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Memorandum

Date: June 21, 2016
Telephone: (916) 654-4894
File: 15-AFC-02

To: Commissioner Karen Douglas, Presiding Member
Commissioner Janea A. Scott, Associate Member
Hearing Officer Susan Cochran

From: California Energy Commission - Mike Monasmith
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Subject: MISSION ROCK ENERGY CENTER (15-AFC-02)
ISSUES IDENTIFICATION REPORT

In response to the June 17, 2016 Notice of Public Site Visit, Environmental Scoping Meeting and Informational Hearing, attached is staff's Issues Identification Report for the Mission Rock Energy Center (Mission Rock). This report serves as a preliminary scoping document that identifies issues that Energy Commission staff believes will require careful attention and consideration or could affect the schedule. Energy Commission staff will discuss the issues identified in this report at the June 28, 2016 Environmental Scoping Meeting and Informational Hearing.

This Issues Identification Report also provides a proposed schedule for the Committee's consideration, with tentative dates for key proceeding events proposed by staff.

cc: Proof of Service List
Docket 15-AFC-02

MISSION ROCK ENERGY CENTER

(15-AFC-02)

ISSUES IDENTIFICATION REPORT

CALIFORNIA ENERGY COMMISSION

Siting, Transmission and Environmental Protection Division

MISSION ROCK ENERGY CENTER ISSUES IDENTIFICATION REPORT

(15-AFC-02)

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ISSUES IDENTIFICATION REPORT

Energy Commission Staff Report

PURPOSE OF THE REPORT

This report has been prepared by the California Energy Commission staff to inform the Committee and all interested parties of the potential issues that may affect the Mission Rock Energy Center (Mission Rock) proceeding schedule or scope. These issues have been identified as a result of our initial discussions with, federal, state, and local agencies, and our review of the Mission Rock Application for Certification (AFC), filed December 30, 2015, and Data Adequacy Supplement material filed on April 29, 2016. This Issues Identification Report contains a project description, summary of potentially significant issues, and a proposed project schedule. Staff will continue to address the status of issues and progress towards their resolution via periodic status reports provided to the Committee.

PROJECT DESCRIPTION

Applicant Mission Rock Energy Center, LLC (owned by Calpine Company) proposes to construct, own and operate an electrical generating facility in Ventura County, California, approximately 2 miles west of Santa Paula, near Highway 126. The facility would be a natural gas-fired, simple-cycle power plant comprising five combustion turbine generators (CTGs), with a combined nominal generating capacity of 255 megawatts (MW). Additionally, Mission Rock would house twenty (20) on-site ion battery units for the storage of electricity, providing an additional 100 MWhours (25 MW for up to 4 hours) of nominal capacity. The CTGs would also be fitted with clutch systems enabling synchronized condenser operation to provide voltage (Volt-Ampere Reactive or "VAR") support to the local grid without contemporaneous operation of the combustion turbines.

The project elements include:

- Five GE Energy LM6000 PG CTGs equipped with selective catalytic reduction (SCR) and oxidation catalyst air emissions control technologies and associated support equipment for nitrogen oxides (NO_x) and carbon monoxide (CO) control.
- The CTGs could operate at partial load, to a minimum load of 25 percent. Operational modes would be driven by good operating practices, market conditions, and dispatch requirement.
- Lithium-ion batteries housed in metal-enclosed systems that could be operated in conjunction with the power plant, or separately. Twenty separate enclosures would house the batteries, inverters, step-up transformers and site controller. The nominal 100 MWh (25 MW for a four-hour period) would be used for voltage support, peaking power and other ancillary services.
- Recycled water for Mission Rock would be supplied by the local agribusiness corporation, Limoneira Company. Limoneira would provide recycle lemon wash and sanitary sewer wastewater from their packing house and farm worker housing sanitary

sewer discharges. Once at Mission Rock, demineralizer equipment, mounted on portable skids and proposed for location in the northeastern quadrant of the proposed facility, would purify recycled Limoneira water for industrial plant process requirements, including steam production.

- Industrial wastewater from cooling tower blow-down and other power plant processes would be discharged to Green Compass/Patriot Environmental services, and sanitary wastewater would be collected and hauled offsite by Green Compass/Patriot or another licensed waste hauler.
- Temporary construction laydown/parking facilities would encompass a 2.89-acre worker parking and laydown area immediately north of the proposed Mission Rock site.

