recommended site assessment area. Please provide a copy of a recent site assessment.

DA Response:

The wet season fairy shrimp and vernal pool survey will be completed in mid-April 2011 and provided to CEC when available. The burrowing owl surveys will also be completed during the discovery phase. CEC Staff has agreed that further surveys are not required for data adequacy.

To comply with data adequacy request Appendix B(g)(13)(D)(i) URS conducted a site assessment to determine if the site can support quino checkerspot butterfly (QCB). The QCB site assessment was conducted on March 11, 2011 and is included as Attachment C.

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(g)(13)(F)(ii)

All off -site habitat mitigation and habitat improvement or compensation, and an identification of contacts for compensation habitat and management;

Information required for the AFC to conform to the regulations:
Please provide contacts and offsite habitat mitigation and/or improvement. If none is believed necessary, please provide rationale for decision.

DA Response:

As described in the County of San Diego report format and content requirements for biological resources (September 2010), mitigation for impacts to burrowing owl habitat along Alternative gas line route A would be offset through a contribution to a local conservation bank a ratio of 1:1. One possible bank option is the Crestridge Conservation Bank and the contact person is Stephen Juarez (858) 467-4212).

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(g)(13)(H)

Submit copies of any preliminary correspondence between the project and state and federal resources agencies regarding whether federal or state permits from other agencies such as the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the U.S. Army Corps of Engineers, the California Department of Fish and Game, and the Regional Water Quality Control Board will the proposed project be required

Information required for the AFC to conform to the regulations:
Please provide copies of any preliminary correspondence between PPEC and state and federal resource agencies regarding applicable federal or state permits from other agencies (e.g. USFWS, U.S. Army Corps of Engineers, the California Department of Fish and Game, or the Regional Water Quality Control Board).

DA Response:

At the time of the AFC filing, there had been no communication between PPEC and state and federal agencies. Subsequent to the filing, PPEC has entered into discussions with USFWS (Eric Porter) and CDFG (Libby Lucas). Copies of telephone conversation records documenting phone conversations with USFWS and CDFG are included as Attachment D.

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(i)(2)

The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.

Information required for the AFC to conform to the regulations:
Please provide contacts for the following agencies: USFWS, CDFG, USACE, and RWQCB.

DA Response:

Mr. Eric Porter
Biologist
U.S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California, 92011
Eric_Porter@fws.gov
(760) 431-9440

Ms. Elizabeth Lucas
Staff Environmental Scientist
California Department of Fish and Game
4949 Viewridge Avenue
San Diego, CA 92123
ELucas@dfg.ca.gov
(858) 467-4230

Ms. Therese Bradford
South Coast Branch Chief
USACE San Diego Section
6010 Hidden Valley Road Ste105
Carlsbad, CA 92011
therese.orourke@usace.army.mil
(760) 602-4830

Chad L. Loflen
Environmental Scientist
Northern Watershed Unit
California Water Quality Control Board - San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123
cloflen@waterboards.ca.gov
(858) 467-2727

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(i)(3)

A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.

Information required for the AFC to conform to the regulations:
Table 5.69-9 has been included which lists milestones, but no schedule has been developed. Please determine and provide a schedule for permitting outside of the Energy Commission's permitting authority.

DA Response:

Alternative gas line route A would require formal approvals for permits from the U.S. Army Corps of Engineers (federal Clean Water Act section 404 Nationwide Permit 39) and the Regional Water Quality Control Board (federal Clean Water Act section 401 Water Quality Certification). Formal approvals would also be required from the California Department of Fish and Game (Section 1600 Agreement) which the CEC has historically deferred to for that agency's permit functions. The following schedule would likely be implemented for those approvals

U.S. Army Corps of Engineers (USACE) Clean Water Act Section 404 Nationwide Permit (39)

- Determine application is complete = 30 days
- Review period ~ 60 days
- USACE issue a Nationwide Permit (NWP) ~ 45 days
- Approximate total time ~ 135 days

Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certification.

