CALENDAR ITEM
C79

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PRC 7621.0
RA# 08907
S 37 | D. Dudak

CONSIDER APPROVAL OF THE AMENDMENT OF STATE GEOTHERMAL RESOURCES LEASE NO. PRC 7621.0 TO WAIVE AND RELINQUISH THE STATE'S RIGHT OF PARTIAL TERMINATION FOR LESSEE'S FAILURE TO MEET A CONSTRUCTION DEADLINE, AND TO INCREASE THE ANNUAL RENTAL, SALTON SEA GEOTHERMAL FIELD, IMPERIAL COUNTY

LESSEE:

Magma Power Company
Attn.: Mr. Vincent J. Signorotti
551 West Main Street, Suite 1
Brawley, CA 92227

AREA, LAND TYPE, AND LOCATION:

Approximately 615 gross acres of State land owned by the California Department of Fish and Game and situated within the Hazard Unit of the Imperial Wildlife Management Area on the southeastern shore of the Salton Sea, as depicted on Exhibit A, attached hereto.

BACKGROUND:

State Geothermal Resources Lease No. PRC 7621.0 (Lease) was issued to Magma Power Company (Lessee) in 1992 with a ten-year primary term. The Lease was issued pursuant to the provisions of Public Resources Code sections 6919 and 6924. Section 6919 allows the Commission to issue geothermal leases through negotiation rather than competitive bidding when certain conditions exist. Section 6924 allows the Commission to issue geothermal permits or leases on State-owned lands where the surface is under the jurisdiction of another department or agency, but only with the consent of and subject to reasonable terms and conditions prescribed by that other department or agency.

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As originally issued, the Lease included 80 acres of land owned by the California Department of Fish and Game (CDFG). The State owns a fifty percent (50%) interest in the mineral resources, with the Lessee owning the remaining fifty percent (50%) interest. The 80-acre parcel is known as the "Campbell Property." In 2001, the Lease was amended, and a new ten-year primary term was established. The main reason for amending the Lease was to incorporate an additional 535 gross acres of land also owned by the CDFG. The added lands are referred to as the "Hazard Tract." The State's mineral interest in the Hazard Tract equates to 443 net mineral acres.

The combined 615 leased acres in the Campbell Property and the Hazard Tract are part of the "Hazard Unit" of the Imperial Wildlife Management Area, which is administered by the U.S. Fish and Wildlife Service and used as a refuge and breeding area for migratory birds and other wildlife. The Lease prohibits any surface occupancy, and all development must be accomplished through directional drilling from adjacent property controlled by the Lessee.

The Lessee is a wholly-owned subsidiary of CalEnergy Operating Corporation (CalEnergy), which is part of MidAmerican Energy Holdings Company. CalEnergy owns and operates ten power plants that use geothermal resources to generate more than 340 megawatts of electricity at the Salton Sea Geothermal Field.

LEASE DEVELOPMENT STATUS:

The Campbell Property portion of the Lease has been productive since the Lease was issued in 1992. The State has received more than $817,000 in cumulative royalty since then, and currently receives approximately $35,000 in royalty per year. As provided by Public Resources Code section 6924, fifty percent (50%) of the annual revenue is available for appropriation by the Legislature for programs administered by the CDFG.

The Hazard Tract portion of the Lease, added in 2001, is not yet productive. An annual rental payment of $11,075 is required until production is established. In lieu of a specific drilling term or development requirement relative to the Hazard Tract, the Lease provides the State with a right of termination if either of two development-related conditions is not met. The first condition required the Lessee to construct by May 1, 2006, the foundation for a new power generating facility that would eventually use geothermal resources from the Hazard Tract. The second condition is that by May 1, 2011, the Lessee must complete construction of that facility, obtain all necessary permits for its operation and

commence the sale of electricity from it.