LINEAR FEATURES

Mission Rock would connect its nominal 255 MWs of capacity to SCE's existing Santa Clara substation. Transmission interconnection would be comprised of a 6.6 mile-long 230-kilo Volt (kV) overhead line. The overhead line would use 36 transmission poles, ranging in height from approximately 80 to 200 feet above the ground. **Project Location Figure 1.2-2** shows the general arrangement of the proposed transmission system. The Title 22 recycled water would be from the Limoneira Company, conveyed through a 1.7 mile recycled water pipeline to the Mission Rock site, also depicted on the figure. The final linear feature depicted in the figure is the natural gas connection, a new 2.4 mile, 16-inch-diameter pipeline that would run southwest from the Mission Rock site along Shell Road and the Southern Pacific Railroad right-of-way to interconnect with Southern California Gas Company's (SoCal Gas) existing high-pressure natural gas transmission pipeline (Line 404/406).

ENVIRONMENTAL JUSTICE

As required under the environmental justice policy of the California Natural Resources Agency, the Energy Commission must consider environmental justice in its decision-making process if the Commission's actions would have an impact on the environment, environmental laws, or policies. California law defines environmental justice as "the fair treatment of people of all races, cultures and income with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Gov. Code, § 65040.12; Pub. Resources Code, § 72000). Energy Commission staff will be conducting demographic screening to identify environmental justice populations based on race and ethnicity and environmental justice populations based on poverty. Demographic screening is based on two federal guidance documents: Guidance Under the National Environmental Policy Act and Guidance for Incorporating Environmental Justice Concerns in EPA's Compliance Analyses. If an environmental justice population exists within areas potentially affected by the project, staff's analyses in the technical disciplines of Air Quality, Hazardous Materials Management, Land Use, Noise and Vibration, Public Health, Socioeconomics, Soil and Water Resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, and Waste Management will consider the impacts of the project on the environmental justice population.