- The RWQCB would need to satisfy the California Environmental Quality Act (CEQA) to issue the 401 certification and so would require that the CEC complete its process as the CEQA lead agency before issuing the 401 certification.
- Determine application is complete = 30 days
- Review period ~ 30 days
- RWQCB issue a 401 ~ 60 days
- Approximate total time from submission ~ 120 days

California Department of Fish & Game (CDFG) Section 1600 (*et. seq.)* Agreement.

- The CDFG would need to satisfy the California Environmental Quality Act (CEQA) before executing the Section 1600 Agreement and so would require that the CEC complete its process as the CEQA lead agency before issuing the Section 1600 Agreement.

- Determine application is complete = 30 days
- Review period ~ 60 days
- CDFG issue a Streambed Alteration Agreement ~ 60 days
- Approximate total time ~ 120 days

CULTURAL RESOURCES

Siting Regulation: Appendix B(g)(2)(A)

A summary of the ethnology, prehistory, and history of the region with emphasis on the area within no more than a 5-mile radius of the project location.

Information required for the AFC to conform to the regulations:
Please derive a context for the prehistory of the area in a 5-mile radius around the appropriate project area of analysis. The basis for this context should be the information that the applicant provides in vols. II–V, app. K (Cultural Resources Assessment Report), vol. II, AFC.

DA Response:

Section 4.1 (Cultural Context of the Project Vicinity) is a new section that was added to the revised cultural technical report (provided in Attachment E), with new text summarizing the prehistoric context of the project vicinity. This new section contains a context for the prehistory of the area in a 5-mile radius around the appropriate project area as derived from information provided in Vols. II-V, Appendix K (Cultural Resources Assessment Report), Vol II, AFC, and other relevant scholarly publications and articles. The section also incorporates text that was originally present in the cultural technical report (Section 4.4 Conclusions). Once the Section 4.4 text was moved to the new Section 4.1, Section 4.4 was deleted.

The new Section 4.1 text pertaining to the prehistoric context of the project vicinity for the AFC is as follows:

> Prior to European arrival in California, the San Diego River area was inhabited by Yuman-speaking populations associated with the Cuyamaca complex. They were referred to as Diegueño by the Spaniards because of their affiliation with the Mission San Diego de Alcalá and were later referred to as Kumeyaay and their ancestors. This group is subdivided into two dialectical forms: the Ipai and the Tipai. The Ipai occupied a territory extending north of the San Diego River to just south of the San Luis Rey River. The Tipai territory extended from the San Diego River south into Baja California, Mexico.
>
> The prehistoric cultural context for the immediate environs of the proposed project area indicates that the earliest substantiated human presence in San Diego County occurred during the Paleoindian period (11,800 to 11,000 B.P.; Moratto 1984), represented by a cultural complex referred to as the San Dieguito. In the following Archaic Period, the introduction and rise in prominence of what has been termed the La Jolla complex occurred (8,200 to 1,300 B.P.; Warren et al. 1993). By the Late Prehistoric Period (±1,500-1,000 B.P. to circa 1769), several cultural complexes were identified within the confines of present-day San Diego County, particularly the San Luis Rey complex in northern San Diego County and the Cuyamaca complex in south (Moriarty 1966; Warren 1968; Robbins-Wade 2007). In the immediate project vicinity, archaeological understanding of the Otay Mesa region was at one time very limited, until the recent increase of cultural resource management studies which resulted in the identification, recordation, and excavation or testing of hundreds of archaeological sites. As noted by Robbins-Wade, the most frequently observed prehistoric archaeological site types on the mesa include lithic reduction sites and processing locations commonly found "on the edges of the canyons" (2007: 10). Other site types identified in the project vicinity by Robbins-Wade (2007) and others include residential base camps or "village" sites located at the heads of canyons and, specifically in the eastern portion of the mesa, "lithic quarry sites." It is the determination of Robbins-Wade

that "Otay Mesa appears to have been used mainly between 7000 and 2000 years ago, although use continued into the Late Prehistoric period" (2007: 13; cf. Robbins-Wade 1990).

