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*FAST TRACK PROCESSING REQUESTED

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

La Paloma Generating Company, LLC

٧.

Docket No. EL16-___-000

California Independent System Operator Corporation

COMPLAINT OF LA PALOMA GENERATING COMPANY, LLC REQUESTING FAST TRACK PROCESSING, SHORTENED TIME PERIOD, AND WAIVERS

Pursuant to Sections 206 and 309 of the Federal Power Act ("FPA")¹ and Rule 206 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("Commission"),² La Paloma Generating Company, LLC ("La Paloma") hereby files this complaint ("Complaint") requesting **fast track processing** against the California Independent System Operator Corporation ("CAISO"). As will be explained further herein, time is of the essence.

CAISO last week disapproved outage requests submitted by three units at the four unit La Paloma facility, and this week disapproved a previously-approved maintenance outage request of a fourth unit. At the same time, CAISO has failed to provide the units with a means of appropriate cost recovery for maintaining their operations, such as a Reliability Must Run ("RMR") designation. A regulatory taking would be effectuated were the Commission to permit this situation to persist.

¹ 16 U.S.C. §§ 824e, 825h (2012).

² 18 C.F.R. § 385.206 (2015).

La Paloma accordingly respectfully requests that the Commission direct CAISO to negotiate an annual RMR or other similar annual contract to provide La Paloma with just and reasonable compensation for the units' continued operation in light of the denial of its outage requests. In light of the urgency of this situation, fast track processing with comments due by June 30, 2016³ and an order from the Commission by July 29, 2016 requiring CAISO to grant La Paloma an annual RMR designation for the uncommitted capacity from the facility effective as of July 1, 2016 or otherwise provide a mechanism for appropriate cost recovery on an expedited basis are appropriate and necessary for La Paloma to continue operations in consideration of the denial of its outage requests.

I. COMMUNICATIONS

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³ The comment period for a Complaint seeking fast track processing "may be shortened by the Commission from the time provided in section 385.206(f)." 18 C.F.R. § 385.206(h)(3).

II. DESCRIPTION OF COMPLAINANT

La Paloma owns a 965.4 MW (summer rating) four-unit⁴ combined-cycle natural gas-fired generating facility located in McKittrick, California (the "La Paloma Facility"). The La Paloma Facility achieved commercial operation in 2003.⁵ It receives gas directly from the Kern River Gas Transmission System pipeline and the Mojave pipeline.⁶

La Paloma is directly interconnected to Pacific Gas & Electric's ("PG&E") Midway Substation.⁷ The Midway Substation is the northern entry point to Path 26, which forms the interface between northern California and southern California. This path connects the PG&E and Southern California Edison territories. Midway Area generation resides right between Path 15 and Path 26 and enables high flows on Path 26.⁸

The La Paloma Facility employs a turbine technology that allows it to have a very favorable heat rate and low carbon intensity.⁹ In addition, the La Paloma Facility can be modified to reduce its Pmin heat rate with minor modification that can be accomplished during a short outage.¹⁰ This feature is relatively unique to this facility and can offer important benefits in the face of growing renewable

 $^{^4}$ The summer capacity of each unit is as follows: 243.7 (Unit 1), 241.6 (Unit 2), 237.4 (Unit 3), and 242.7 (Unit 4).

⁵ Affidavit of James Maiz at P 2, attached hereto as Exhibit A ("Maiz Affidavit").

⁶ *Id.* at P 3.

⁷ *Id.* at P 2.

⁸ A map depicting this area is provided as Exhibit B.

⁹ Maiz Affidavit at P 4.

¹⁰ *Id.*

generation and the need for flexible turndown. This additional turndown translates into reduced fuel consumption, lower greenhouse gas emissions, and dramatically lower water consumption.¹¹ The combination of the location of the La Paloma Facility, and the technology it employs, offers unique benefits to CAISO.