Project Location Figure 2.2-1

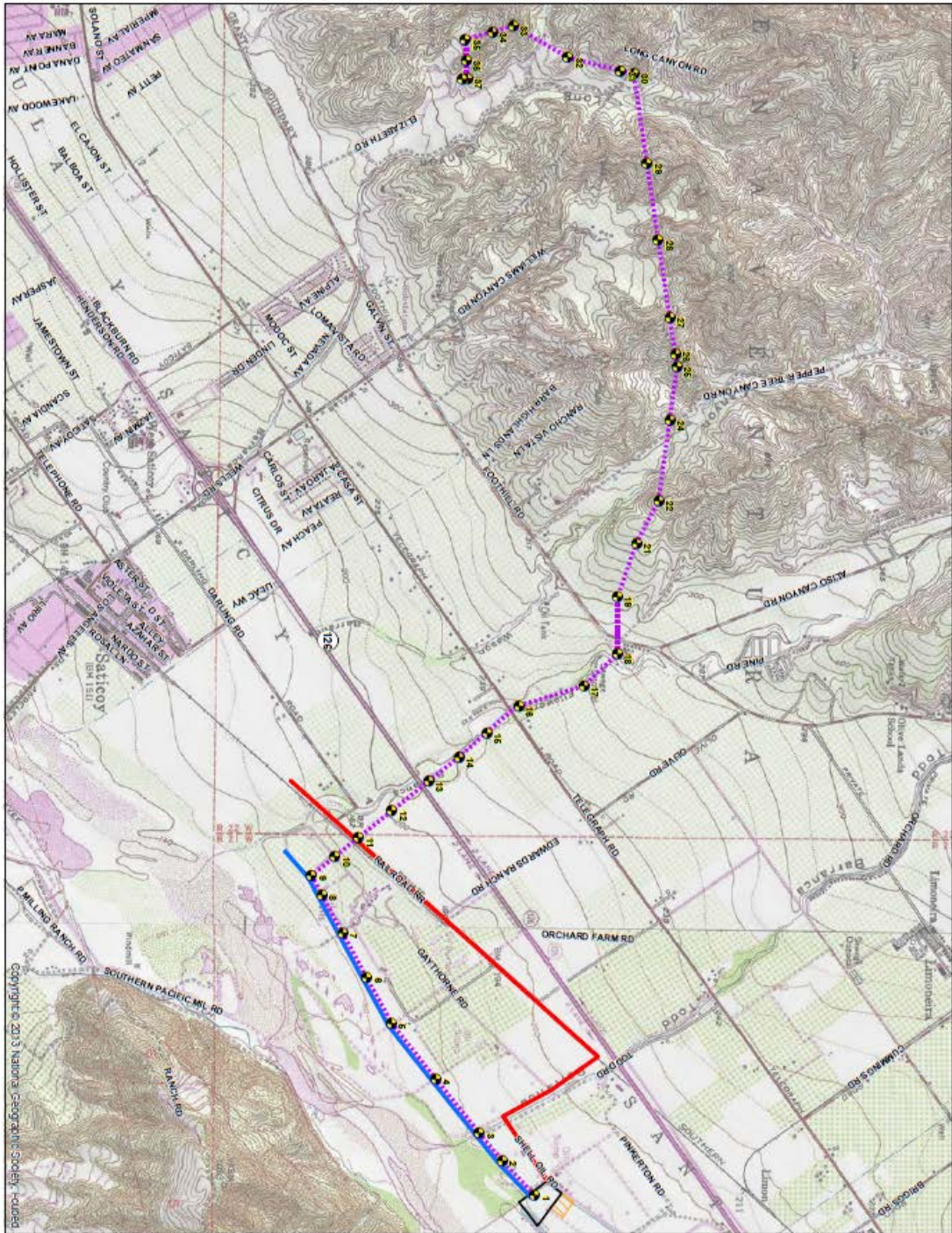


Figure 12-2
Project Location
 Mission Rock Energy Center
 Ventura County, California



- LEGEND**
- Project Site
 - Laydown Area
 - Tower
 - Natural Gas Pipeline Route
 - Generator Tie-Line
 - Process Water Supply Line



POTENTIAL MAJOR ISSUES

This portion of the report contains a discussion of the potential major issues the Energy Commission staff has identified to date. The Committee should be aware that this report might not include all of the significant issues that may arise during this proceeding. The discovery phase of the proceeding has just commenced (as of May 17, 2016), and other parties and members of the public have not yet had an opportunity to identify their concerns or raise issues for staff to investigate and resolve. The identification of the potential issues contained in this report is based on comments received from the public as well as government agencies and Staff's independent analysis and judgment regarding whether any of the following circumstances could occur:

- Potential significant impacts which may be difficult to mitigate;
- Potential areas of non-compliance with applicable laws, ordinances, regulations or standards (LORS); and,
- Areas of conflict or potential conflict between the parties for which resolution may be difficult to achieve with resulting schedule delays.

This report will not limit the scope of staff's analysis throughout this proceeding, but it helps guide the initial areas of analyses regarding potentially significant issues that the Mission Rock proposal raises. The table below lists all the subject areas to be evaluated, and whether there is the possibility that the subject matter will become a "major issue" during the course of the proceeding. Additionally, the table indicates if any data requests will be issued on June 24, 2016 as part of Data Requests, Set 1. Keep in mind that because discovery is not yet complete, it is possible that other significant issues will arise. Additional data requests in other technical disciplines may also likely become necessary as the case progresses.

| Major Issue | DRs | Subject Area | Major Issue | DRs | Subject Area |
|-------------|-----|--------------------------------|-------------|-----|---------------------------------|
| No | Yes | Air Quality | No | No | Public Health |
| Yes | No | Alternatives | No | No | Reliability |
| Yes | Yes | Biological Resources | No | Yes | Socioeconomics |
| Yes | Yes | Cultural Resources | Yes | Yes | Soils |
| No | No | Efficiency | No | Yes | Water Resources |
| No | No | Facility Design | No | Yes | Traffic and Transportation |
| No | Yes | Geological Hazards | No | No | Trans. Line Safety & Nuisance |
| No | No | Hazardous Materials Management | Yes | Yes | Transmission System Engineering |
| No | No | Land Use | Yes | No | Visual Resources |
| No | Yes | Noise | No | Yes | Waste Management |
| No | Yes | Paleontological Resources | No | No | Worker Safety/Fire Protection |

ALTERNATIVES

Members of the public and other agencies have submitted comments regarding their concerns about the proposed project. Concerns included the project's location within a 100-year-floodplain, impacts to biological resources, air pollution impacts, especially to poor and minority populations, visual impacts, increased traffic, impacts to aviation safety from the project's structures, and light pollution. To address these concerns, staff will evaluate alternatives to the project, including the no project alternative, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.

BIOLOGICAL RESOURCES

Development of the project's transmission line would include installation of towers in and near riparian habitat as well as coastal sage scrub. The AFC and the Data Adequacy Supplement do not include rare plant survey results because the surveys need to occur during the appropriate blooming season, which for this area and possible species is approximately April through June. In addition to the outstanding rare plant surveys, the United States Fish and Wildlife Service is recommending protocol surveys for least Bell's vireo, which would need to start in April and conclude at the end of July. In their Data Adequacy Supplement, the applicant stated they would conduct these surveys from April through July of 2016. Once all surveys have been completed, staff anticipates receiving the data by late July for the rare plants and late August for the vireo. The project's schedule may be impacted if the applicant is unable to provide the data as proposed.