During the Spanish period, Otay Mesa was relatively isolated. Only during the Mexican period were the Otay and Janal ranchos established to the Mesa's north but the actual Mesa itself remained undeveloped. During the American period, the area was not ranched or farmed systematically until the late nineteenth century when a couple small and short-lived towns were established to support a small community of farmers and ranchers. Even then, problems with unreliable water sources made farming challenging. The area remained primarily agricultural until the late 1960s, even after the introduction of the Brown Field NAAS during World War I. Beginning in the 1970s, drastic changes in land use occurred with the establishment of industrial developments, detention/prison facilities in the 1980s and the establishment of parks and refuges in the 1990s.

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(g)(2)(B)

The results of a literature search to identify cultural resources within an area not less than a 1-mile radius around the project site and not less than one-quarter (0.25) mile on each side of the linear facilities. Identify any cultural resources listed pursuant to ordinance by a city or county, or recognized by any local historical or archaeological society or museum. Literature searches to identify the above cultural resources must be completed by, or under the direction of, individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.

Copies of California Department of Parks and Recreation (DPR) 523 forms (Title 14 CCR §4853) shall be provided for all cultural resources (ethnographic, architectural, historical, and archaeological) identified in the literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines (36CFR60.4(g)). A copy of the USGS 7.5' quadrangle map of the literature search area delineating the areas of all past surveys and noting the California Historical Resources Information System (CHRIS) identifying number shall be provided. Copies also shall be provided of all technical reports whose survey coverage is wholly or partly within .25 mile of the area surveyed for the project under Section (g)(2)(c),or which report on any archaeological excavations or architectural surveys within the literature search area.

Information required for the AFC to conform to the regulations:
The presence or locations of the DPR 523 forms in the AFC is unclear. Staff requests that the applicant either provide a list clearly identifying the locations of the DPR 523 forms for all cultural resources identified in the literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines, (36CFR60.4(g)), or collect said forms into a separate appendix.

DA Response:

In revised Confidential Exhibits, being submitted in parallel to this Data Adequacy Supplement and under cover of an application for Confidentiality, tabs have been inserted between each report, each site record, and each DPR form. Also, an index is now provided at the beginning of each volume of the Confidential Exhibits. The index of each volume clearly identifies, as applicable, all previous cultural investigations within a quarter mile, all previously recorded site records received from the Information Center, and all updated and new 523 DPR forms.

Siting Regulation: Appendix B(g)(2)(C)

The results of new surveys or surveys less than 5 years old shall be provided if survey records of the area potentially affected by the project are more than five (5) years old. Surveys to identify new cultural resources must be completed by (or under the direction of) individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.

New pedestrian archaeological surveys shall be conducted inclusive of the project site and project linear facility routes, extending to no less than 200' around the project site, substations and staging areas, and to no less than 50' to either side of the right-of-way of project linear facility routes. New historic architecture field surveys in rural areas shall be conducted inclusive of the project site and the project linear facility routes, extending no less than .5 mile out from the proposed plant site and from the routes of all above-ground linear facilities. New historic architecture field surveys in urban and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.

Information required for the AFC to conform to the regulations:
The present technical report does not conform to the ARMR format. The technical report needs to more closely adhere to the direction of subsection VI.B.1.b of ARMR; develop, pursuant to section VII of ARMR, research designs for both the prehistoric and the historic archeological resource bases in the project area; incorporate the direction of section X of ARMR; and, to facilitate the development of appropriate mitigation measures, incorporate the direction of subsection XI.B of ARMR.

DA Response:

Attachment E contains a revised technical report that contains a revised section 4.1, a revised Section 7, and new Sections 8 and 9.