III. INTRODUCTION

The Commission and CAISO representatives alike have recognized in various contexts that insufficient price support is being provided by the CAISO markets for certain new and existing units. When generation facilities are old, expensive, inefficient, and unnecessary, market signals that precipitate retirement are the product of a well-functioning market. This, however, is not La Paloma's story. La Paloma is a highly-efficient, recent vintage facility, with desirable environmental characteristics that is optimally located at a substation where it can assist with maximizing power flows over a key path connecting northern and southern California. While highly dispatched for energy in the past, in the wake of the limited operability of the Aliso Canyon storage facility, and CAISO's needs to support the path to which La Paloma is connected, La Paloma's ability to improve reliability has only increased. La Paloma sees CAISO's disapproval today of a previously approved maintenance outage at unit 2, as well as CAISO's disapproval last week of the other three units' outage requests, as emblematic of CAISO's reliance on the La Paloma units. Importantly, the facility is not dependent on gas supply from the Aliso Canyon facility. While La Paloma understands that RMR designations must be granted judiciously, the RMR designation exists precisely so that it can be employed in appropriate circumstances. La Paloma respectfully asserts that this is such a case.

La Paloma has discussed its struggles with state and federal regulators in advance of filing this Complaint, and has shared its third party assessment of the CAISO's need for the facility in those discussions. While those conversations have been ongoing, its financial distress has increased. La Paloma believes, and has been advised by independent third party experts, that its facility is an important contributor to the reliability of the CAISO market and is one the CAISO would be well-served to keep in operation both today and in coming years. However, because market compensation has been, and is contemplated to continue in the near term to be, insufficient to justify those continued operations, La Paloma recently was placed in the regrettable position of determining that submitting short term outage tickets for three of its units was an appropriate step to stem the tide of financial losses it is experiencing. CAISO disapproved those outage tickets. It also disapproved an earlier approved maintenance outage for a fourth unit. By this Complaint, La Paloma asks the Commission to approve a solution that will allow the facility to maintain reliable operations while obtaining just and reasonable compensation sufficient to support the units subject to this Complaint through an annual RMR designation or similar contract.

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IV. BACKGROUND

A. The CAISO Market is Providing Insufficient Revenue to La Paloma to Justify Continued Operations, but Several of its Outage Requests Have Been Rejected, Indicating a Need for the Facility

Despite being regularly dispatched by the CAISO for energy, La Paloma has seen a substantial decline in its merchant market revenues and minimal sales of resource adequacy ("RA").¹² Absent some change in compensation, La Paloma has determined that continued economic operation of its units is not justified, at least in the short to medium term, given the non-compensatory market revenues the plant has received and expects to receive during this time frame.¹³ Representatives of La Paloma have been discussing these market signals and their likely effect on continued operations of the facility absent contractual or other relief with representatives of the CAISO and other California state agencies on various occasions since 2014.¹⁴

While there has been some level of sympathy expressed regarding to La Paloma's plight, the emergence of any viable solution to the economic hardship experienced at the facility has been elusive. Instead, while these discussions have been ongoing, La Paloma's economic situation has continued to deteriorate.¹⁵

CAISO's 2015 Annual Report on Market Issues & Performance acknowledged the need for cost recovery as to both existing and new units that

¹⁵ *Id.* at P 10.

¹² *Id.* at P 5.

¹³ *Id.* at P 7.

¹⁴ *Id.* at P 9.

are needed for reliability.¹⁶ For a combined cycle unit, which is the La Paloma generator type, CAISO assumed a total fixed cost revenue requirement for a new unit of \$165.2/kW-yr., but concluded its net revenue estimates for NP15 (north of Path 15) and SP15 (south of Path 15) "fall substantially below" that amount.¹⁷ Indeed, its 2015 net revenue analysis showed NP15 net revenue of only \$39.62/kW-yr. and SP15 revenue of only \$45.77/kW-yr.¹⁸

Although La Paloma is not a new facility, but is an existing thirteen year old facility, it too is experiencing a substantial shortfall in revenues required to support its operations.¹⁹ CAISO suggests in its report that long term bilateral contracting is the answer to "cover the gap" between the annualized capital cost and spot market revenues, and indeed indicated this would be the primary means new generation investment would occur in light of the admittedly insufficient market compensation opportunities.²⁰ La Paloma would welcome a long term bilateral contract that would cover the gap it is experiencing between its costs and market revenues. Opportunities for these contracts, however, unfortunately seem to be the province of new, rather than existing, generators. In this complaint, La Paloma seeks an inferior stop gap solution of an annual RMR or similar annual contract to provide revenues sufficient to warrant the Facility's

¹⁶ Relevant excerpts from Section 1.3 are provided at Exhibit C hereto and the 2015 full report is available at <u>http://www.caiso.com/Documents/2015AnnualReportonMarket</u> <u>IssuesandPerformance.pdf ("CAISO 2015 Annual Report")</u>.