CULTURAL RESOURCES

The AFC and cultural resources technical report submitted by the applicant identified and assessed impacts to a previously recorded Santa Clara River Valley Rural Historic District (SCRVRHD), a California Register of Historical Resources-eligible rural historic landscape with at least 34 buildings in the Mission Rock Energy Center (Mission Rock) study area. The applicant provided documentation that includes only a fraction of the cultural resources in the SCRVRHD and conducted an inadequate impact analysis for these resources. Staff is preparing data requests that will require significant additional research, survey, and analysis of the SCRVRHD and its contributing elements. Additionally, the applicant stated that portions of the reclaimed water and natural gas pipeline remain unsurveyed for cultural resources as of October 2015 due to the presence of crops.

Specific deliverables requested from the applicant include the following:

1. A Technical Memorandum that clarifies the archeological fieldwork methods used to identify cultural resources in the Mission Rock survey area (Data Request [DR] 1).
2. A Technical Report including additional research and fieldwork with the goal of completing the archeological and built environment survey and documentation of cultural resources in the Mission Rock survey area, including all linear features in the Mission Rock survey area (DR 2, DR 3, DR 4).

3. A Technical Report that includes additional research and fieldwork focused on documenting and evaluating all newly identified cultural resources within the Mission Rock survey area (DR 5).
4. A Technical Report that includes additional research and fieldwork focused on the following significant historical themes associated with the Mission Rock survey area: oil industry, transportation systems, cultural institutions (education/social), and agribusiness (DR 6).

Staff is investigating the contributing elements of the SCRVRHD, the eligibility of these resources, and potential impacts of Mission Rock to these resources and the landscape itself. Staff's requests for additional information from the applicant could take a significant amount of time to complete and may impact the project schedule.

SOILS

The project includes distinct elements that staff has not encountered in previous siting cases. Analysis of potential impacts and compliance with laws, ordinances, regulations and standards (LORS) requires coordination with local, state, and federal agencies that could affect the licensing schedule. The Mission Rock site is located within a special flood hazard area, as designated by the Federal Emergency Management Agency (FEMA). Currently, the official FEMA map shows that roughly one third of the site is exposed to the 1-percent annual chance flood (also referred to as the 100-year floodplain) with the rest of the site exposed to the 0.2-percent annual change flood (also referred to as the 500-year floodplain). FEMA is currently updating the mapping of this area, and their preliminary map shows the entire site within the 1-percent annual chance flood hazard zone. The potential elevation of flood waters at the site is approximately 9 feet higher than the flood elevation currently shown on FEMA's map.

Ventura County LORS specify requirements for developments seeking to build within the FEMA-designated 1-percent annual chance flood area. Although FEMA's preliminary maps are not yet official, the applicant anticipates these changes and proposes to elevate the Mission Rock site during construction using import fill. Elevating the site would remove them from floodplain development requirements, but doing so requires prior approval by FEMA in addition to compliance with Ventura County LORS.

Staff is concerned that building in a floodplain can be complicated, if not risky. Staff may need additional time to evaluate whether the project owner can comply with the local and federal requirement for such development and what mitigation may be required to ensure there is no impact to public health and safety. Staff will work with Ventura County to determine project compliance with the Flood Plain Management Ordinance, and if the placement of significant volumes of fill in the flood plain are acceptable for project development. Staff will also work with FEMA to ensure Mission Rock can meet specific design standards to obtain a Conditional Letter of Map Revision Based on Fill (CLOMR-F). Staff will analyze the project for compliance with FEMA standards, but FEMA has final approval authority when determining flood hazard mapping. Their process could take several months to complete.

TRANSMISSION SYSTEM ENGINEERING

The California ISO Phase I and Phase II Interconnection Studies are not available for staff to review. The Phase I Study is required for staff to determine the potential need for downstream transmission facilities. If the studies show the project would cause any transmission line overloads which might require transmission line reconductoring or other significant downstream upgrades, a general CEQA analysis will be required. The environmental analysis of potential upgrades could cause a delay in the licensing process for the Mission Rock Energy Center. Staff has submitted Data Requests requesting Phase I and Phase II Interconnection Studies.