CONSTRUCTION DEADLINE NOT MET:

The Lessee failed to meet the May 1, 2006, construction deadline specified in the Lease and has requested that the State waive and relinquish the right of termination provision associated with that deadline. In exchange, the Lessee has agreed to an increase in the annual rent applicable to the Hazard Tract portion.

The Lessee originally planned to develop the Hazard Tract and surrounding lands after it had developed another part of the Salton Sea field. From 2001 through 2005, the Lessee spent significant time and money on another project, a proposed generating facility to be called "Unit 6." At 215 megawatts, Unit 6 would have been the largest single geothermal plant in the world. The Lessee signed a power sales agreement and, after a lengthy environmental review process, obtained a license from the California Energy Commission for the construction and operation of the plant.

The lengthy permitting process for Unit 6 pushed back the Lessee's plans for a plant that would include the Hazard Tract. It also proved detrimental to the economics of Unit 6 itself because material and labor costs had increased significantly during that time. The Lessee has advised staff that the estimated cost to build Unit 6 and drill its wells increased from $400 million in 2001 to $830 million in 2005. The absence of a sufficiently long federal production tax credit for geothermal energy was also detrimental to the economics. Even after renegotiating the power sales agreement, the Lessee determined the project would be uneconomic, and the decision was made to abandon plans for Unit 6. As a result, the foundation for a new generating facility that would use resources from the Hazard Tract was not constructed.

The Lessee now intends to pursue a new development strategy at the Salton Sea field. Rather than attempting large, complex projects like Unit 6, the Lessee will focus its efforts on smaller plants that can be permitted and built more quickly, and that can use a simpler, less-costly utilization technology. The Lessee now believes it can have the Hazard Tract portion of the Lease producing before the primary term ends in 2011.

Economic issues have always been a problem affecting geothermal development at the Salton Sea field. The nature of the resource requires specialized equipment and technology. The produced fluid is high temperature brine that must be processed in flash tanks and pressure separators lined with special alloy

metal. Wells must be lined with titanium casing because normal carbon steel casing would corrode too rapidly. Surface pipelines must be internally coated with cement, and they require additional pump capacity. Spent brine must be treated to remove solids or hold them in solution prior to being injected back into the reservoir. Otherwise, the injected brine would plug the injection lines and wells. And for every production well, there must be an injection well. As a result, geothermal facilities at the Salton Sea field are significantly more expensive to construct and operate than at other fields.

OUTLOOK FOR FUTURE DEVELOPMENT:

Despite the higher costs at the Salton Sea field, the outlook for future development is very good. At 340 megawatts, the field is already the largest geothermal development in the Imperial Valley and the second largest in California. Geophysical and other evidence suggests the ultimate potential of the field could exceed 2,000 megawatts. A large part of that potential underlies the Salton Sea itself. Potential sites for new wells and power plants will increase as the Salton Sea continues to recede. Several years ago, the western edge of the Lease had been adjacent to the shoreline, limiting development options. The shoreline has migrated more than a mile to the west, allowing for the possible expansion of geothermal development.

The demand for renewable energy generation in California continues to grow. This is particularly true for geothermal, which is available 24 hours a day as baseload power that utilities can dispatch or curtail if necessary. Renewable generation has been a high priority issue with California's past and current administrations. In 2002, the Legislature passed the Renewable Portfolio Standard, which requires that 20 percent (20%) of the State's electricity be derived from renewable resources by 2017. More recent goals have called for 20 percent (20%) by 2010 and 33 percent (33%) by 2020. In 2006, legislation was passed requiring a 25 percent (25%) reduction in greenhouse gases by 2020 and establishing greenhouse gas emission standards for baseload generation to discourage coal-fired generation in favor of clean renewables such as geothermal. The U.S. Congress is expected to revise the timeframe for the production tax credit to accommodate the long lead times for permitting, financing and constructing geothermal facilities. Finally, to address another long-standing impediment to geothermal development in the Imperial Valley, Southern California Edison and the Imperial Irrigation District have proposed new transmission lines to get more renewable generation to the State's electrical grid.