Revised section 4.1 (Cultural Context of the Project Vicinity) was added to the revised cultural technical report, with new text summarizing the prehistoric context of the project vicinity to more closely adhere to subsection VI.B.1.b of the ARMR (see also page 13).

Section VI.1 (Setting) of the ARMR states, in part "[p]rovide an overview of the archaeology of the study area, with the level of detail scaled to the undertaking size and type…As appropriate, include:

b. a review of the history (which may or may not include ethnographic period information) of the study area, particularly when historic archaeological resources are or could be present. Again, the depth and extent of this review should be scaled to the size and type of undertaking as well as the recognized patterns of historic land use" (CA-OHP 1990:8-9).*

URS made revisions to the cultural technical report, including the addition of a new section (Section 6 Research Design), pursuant to section VII of the ARMR (CA-OHP 1990). New text was included in this new section outlining the prehistoric and historic archaeological bases in the project area, including a discussion of period research domains/themes. Prehistoric research domains include: Chronology, Villages & Camps, Habitation Sites & Biotic Communities, Inland Use of Marine Resources, Lithic Quarrying, Toostone Preferences. Historic period research domains include: Military Use, Water Development/Management, and Agricultural Development.

Revised Section 7 (Recommendations and Conclusions) has moved and new text has been added to create two new sections: Section 8 (Determinations and Interpretations) and Section 9 (Management Considerations). These actions were taken to better incorporate the direction of Section X and Subsection XI.B of the ARMR.

New Section 8 (Determinations and Interpretations) summarizes results of fieldwork, taking into consideration the research domains and questions presented in the research design.

New Section 9 (Management Considerations) includes previously submitted text as well as new text. Section 9.1 (Summary of Cultural Resources within Project Site, Including Evaluation of Uniqueness) was added to the technical report to summarize all cultural resources identified within the project site. Included is a new table (Table 7) listing all resources identified within the project site, their description, recordation history, whether they were relocated during the URS survey, and their evaluation or significance recommendations/determinations.

***** California Office of Historic Preservation (CA-OHP). 1990. *Archaeological Resource Management Report (ARMR): Recommended Contents and Format*. February 1990. Available online at *ohp.parks.ca.gov/pages/1054/files/armr.pdf. Accessed on March 17, 2011.*

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(g)(2)(C)(iii)

Copies of all new and updated DPR 523(A) forms. If a cultural resource may be impacted by the project, also include the appropriate DPR 523 detail form for each such resource;

Information required for the AFC to conform to the regulations:
The presence or locations of the DPR 523 forms in the AFC is unclear. Staff requests that the applicant either provide a list clearly identifying the locations of all new and updated DPR 523(A) forms, or collect said forms into a separate appendix.

DA Response:

In revised Confidential Exhibits, being submitted in parallel to this Data Adequacy Supplement and under cover of an application for Confidentiality, tabs have been inserted between each report, each site record, and each DPR form. Also, an index is now provided at the beginning of each volume of the Confidential Exhibits. The index of each volume clearly identifies, as applicable, all previous cultural investigations within a quarter mile, all previously recorded site records received from the Information Center, and all updated and new 523 DPR forms.

LAND USE

Siting Regulation: Appendix B(g)(3)(C)

A discussion of the legal status of the parcel(s) on which the project is proposed. If the proposed site consists of more than one legal parcel, describe the method and timetable for merging or otherwise combining those parcels so that the proposed project, excluding linears and temporary laydown or staging area, will be located on a single legal parcel. The merger need not occur prior to a decision on the Application but must be completed prior to the start of construction.

Information required for the AFC to conform to the regulations:
Please provide a discussion of the legal status of the parcel(s) on which the project is proposed.

DA Response:

The project site (9.99-acre parcel, with APN 648-040-45) and the laydown area (6.00 acres of a 9.68 acre parcel with APN 648-040-46) are both legal parcels created under parcel map PM 20473 on file with the County of San Diego. Alta Parcels, L.P. is the legal owner of the parcels. A copy of PM 20473 is provided in Attachment F.

