COGENTRIX QUAIL BRUSH PROJECT CONFERENCE CALL NOTES

DATE: April 4, 2012

SUBJECT: **California Energy Commission Viewshed Analysis and Simulation Conference Call**

ATTENDEES:

California Energy Commission	**Tetra Tech**
Mark Hamblin	Robert Evans

MEETING NOTES:

1. Replication of (model) for the viewshed analysis and request answer the following
    a. Was the ground elevation of the facility site used in the analysis measured in meters? Response: Tetra Tech estimated using bilinear interpolation. At the time of the viewshed analysis, the FFE fluctuated between 465 and 466 feet.
    b. Was the height of the project's tallest structure (the exhaust stacks) measured in meters? Response: OFFSET A varies depending on what proposed structure the point was representing. Tetra Tech ran a reverse viewshed, meaning the viewshed was from stacks out.
    c. Was the default height for an observer 1.5 meters? Response: 0 (none)
    d. Was 10 meter digital elevation model (DEM) data or 3 meter DEM data used in the analysis? Response: Tetra Tech used a 10 meter DEM.
    e. Were any other parameters used in the analysis such as AZIMUTH 1, AZIMUTH 2, VERT 1, VERT 2, RADIUS 1 or RADIUS 2? If yes, what numbers were used? Response: The numbers are as follows AZIMUTH1 = 0; AZMUTH2 = 360; VERT1 = 90; VERT2 = -90; RADIUS1 = 0; RADIUS2 = Infinity.
2. Summary of CEC requests and Cogentrix responses
    a. Mark Hamblin indicates that the current photographic simulation of the proposed Quail Brush facility shown on AFC Figure 4.5-10 shows landscaping elements, specifically trees that appear at maturity (20 to 30 years after facility construction). Mark questioned if the trees and other landscaping elements were based on a conceptual landscaping plan prepared for the proposed project in accordance to the requirements of the City of San Diego Municipal Code, Chapter 14, Article 2: General Development Regulations, Division 4: Landscape Regulations, section 142.0403 General Planting and Irrigation Requirements?
        i. Response: The landscaping elements depicted in the simulation were not based on a conceptual landscaping plan prepared pursuant to SDMC provisions, as no such plan had been prepared at the time the simulation was prepared. The simulation in question was developed in response to a request from the applicant for a simulation that reflected a different stack treatment and landscaping around the plant. That request was in response to feedback from the City of Santee on an initial simulation with dark stacks and no landscaping. Beginning with an assumption that irrigation would not be provided, a small team of project staff performed a quick review of sources (primarily the San Diego street tree list and the Multi-Species HCP plant list) to identify candidate species for use in this situation. The objective was to identify one or more drought-tolerant,

native tree species that are adapted to canyons and slopes, would fit the local landscape, and were tall enough to provide some screening but not too tall. That review resulted in selection of incense cedar and coast live oak as suitable species, to be arranged in a clustered and staggered fashion to be more natural appearing. The project visualization specialist prepared the arrangement of the trees depicted in the simulation, based on the above and security considerations regarding trees near a fence. It is our understanding that a draft landscaping plan is being prepared by a local landscape architecture firm in San Diego.

b. Mark Hamblin indicated that the eleven 100-foot tall exhaust stacks shown in the photographic simulation of the proposed Quail Brush facility (AFC Figure 4.5-10) are proposed to be made of steel and painted or surfaced treated a desert tan color. Mark questions that if the temperatures exiting the exhaust stacks will most likely exceed 700 degrees can paint withstand this temperature. Mark then provided an example of the Humboldt Generating Station which he considers a similar type power generation facility to the proposed Quail Brush Generation Project. The Humboldt Generating Station has ten (10) cor-ten steel vertical cylindrical exhaust stacks, 100 feet above ground level. The exhaust stacks are arranged in two groups of five. Mark then asked if the 11 exhaust stacks for the Quail Brush project be arranged/grouped similar to the Humboldt Generating Station exhaust stacks?
    i. Response: This is more of an engineering question than a visual resource question even though the final design and surface treatments would influence the potential visual impacts of the project. Tetra Tech can ask Cogentrix about this potential but we are unable to provide an answer at this time.

c. Mark Hamblin asked if a request for a use permit or variance to exceed the city's 50-foot height limit requirement included with the other land use entitlement permits (general plan amendment, zoning, etc.) was submitted to the City of San Diego planning department to permit the Quail Brush project's eleven 100-foot tall exhaust stacks, thirteen 70-foot tall transmission line poles, and two 60-foot tall switchyard dead-end structures.
    i. Response: We state in the document that," The Project stacks must be 100 feet in height to meet the dispersion requirements of air quality regulations." However, Tetra Tech understands that Cogentrix has been working with the City of San Diego regarding the height variance. Tetra Tech is unable to fully respond to this question at this time without more information from Cogentrix.

d. Mark Hamblin indicated that he is currently reviewing the City of San Diego Municipal Code, Chapter 14, Article 2: General Development Regulations, Division 1: Grading Regulation, contain policies and regulations to address slope stability and gradient, retaining walls, erosion control, landform preservation and protection. Mark asks about the status of the grading plan.
    i. Response: Robert Evans is unsure of the status of the grading plan but indicates that he is not aware if the base elevation used for the simulations has substantially changed. Robert will look further into the status of the engineering and update Mark as necessary. Mark will continue to review the regulations with his staff.