AMENDMENT TERMS:

Paragraph 3(b)(1) of the Lease will be deleted in its entirety. That paragraph provided that the State may terminate the Lease with respect to the Hazard Tract if the Lessee has not completed construction of a foundation for a new power plant by May 1, 2006. Eliminating this right of termination will not affect the ten-year primary term. Therefore, the State retains the right to terminate the Lease as to any portion of the Hazard Tract that is not producing by May 1, 2011.

Paragraph 6(e) of the Lease will be modified to increase the annual rental specified for the Hazard Tract. The rental amount will be increased from twenty-five dollars ($25.00) to fifty dollars ($50.00), for each net acre or fraction of a net acre, retroactive to May 1, 2006. The Lessee has submitted a check to the State for the retroactive rental increase for lease years 2006-2007 and 2007-2008. The annual rental will increase to seventy-five dollars ($75.00) per net acre effective May 1, 2008, one hundred dollars ($100.00) per net acre effective May 1, 2009, and one hundred and twenty-five dollars ($125.00) per net acre effective May 1, 2010. As already provided in Paragraph 6(e), the annual rental will be reduced to two dollars ($2.00) per net acre for any portion of the Hazard Tract from which the State begins receiving a royalty from the production of geothermal resources.

All other terms and conditions of the Lease will remain unchanged.

CONSENT OF DEPARTMENT OF FISH AND GAME:

Public Resources Code section 6924 provides that where the surface of State-owned lands is under the jurisdiction of another State agency, leases may be issued by the Commission only with the consent of and subject to reasonable terms and conditions as may be prescribed by that other agency. Commission staff worked with staff of the CDFG in 1992, when the Lease was issued, and in 2001, when it was amended, to ensure that the Lease provided adequate protection to the wildlife management activities associated with the Hazard Unit. Similarly, Commission staff has discussed the terms of this amendment with staff of the CDFG and has obtained its consent to the proposed amendment.

STATUTORY AND OTHER REFERENCES:

A. Public Resources Code, Division 6, Parts 1 and 2: Division 13.
B. California Code of Regulations, Title 2, Division 3; Title 14.

OTHER PERTINENT INFORMATION:

1. Pursuant to the Commission's delegation of authority and the State CEQA

Guidelines [Title 14, California Code of Regulations, section 15060(c)(3)], the staff has determined that this activity is not subject to the provisions of the CEQA because it is not a "project" as defined by the CEQA and the State CEQA Guidelines.

Authority: Public Resources Code section 21065 and Title 14, California Code of Regulations, sections 15060 (c)(3) and 15378.

2. This activity involves lands which have NOT been identified as possessing significant environmental values pursuant to Public Resources Code sections 6370, et seq. However, the Commission has declared that all tide and submerged lands are "significant" by nature of their public ownership (as opposed to "environmentally significant"). Since such declaration of significance is not based upon the requirements and criteria of Public Resources Code sections 6370, et seq., use classifications for such lands have not been designated. Therefore, the finding of the project's consistency with the use classification as required by Title 2, California Code of Regulations, section 2954 is not applicable.

EXHIBIT:

A. Location Map

PERMIT STREAMLINING ACT DEADLINE:

N/A (not a "development project" subject to the Act)

RECOMMENDED ACTION:

IT IS RECOMMENDED THAT THE COMMISSION:

CEQA FINDING:

1. FIND THAT THE ACTIVITY IS EXEMPT FROM THE REQUIREMENTS OF THE CEQA PURSUANT TO TITLE 14, CALIFORNIA CODE OF REGULATIONS, SECTION 15060(c)(3) BECAUSE THE ACTIVITY IS NOT A PROJECT AS DEFINED BY PUBLIC RESOURCES CODE SECTION 21065 AND TITLE 14, CALIFORNIA CODE OF REGULATIONS, SECTION 15378.