The project site parcel (APN 648-040-45) is under a lease option with PPEC. All direct project facilities and operations will be located on this one parcel; no parcel merger or sub-division is required to accommodate the project. The property address is 7363 Calzada de la Fuente, San Diego, CA 92154.

PALEONTOLOGICAL RESOURCES

Siting Regulation: Appendix B(i)(1)(A)

Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and

Information required for the AFC to conform to the regulations:
Should include reference to paleontological guidelines developed by the City of San Diego in 1998.

DA Response:

Reference to the City of San Diego Paleontological Guidelines has been added to Table 5.8-1 and Section 5.8.5.3 of the Paleontological Resources section, under the category "Local". A revised Table 5.8-1 to replace the one in the AFC is provided below, followed by the additional text added to Section 5.8.5.3. See inserts below in bold text.

TABLE 5.8-1
APPLICABLE PALEONTOLOGICAL RESOURCES LAWS, ORDINANCES, REGULATIONS, AND STANDARDS

LORS	Applicability	Agency	Section
Federal			
Antiquities Act of 1906	Protects paleontological resources on federal lands; therefore, not applicable.	BLM	5.8.5.1
National Environmental Policy Act, 1969	Protects paleontological resources on federal lands; therefore, not applicable.	USEPA	5.8.5.1
Paleontological Resource Preservation Act, 2009	Protects paleontological resources on federal lands. Provides for permitting scientific collecting by qualified persons. Establishes penalties for illegal collecting.	BLM	5.8.5.1
State			
California Environmental Quality Act	Regulates industrial/residential development projects. Project direct or indirect impacts on unique paleontological resources or site – resource assessment, monitoring, and mitigation required (superseded by CEC process).	CEC	5.8.5.2
Public Resources Code Sections 5097.5/5097.9	Protects paleontological resources on state-owned or managed lands.	CEC	5.8.5.2

LORS	Applicability	Agency	Section
Local			
San Diego County Grading, Clearing, and Watercourses Ordinance.	States that County Officials may require that a qualified paleontologist be present during grading operations to monitor for resources	County	
San Diego County Draft General Plan, Conservation and Open Spaces elements	Promotes conservation of paleontological resources within the county for educational and scientific purposes and requires salvage of paleontological resources in county-permitted projects.	San Diego County Department of Planning and Land Use	5.8.5.3
City of San Diego Paleontological Guidelines	**Describes steps in the environmental review process, provides evaluation tools and resources, discusses professional qualifications, and reporting format and contents, and provides guidelines for mitigation, monitoring, and reporting programs.**	**City of San Diego Development Services Department**	**5.8.5.3**
Professional Standards			
Society of Vertebrate Paleontologists	Paleontological Resources – Nationwide. Recommended set of procedures and standards for assessing and mitigating impacts to vertebrate paleontological resources.	n/a	n/a

BLM = Bureau of Land Management
CEC = California Energy Commission
USEPA = U.S. Environmental Protection Agency

5.8.5.3 Local

County of San Diego

Finding 1 of the County of San Diego General Plan, Conservation Element (County of San Diego, 1975) states that it is the state's policy to "conduct a study of the state's total effort to preserve and salvage the archaeological, paleontological, and historical resources of the state." Unless the General Plan tacitly regards paleontological resources as a subset of cultural resources, then the General Plan has no provisions for paleontological resources. The County is updating its General Plan. The Conservation and Open Space element of the Draft General Plan lists Goal COS-9 as "Educational and Scientific Uses. Paleontological resources and unique geologic features conserved for educational and/or scientific purposes." Policy COS-0.1 is "Preservation. Require the salvage and preservation of unique

paleontological resources when exposed to the elements during excavation or grading activities or other development processes."

The San Diego County Grading, Clearing, and Watercourses Ordinance states that County Officials may require that a qualified paleontologist be present during grading operations to monitor for resources.

The East Otay Mesa Business Park Specific Plan does not mention paleontological resources.