¹⁷ *Id.* at p. 53.

¹⁸ *Id.* at Table 1.8.

¹⁹ Maiz Affidavit at P 5.

²⁰ CAISO 2015 Annual Report at p. 56.

continued operation.²¹ This is not to say that the Commission, CAISO and others should not in earnest pursue market reforms in order for a more durable and comprehensive solution to provide just and reasonable rates to be implemented. But. La Paloma needs relief through an annual contract now.²²

Given the interest in reducing its economic losses to the maximum extent possible, and because its ongoing efforts to sell RA have not led to compensatory sales agreements,²³ La Paloma recently submitted short term outage tickets to CAISO via its online Outage Management System ("OMS") for units 1, 3 and 4.²⁴ La Paloma stated that it was requesting outages for these units beginning July 1, 2016 through November 30, 2016 due to "economic

²¹ Alternatives to an RMR agreement include an appropriate bilateral contract with one of the state's Load Serving Entities. CAISO also maintains a Capacity Procurement Mechanism ("CPM") designation. See CAISO Tariff at Sections 43 and 43A; *California Independent System Operator Corporation*, 155 FERC ¶ 61,215 (2016) (granting temporary suspension of the effectiveness of new CPM provisions in Section 43A of the CAISO Tariff until November 1, 2016 and directing CAISO to make a compliance filing to revise Section 43 to indicate that it applies to all CPM designations made before November 1, 2016).

²² La Paloma needs to recover its costs on an annualized basis and does not believe that shorter term contracts are viable to provide the price support needed to maintain facility operations. It is possible that CAISO may argue that it relies on the units more in some months than others, but an on again, off again revenue stream does not equate with the just and reasonable compensation that La Paloma requires.

²³ La Paloma optimally would have provided a longer notice period before pursuing the unit outages. However, CAISO's markets differ markedly from the bulk of Regional Transmission Organizations that have auctions one to three years in advance of the delivery year that provide generators with needed certainty as to whether their units are needed and can economically operate going forward. Instead, in California, *ad hoc* solicitations are conducted throughout the year by the investor owned utilities to meet monthly requirements. Thus, La Paloma did not itself have the benefit of advance notice that its units would not have sufficient commitments to warrant operation over the time period covered by the outage requests. Maiz Affidavit at P 10. La Paloma acted promptly in light of the market construct that does exist.

²⁴ Screenshots of La Paloma's online outage requests are attached hereto as Exhibit D. Unit 4 is currently in an outage that began on March 1, 2016 and will end on June 30, 2016. *See id.*

problems," and explained that the outages were necessary because "No RA [had been] procured from the unit[s], and operation [was] expected to be uneconomic with Path 26 internal transfer reservations and online constraints."²⁵ On June 6, 2016, CAISO disapproved La Paloma's requested outages via the OMS.²⁶ In discussions with CAISO representatives, La Paloma was advised that CAISO does not have a procedure for entertaining economic outages as opposed to maintenance outages, and that to obtain a maintenance outage maintenance would need to be underway throughout the period. Thus, CAISO has offered no means for La Paloma to take the requested outages. This forms the basis for its regulatory taking claim.

On June 17, 2016 CAISO followed up these three outage disapprovals with the disapproval of a previously approved maintenance outage for La Paloma unit 2.²⁷ Because CAISO clearly does approve maintenance outages, this latest disapproval is indicative of CAISO's need for the units at the La Paloma facility despite the reasoning provided relating to the previous three units' outage request. It appears the facility is making an important contribution to CAISO's operations despite CAISO's stance in discussions with La Paloma.

Even before the recent outage ticket denials, based upon privately commissioned studies, and given its key location at the Midway station, high level of reliability and flexibility, and the frequency and level by which it is dispatched

²⁵ Id.

²⁶ A screenshot of CAISO's denial of La Paloma's online outage requests are attached hereto as Exhibit E.