VISUAL RESOURCES

The proposed project is located within a predominantly agricultural greenbelt in the Santa Clara River Valley between the community of Saticoy and city of Santa Paula. The power plant site adjoins Nature Conservancy-owned portions of the Santa Clara River floodplain. A 6.6-mile 230 kV transmission line would cross the river valley within the Ellsworth Barranca, a relatively intact natural riparian corridor of local scenic significance. The transmission line would cross heavily traveled Highway 126 and ascend ridges of Sulfur Mountain to the north, where it could be prominently visible from some local roads and residences. Staff will review the project in particular for potential effects to the Ellsworth Barranca, and review the project viewshed for potentially sensitive viewers within the river floodplain, on Highway 126, and in the vicinity of the ridgeline portions of the proposed transmission line.

PROCEDURAL ISSUES

Energy Commission staff have begun our analysis of the potential issues identified above, as well as our assessment of other environmental, public health and engineering aspects of the applicant's Mission Rock proposal and its ability to comply with all applicable LORS. The first step in that assessment will begin with the issuance of data requests to the applicant to be filed on June 24, 2016 in a number of technical areas, including air quality, biological resources, cultural resources, geological and paleontological resources, socioeconomics, soils, traffic and transportation, transmission system engineering, waste management and water resources. Over the next few months, staff will hold publicly noticed workshops to address these and other identified issues.

Our initial findings regarding the major issues discussed above, as well as other environmental and engineering findings will be presented in the Preliminary Staff Assessment (PSA), which is expected to be filed in November 2016. After filing the PSA, staff will conduct public workshops to discuss its conclusions, recommendations and proposed conditions of certification. Based on these workshop discussions and other information that may be provided (including PSA Response to Comments), staff will present our conclusions, recommendations and proposed conditions of certification in the Final Staff Assessment (FSA) that is expected to be filed in late-January 2017.

SCHEDULE

Staff has proposed the following schedule for this proceeding. As is always the case, meeting the proposed schedule will depend upon a number of factors, including: the applicant's timely response to staff's data requests; involvement and timely input by other local, state and federal agencies; the submittal of required applications and responses by state and federal agencies; and, other factors not yet known or expected, like project changes.

STAFF'S PROPOSED SCHEDULE – Mission Rock - (15-AFC-02)

| | ACTIVITY | DATE | DAYS |
|---|--|----------|------|
| 1 | AFC filed | 12-30-15 | - |
| 2 | AFC Data Adequacy determination at Commission Business Meeting | 05-17-16 | 0 |
| 3 | Pre-site visit -- staff information exchange site visit (in Santa Paula) | 06-08-16 | 22 |
| 4 | Staff files Issues ID Report | 06-21-16 | 35 |
| 5 | Staff files Data Requests, Round 1 | 06-24-16 | 38 |
| 6 | Site Visit & Informational Hearing (in Santa Paula) | 06-28-16 | 42 |
| 7 | Data Request & Issues Resolution Workshop (in Sacramento) | 07-12-16 | 56 |
| 8 | Applicant files Data Responses (round 1) | 07-25-16 | 69 |
| 9 | Data Response & Issues Resolution Workshop (in Santa Paula) | 08-04-16 | 79 |
| 10 | Staff files Data Requests (round 2) | 09-06-16 | 116 |
| 11 | Data Request & Issues Resolution Workshop (in Santa Paula) | 09-22-16 | 132 |
| 12 | Applicant files Data Responses (round 2) | 10-6-16 | 146 |
| 13 | VAPCD issues Preliminary Determination of Compliance (PDOC) | TBD | TBD |
| 14 | Preliminary Staff Assessment filed | 11-17-16 | 188 |
| 15 | Preliminary Staff Assessment workshop (in Santa Paula) | 12-01-16 | 200 |
| 16 | Public Comments on PSA due date | 12-19-16 | 219 |
| 17 | VAPCD issues Final Determination of Compliance (FDOC) | TBD | TBD |
| 18 | Final Staff Assessment filed | 01-26-16 | 257 |
| 19 | Prehearing Conference* | TBD | TBD |
| 20 | Evidentiary Hearings* | TBD | TBD |
| 21 | Committee files Presiding Member's Proposed Decision* | TBD | TBD |
| 22 | Hearing on the PMPD* | TBD | TBD |
| 23 | Committee files errata to PMPD (if necessary)* | TBD | TBD |
| 24 | Commission issues final Decision* | TBD | TBD |
| *Items 19 thru 24 are scheduled by the Committee | | | |