City of San Diego

The City of San Diego Paleontological Guidelines (City of San Diego, 2002) describe steps in the environmental review process, provide evaluation tools and resources, discuss professional qualifications, and reporting format and contents, and provide guidelines for mitigation, monitoring, and reporting programs.

PROJECT OVERVIEW

Siting Regulation: Cal. Code Regs., tit. 20, § 1704, (a)(4)

Each principal subject area covered in a notice or application shall be set forth in a separate chapter or section, each of which shall identify the person or persons responsible for its preparation.

Information required for the AFC to conform to the regulations:
Please provide the name of the person responsible for preparing the following sections: Alternatives, Facility Description, Project Objectives and Cumulative Impacts.

DA Response:

The Alternatives section was prepared by Dave Jenkins/Pio Pico Energy Center, LLC.

The Facility Description was prepared by Mike King/Pio Pico Energy Center, LLC and Craig Kebodeaux/Kiewit.

The Project Objectives section was prepared by Dave Jenkins/Pio Pico Energy Center, LLC.

The Cumulative Impacts section was prepared by Jennifer Wu/URS Corporation.

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(b)(1)(A)

Maps at a scale of 1:24,000 (1" = 2000'), (or appropriate map scale agreed to by staff) along with an identification of the dedicated leaseholds by section, township, range, county, and county assessor's parcel number, showing the proposed final locations and layout of the power plant and all related facilities.

Information required for the AFC to conform to the regulations:
Please provide new figures with accurate map scales.

DA Response:

Please refer to the revised Figure 3.3-1, at a scale of 1:24,000, included in Attachment G of this Data Adequacy Supplement.

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(b)(1)(B)

Scale plan and elevation drawings depicting the relative size and location of the power plant and all related facilities to establish the accuracy of the photo simulations required in Sections (a)(1)(D) and (g)(6)(F);

Information required for the AFC to conform to the regulations:
Please provide new figures with accurate map scales.

DA Response:

Please refer to Attachment H of this Data Adequacy Supplement for Figures 3.1-3A, 3.1-3B, and 3.5-1, which have been revised with accurate map scales.

Siting Regulation: Appendix B(b)(2)(B)

A full-page color photographic reproduction depicting a representative above ground section of the transmission line route prior to construction and a full-page color photographic simulation of that section of the transmission line route after construction.

Information required for the AFC to conform to the regulations:
Please provide a representative above ground section of the transmission line route prior to construction and a full-page color photographic simulation of that section of the transmission line route after construction.

DA Response:

Full-page color photographic reproductions depicting representative above ground sections of the transmission line Route A and Route B, prior to and after construction, are presented in Figures 3.7-3A and 3.7-3B (Route A) and 3.7-4A and 3.7-4B (Route B) in Attachment I of this Data Adequacy Supplement. The viewpoints presented are representative of the views from Calzada de la Fuente (for Route A) and Paseo de la Fuente Court (Route B), which are accessible by the public.

SOILS

Siting Regulation: Appendix B(g)(15)(A)(iii)

The location of any proposed fill disposal or fill procurement (borrow) sites; and…

Information required for the AFC to conform to the regulations:
The grading plan (Appendix I-3) indicates unbalanced earthwork, with 6152 cubic yards of cut and 11,925 cubic yards of fill. Please identify the location of proposed fill procurement (borrow) sites.

DA Response:

The cut and fill volumes on the preliminary grading plan are for surface grading only, and do not take into account excavations for major foundations and duct bank during construction. It is anticipated that the excavated material will balance the cut and fill, and neither import nor export of soils will be required.

TRANSMISSION SYSTEM DESIGN

Siting Regulation: Appendix B(b)(2)(C)

A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights of way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators.