²⁷ A screenshot of CAISO's denial of La Paloma's previously-scheduled maintenance outage for unit 2 is attached hereto as Exhibit F.

by CAISO, La Paloma believed that its units are critically important to CAISO.²⁸ The emergence of the Aliso Canyon situation and La Paloma's access to non-Aliso Canyon gas supplies has strengthened that view. In its discussions with La Paloma that have occurred to date, CAISO has not conceded a need for the La Paloma facility. However, the CAISO's recent denial of outage tickets for every one of the units at the Facility indicates to La Paloma that CAISO requires and desires the units' continued operations.

B. The Commission Already Has Found the CAISO Market Must, But Fails To, Provide Appropriate Financial Incentives to Generators Whose Output is Needed

In late 2012, CAISO filed revisions to its tariff to implement a Flexible and Local Reliability Resource Retention ("FLRR") mechanism to offer financial support to resources that are uneconomic or at risk of retirement, but are determined by CAISO to be necessary for flexible capacity and local reliability in the next two-to-five year forward period.²⁹ In response, numerous parties urged the Commission to reject CAISO's proposal, arguing that the need for the FLRR mechanism was a symptom of more fundamental structural market problems that would not be fixed by the FLRR mechanism.³⁰

²⁸ Maiz Affidavit at P 8.

²⁹ California Independent System Operator Corporation, Docket No. ER13-550-000, Flexible Capacity and Local Reliability Resource Retention Proposal (filed December 12, 2012).

³⁰ *Id.* at P 20; *see id.* ("Calpine and NRG highlight that the problem facing California's energy markets is that generation resources cannot earn an acceptable rate of return from energy and ancillary service markets and the [California Public Utilities Commission] resource adequacy program.").

The Commission rejected CAISO's proposed tariff revisions,³¹ finding that they did not create price signals that would inform forward procurement and failed to address the underlying need to ensure the presence of financial incentives for resources to enter and remain in the market.³² The Commission also expressed skepticism regarding whether an interim measure, such as the FLRR mechanism, could accomplish CAISO's goal of ensuring the availability of needed resources, given the existing state of the CAISO market: "CAISO fails to explain how, without more comprehensive market reforms, sufficient compensation opportunities will arise for FLRR-designated resources to continue operating without additional years of FLRR payments. If market conditions do not change, and the FLRR resource is unable to secure additional sources of revenue, it is free to retire without penalty after the end of the designation year."³³

The Commission determined that CAISO's FLRR proposal was so flawed that any further efforts to refine the details of the proposal would not yield a just and reasonable result.³⁴ Instead, the Commission urged CAISO and its stakeholders to focus on the development of a durable, market-based mechanism that provides incentives to ensure that resources with the adequacy and operational needs CAISO requires are available to meet system demands.³⁵ To that end, and in furtherance of its statutory duty to ensure reliability, the

³⁵ Id.

³¹ California Independent System Operator Corporation, 142 FERC ¶ 61,248 (2013).

³² *Id.* at P 64.

³³ *Id.* at P 65.

³⁴ *Id.* at P 68.

Commission directed its staff to convene a technical conference to coordinate with the California Public Utilities Commission ("CPUC"), CAISO, and industry participants on resolving the reliability issues laid out in CAISO's FLRR proposal.³⁶ The technical conference was held on July 31, 2013 and August 1, 2013.³⁷

Since that time, no such durable, market-based mechanism providing needed resources the incentives to remain in the market has been developed. RMR remains a Commission-approved stopgap method until such a mechanism can be proposed, approved and implemented.

C. Aliso Canyon's Effect on Certain Gas-Fired Generators' Gas Supplies

As CAISO has explained, Aliso Canyon is the largest natural gas storage field that serves the southern California region.³⁸ A natural gas leak was discovered at Aliso Canyon in October 2015, that has since been sealed, but operations at the facility remain limited at this time and for the foreseeable future as regulatory approvals are pending.³⁹ CAISO has represented that the restricted operations at Aliso Canyon pose a very serious situation. It has gone

³⁶ *Id.* at P 69.

³⁷ Flexible and Local Resources Needed for Reliability in California Wholesale Electric *Market*, Docket No. AD13-5-000, Notice of Staff Technical Conference (issued May 28, 2013) ("The technical conference is intended to facilitate a structured dialogue on flexible and local resources at risk of retirement for CAISO and its stakeholders to focus on the development of a market-based mechanism to provide incentives to ensure that the reliability needs are met.").