From: Hamblin, Mark@Energy Sent: Tue 4/3/2012 10:29 AM
To: Robert Evans, Tetra Tech
Cc: Flores, David@Energy; Solorio, Eric@Energy
Subject: Quail Brush Generation Project - Visual Resources Section Questions Regarding Visual Sphere of Influence, Landscaping, Exhaust Stacks & Height Limit (April 3, 2012)

Robert,

I have a few Quail Brush Generation Project visual related questions which I need your help. I'm sending you this email in advance of a formal data request pertaining to visual resources for the proposed Quail Brush Generation Project.

Question 1 – Visual Sphere of Influence. We are attempting to replicate (model) the viewshed analysis used for the "Visual Sphere of Influence" discussed on page 4.5-3 in the AFC Visual Resources section and request your help to answer the following questions:

1. SPOT – Was the ground elevation of the facility site used in the analysis measured in meters?
2. OFFSET A – Was the height of the project's tallest structure (the exhaust stacks) measured in meters?
3. OFFSET B – Was the default height for an observer 1.5 meters?
4. Was 10 meter digital elevation model (DEM) data or 3 meter DEM data used in the analysis?
5. Were any other parameters used in the analysis such as AZIMUTH 1, AZIMUTH 2, VERT 1, VERT 2, RADIUS 1 or RADIUS 2? If yes, what numbers were used?

Question 2 – Landscaping. The photographic simulation of the proposed Quail Brush facility shown on AFC Figure 4.5-10 shows landscaping elements, specifically trees that appear at maturity (20 to 30 years after facility construction).

Were the trees and other landscaping elements based on a conceptual landscaping plan prepared for the proposed project in accordance to the requirements of the City of San Diego Municipal Code, Chapter 14, Article 2: General Development Regulations, Division 4: Landscape Regulations, section 142.0403 General Planting and Irrigation Requirements?

If yes, please provide a copy of the proposed project's conceptual landscape plan that was used to prepare the photographic simulation. I need to review it with our biologist and the City of San Diego planning staff for compliance with the city's municipal code pertaining to landscape regulations and brush management for fire suppression, and biological concerns pertaining to the city's multiple species habitat conservation plan.

If the trees in the photographic simulation were not based on a conceptual landscape plan, the trees and other landscape elements should be removed from the simulation. An additional photographic simulation showing trees, and stating their year of growth after the project's completion may be provided.

Question 3 – Exhaust Stacks. The eleven 100-foot tall exhaust stacks shown in the photographic simulation of the proposed Quail Brush facility (AFC Figure 4.5-10) are proposed to be made of steel and painted or surfaced treated a desert tan color. The temperatures exiting the exhaust stacks will most likely exceed 700 degrees.

The Humboldt Generating Station is a similar type power generation facility to the proposed Quail Brush Generation Project. The Humboldt Generating Station has ten (10) natural gas-fired reciprocating Wartsila engine generators and has ten (10) cor-ten steel vertical cylindrical exhaust stacks, 100 feet above ground level. The exhaust stacks are arranged in two groups of five. See attached photographs of the Humboldt Generating Station showing the cor-ten steel stacks.

Could the 11 exhaust stacks for the Quail Brush project be arranged/grouped similar to the Humboldt Generating Station exhaust stacks?

Similar to the Humboldt power project, would not cor-ten steel exhaust stacks be needed due to the high heat temperature of the exhaust exiting the proposed Quail Brush project? If yes, please provide a photographic simulation showing cor-ten steel stacks.

Question 4 – City Height Limit for Exhaust Stacks & Transmission Line Structures. The City of San Diego's Mission Trails Design District Ordinance and Design Manual (adopted September 23, 2003), Design Manual, ALL SUBAREAS, E. states "No structure shall exceed four stories or 50 feet in height, including screening of mechanical equipment."

Was a request for a use permit or variance to exceed the city's 50-foot height limit requirement included with the other land use entitlement permits (general plan amendment, zoning, etc.) submitted to the City of San Diego planning department to permit the Quail Brush project's eleven 100-foot tall exhaust stacks, thirteen 70-foot tall transmission line poles, and two 60-foot tall switchyard dead-end structures.

Comment – Grading/Hillside Slope Cut. The City of San Diego's Mission Trails Design District Ordinance and Design Manual, Design Manual, SUB AREA 2 – Hillside Areas, and City of San Diego Municipal Code, Chapter 14, Article 2: General Development Regulations, Division 1: Grading Regulation, contain policies and regulations to address slope stability and gradient, retaining walls, erosion control, landform preservation and protection and may cause greater view exposure of the facility. I and other staff are reviewing these regulations and requirements.

Mark R. Hamblin, M.P.A.
Planner II
Environmental Protection Office
Siting, Transmission, Environmental Protection Division
California Energy Commission
1516 9th Street, MS 40
Sacramento, CA 95814-5504
Ph: (916) 654-5107
Fax: (916) 651-8868
Email: mhamblin@energy.state.ca.us
California Energy Commission website: http://www.energy.ca.gov/


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1/2 MILE
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