Information required for the AFC to conform to the regulations:

1. *Provide a detailed one-line diagram for the existing Otay Mesa switchyard before the interconnection of the project.*

2. *Provide a detailed one-line diagram for the Otay Mesa switchyard after addition of the project.*
   - *Show bay arrangement and the necessary equipment which are required to interconnect the project.*
   - *Provide ratings of the breakers, disconnect switches, relays, buses, and etc.*

3. *Provide the required auxiliary load of the proposed project in MW.*

DA Response:

1. The detailed one-line diagram for the existing Otay Mesa switchyard before the interconnection of the project is provided on Figure 3.7-2 (Attachment J of this Data Adequacy Supplement).

2. The detailed one-line diagram for the Otay Mesa switchyard after addition of the project is provided on Figure 3.7-2. The bubbled portion of the diagram indicates equipment added for the power plant connection.

3. The auxiliary load of the proposed project is approximately 8 MW.

Data Adequacy Requirements and Staff's Related Information Requests

Siting Regulation: Appendix B(i)(3)

A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.

Information required for the AFC to conform to the regulations:
Provide a schedule describing when the CAISO Cluster Study (Phase I and Phase II) of the proposed project would be available for Energy Commission staff review.

DA Response:

CAISO Cluster Study Phase I was completed and the report issued November 15, 2010. Pio Pico Energy Center submitted the required financial security for Cluster Study Phase II on February 15, 2011. The Phase II study is underway and expected to be complete and available for Energy Commission staff review in October 2011.

WATER RESOURCES

Siting Regulation: Appendix B(g)(1)

...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.

Information required for the AFC to conform to the regulations:
Please include discussion of project impacts if recycled water system is not available as expected and potable water is required instead.

DA Response:

As described in the AFC, PPEC will use recycled water provided by Otay Water District (OWD) to meet process water demands. The project's annual demand for recycled water will be approximately 380 acre feet per year (afy). The will-serve letter from OWD (see AFC Appendix I-1) confirms that adequate water supply is available for the project.

The AFC also discussed and evaluated the potential impacts in the event that OWD does not have its planned recycled water system expansion project in service when PPEC begins operation. This evaluation was presented in case the system was not completed by PPEC's commercial online date, but was completed shortly thereafter (e.g. within a few years). OWD also confirmed that it has adequate potable water supply to meet the project's demands during this interim period (see will-serve letter in AFC Appendix I-1).

In the unlikely and unforeseen event that the planned recycled water system expansion does not become operational during the PPEC's service life, the impacts to potable water supplies and wastewater disposal would still be considered less than significant. If the PPEC uses potable water in lieu of recycled water, it will consume a maximum of approximately 370 afy of potable water (instead of approximately 380 afy of recycled water). This is 0.9 percent of the 40,000 afy of potable water that OWD distributes to its customers. There would be a similar decrease in the resultant annual amount of wastewater discharge (approximately 68 afy based on potable water usage compared with approximately 78 afy based on recycled water usage); however, the peak daily wastewater discharge would be approximately the same (i.e., approximately 0.15 million gallons per day [mgd]). As such, the peak daily wastewater discharge from PPEC, whether it uses recycled water or potable water will be approximately 15 percent of the East Otay Mesa Sewer Maintenance District's 1.0 mgd allotment and less than one percent of the wastewater treatment capacity at the Point Loma Wastewater Treatment Plant. Therefore, impacts will be less than significant.

For similar reasons as stated above and in AFC Section 5.5.3.6, the project also will not contribute to a cumulatively significant impact to potable water supplies or wastewater treatment. Therefore, cumulative impacts of the project will be less than significant.

Siting Regulation: Appendix B(g)(14)(C)(iii)

Average and maximum daily and annual water demand and waste water discharge for both the construction and operation phases of the project;

Information required for the AFC to conform to the regulations:
Please include the average and maximum daily and annual water demand and waste water discharge for both the construction and operation phases of the project.

DA Response:

Construction: The maximum daily, average daily and average annual water supply and wastewater disposal flows during construction are summarized below.