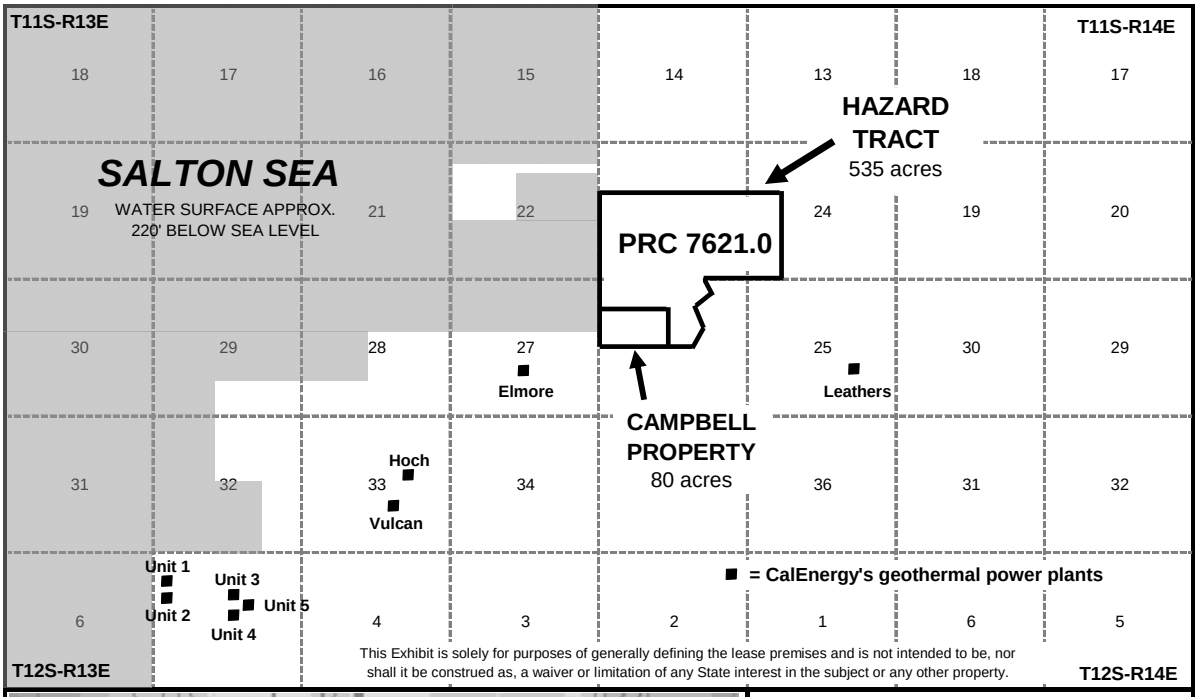
AUTHORIZATION:

1. AUTHORIZE THE AMENDMENT OF STATE GEOTHERMAL

RESOURCES LEASE NO. PRC 7621.0 UPON THE TERMS AND CONDITIONS OUTLINED IN THIS CALENDAR ITEM AND IN FORM ON FILE IN THE OFFICES OF THE COMMISSION, THE AMENDMENT TO PROVIDE FOR: 1) THE WAIVER AND RELINQUISHMENT OF THE STATE'S RIGHT OF TERMINATION OF THE LEASE AS PERTAINS TO THE HAZARD TRACT FOR LESSEE'S FAILURE TO MEET THE MAY 1, 2006, CONSTRUCTION DEADLINE; AND 2) AN INCREASE IN THE ANNUAL RENTAL RETROACTIVE TO MAY 1, 2006, WITH ADDITIONAL INCREASES IN FUTURE YEARS UNTIL PRODUCTION IS ESTABLISHED.

2. AUTHORIZE THE EXECUTIVE OFFICER OR HIS DESIGNEE TO EXECUTE ANY DOCUMENTS NECESSARY TO IMPLEMENT THE COMMISSION'S ACTION.

EXHIBIT A



LOCATION MAP

STATE GEOTHERMAL RESOURCES LEASE

PRC 7621.0

Salton Sea Field

IMPERIAL COUNTY