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State Of California

The Resources Agency of California

Memorandum

Date:June 11, 2018Telephone:(916) 651-0966

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

From: California Energy Commission – Leonidas Payne 1516 Ninth Street Project Manager Sacramento, CA 95814-5512

Subject: Data clarification questions and responses for the McLaren Backup Generation Facility SPPE application review—Supplement for Geo/Paleo and Noise

In the course of Staff's review of the McLaren Backup Generation Facility Small Power Plant Exemption (SPPE) application and revised application [17-SPPE-01], Staff requested clarification of issues related to building foundations and foundation support. Those questions and responses are attached for referencing purposes.

Attachment: Data clarifications for Geo/Paleo and Noise

Geo/Paleo and Noise:

First set of questions

I have a few quick questions related to paleontology and geology concerning the design of the McLaren Data Center the follow-up on general design information that was included with the material submitted to the Energy Commission. Hopefully you can provide some additional information. I am not looking for detailed design information, just sufficient design information to address the impacts (if any) to soils beneath the site.

- What will be the maximum depth and extent of excavation for the building foundations?
- What will be the maximum depth and extent of excavation for the generator foundations?
- What type of foundation support (if any) will be required for the buildings/generators (spread footings, piles, soil improvement, etc.)?
- Will piles be required to support the building foundations?
- What value of Peak Ground Acceleration will be used for the seismic design of the buildings and generators?

Responses:

- What will be the maximum depth and extent of excavation for the building foundations? The MDC building will be supported on drive piles which may extend to a depth of 180 feet.
- What will be the maximum depth and extent of excavation for the generator foundations? The generators will be placed on a concrete slab on grade.
- What type of foundation support (if any) will be required for the buildings/generators (spread footings, piles, soil improvement, etc.)? See above
- Will piles be required to support the building foundations? Yes. They are anticipated to be driven up to 180 feet in depth.
- What value of Peak Ground Acceleration will be used for the seismic design of the buildings and generators? The final design for the building has not been completed so Vantage does not yet have this information.

Clarification request

I am trying to clarify the construction method for the piles proposed as foundation support at McLaren. In your project description all the references to piles as a foundation support method indicate they will be "drive piles".

However, in the 2017 Initial Study done by the City of Santa Clara all references to foundation piles are for "auger cast displacement piles". Also, in footnote #34 in section 4.5.2.4 (pages 60 and 61) of the 2017 Initial Study it states that in the Murray Engineers 2016 Geotechnical Investigation Report various foundation options were discussed and the project applicant determined that "a deep pile system consisting of driven, precast, prestressed concrete piles is not feasible for the project site."

Data clarifications for Geo/Paleo and Noise

Since pile driving can constitute a noise issue, we would like to clarify, will the piles at the site will be "driven" or "cast in place"?

Response: The answer to the question about the foundations for the MDC is that there will be no driven piles. They will be auger cast-in place displacement piles as was fully evaluated by the City in its MND.