	Maximum Daily (1,000 gpd)	Average Daily (1,000 gpd)	Annual (afy)
Construction Water Demand:			
• Dust Suppression and soil compaction[1]	30	23	26
• Hydrotest water[2]	840	280	2
Construction Wastewater Discharge: • Hydrotest discharge to sewer [3]	280	280	2

Notes:

1. Dust suppression and soil compaction water demand assumed to occur over entire 16-months construction period (See AFC Page 5.5-15).

2. The estimated total amount of water to be used for hydrostatic testing purposes is approximately 840,000 gallons (See AFC Page 5.5-15). The length of time to fill the water tanks can be varied as needed. As a conservative assumption, this table assumes that all of the hydrotest water is provided on one day for the maximum daily value and over three days for the average daily value.

3. Construction water used for dust control and soil compaction will not result in discharge offsite. Only the water used for hydrostatic testing will be discharged into the sewer. Assuming that the total volume of hydrostatic testing water will be discharged into the sewer over three days, the estimated peak daily discharge will be approximately 0.28 mgd (See AFC Page 5.5-15).

Operation: The maximum daily, average daily and average annual water supply and wastewater disposal flows assuming that recycled water will be used for process water supply are summarized below (and in AFC Table 5.5-3).

	Maximum Daily (1,000 gpd)	Average Daily (1,000 gpd)	Annual (afy)
Process Water Supply (Recycled Water)	825	338	379
Domestic Water Supply (potable water)	3	1	1
Wastewater (sanitary and process wastewater)	153	70	78

In the unforeseen and unlikely event that potable water is used for process water supply, the maximum daily, average daily and average annual water supply and wastewater disposal flows are summarized below.

	Maximum Daily (1,000 gpd)	Average Daily (1,000 gpd)	Annual (afy)
Process Water Supply (Potable Water)	825	329	369
Domestic Water Supply (potable water)	3	1	1
Wastewater (sanitary and process wastewater)	153	61	68

Siting Regulation: Appendix B(g)(14)(E)(i)

The effects of project demand on the water supply and other users of this source including, but not limited to, water availability for other uses during construction or after the power plant begins operation, consistency of the water use with applicable RWQCB basin plans or other applicable resource management plans, and any changes in the physical or chemical conditions of existing water supplies as a result of water use by the power plant;

Information required for the AFC to conform to the regulations:
AFC states "In the event that the expanded recycled water system has not been completed and is not operational, PPEC would rely on potable water… until such time that recycled water became available." (5.5.2) Please include the effects of project demand on potable water supply if recycled water system is not available as expected.

DA Response:

In the unlikely and unforeseen event that the planned recycled water system expansion does not become operational during the PPEC's service life, the impacts to potable water supplies and wastewater disposal would still be considered less than significant. If the PPEC uses potable water in lieu of recycled water, it will consume a maximum of approximately 370 afy of potable water (instead of approximately 380 afy of recycled water). This is 0.9 percent of the 40,000 afy of potable water that OWD distributes to its customers.

Siting Regulation: Appendix B(g)(14)(vii)

All assumptions, evidence, references, and calculations used in the analysis to assess these effects.

Information required for the AFC to conform to the regulations:
Please include the effects of project demand on potable water supply if recycled water system is not available as expected.

DA Response:

As described on page 30 of this Data Adequacy Supplement, in the unlikely and unforeseen event that the planned recycled water system expansion does not become operational during the PPEC's service life, the impacts to potable water supplies would still be considered less than significant. If the PPEC uses potable water in lieu of recycled water, it will consume a maximum of approximately 370 afy of potable water (instead of approximately 380 afy of recycled water). This is 0.9 percent of the 40,000 afy of potable water that OWD distributes to its customers. The maximum daily, average daily and average annual water supply flows under this scenario are summarized below (and as provided page 32 of this Data Adequacy Supplement).

	Maximum Daily (1,000 gpd)	Average Daily (1,000 gpd)	Annual (afy)
Process Water Supply (Potable Water)	825	329	369
Domestic Water Supply (potable water)	3	1	1