³⁸ See California Independent System Operator Corporation, Docket No. ER16-1649-000, Tariff Amendment to Enhance Gas-Electric Coordination to Address Risks Posed by Limited Operability of Aliso Canyon Natural Gas Storage Facility at 2 (filed May 9, 2016) ("CAISO Aliso Canyon Tariff Amendment Filing").

so far as to represent to this Commission that if gas-fired generators are unable to obtain sufficient fuel supplies to generate electricity at levels needed, CAISO may be forced to curtail electric service to southern California customers.⁴⁰

In light of the Aliso Canyon short-term transitory event,⁴¹ CAISO has sought and obtained Commission approval to take actions such as applying constraints to the amount of flow on Path 26 in the day ahead market to allow for enough capacity to be able to flow in real time for system balancing.⁴² This artificial transmission constraint creates an even greater need to have available enough generation north of Path 26⁴³, like the La Paloma Facility, to effectuate real time balancing. La Paloma understands that units at the Midway substation where La Paloma is located are uniquely able to support high flows on Path 26.⁴⁴ La Paloma is the largest of the generation facilities at Midway.⁴⁵ Absent these units, La Paloma's third party studies indicate that flows on Path 26 would be restricted to approximately half of the line's maximum rating and restrictions on the line could result.⁴⁶ While CAISO has admitted in a submission to the

⁴⁰ *Id.*

⁴¹ *Id.* at Attachment A, Sec. 4.1, p. 8.

⁴² CAISO Aliso Canyon Tariff Amendment Filing at 24-31. See California Independent System Operator Corporation, 155 FERC ¶ 61,224 (2016) (accepting CAISO's proposed tariff revisions).

⁴³ As previously indicated, La Paloma is located at Midway, the northern entry point to Path 26.

⁴⁴ Maiz Affidavit at P 8.

⁴⁵ *Id.*

⁴⁶ *Id.*

customer service, and CAISO has denied La Paloma's outage requests, CAISO has not yet agreed to a mechanism to provide just and reasonable compensation to preserve the ability of these units to operate.

As indicated previously, La Paloma's natural gas supply is not dependent on Aliso Canyon supply.⁴⁷ CAISO has stated that it faces the real prospect of curtailing electric service due to limited supply from generators in the south who rely on Aliso Canyon supply and to limited flow from north to south along Path 26. If appropriate compensation is made available to it, La Paloma's generation supply can remain available to assist in minimizing the problem, by supporting maximum flows on Path 26. In light of CAISO's representations that customer curtailments may occur due to some units' limited fuel availability, it would appear particularly egregious for CAISO not to protect against such occurrence by maintaining the viability of La Paloma, which is not affected by those potential fuel supply disruptions, through an annual RMR or other appropriate contractual arrangement for its uncommitted supply.

D. The Federal Power Act Requires the Opportunity for Just and Reasonable Compensation

FPA Section 205 requires that wholesale electric rates be "just and reasonable."⁴⁸ The FPA requires the Commission to ensure that rates are "neither too high nor too low to be confiscatory."⁴⁹ Courts have determined that,

⁴⁷ Maiz Affidavit at P 3.

⁴⁸ 16 U.S.C. § 824d.

⁴⁹ Norwalk Power, LLC, 122 FERC ¶ 61,273 at P 17 (2008). See also FPC v. Natural Gas Pipeline Co., 315 U.S. 575, 585 (1942) ("By longstanding usage in the field of rate regulation, the 'lowest reasonable rate' is one that is not confiscatory in the constitutional sense.").

in order to be "just and reasonable" in accordance with the FPA, rates must be sufficiently "ample to allow recovery of a utility's operating costs and a fair rate of return on capital investment."⁵⁰ As CAISO's own analyses show, and the Commission already is aware, CAISO's market is not providing sufficient compensation to certain generators. La Paloma is such a generator that is unable to recover its operating costs and a fair rate of return based on existing compensation levels.

The Commission has been attuned to deficiencies in Regional Transmission Organization ("RTO") and Independent System Operator ("ISO") market rules that may not provide for adequate compensation opportunities. It issued a notice, acknowledging its duty to take action when market design fails to produce just and reasonable results:

The Commission requires that rates for jurisdictional electricity service be just and reasonable and not unduly discriminatory or preferential.... The Commission has taken action to correct rates that become unjust and unreasonable, and has done so not only when the rates do not reflect costs but also when the underlying features, rate design, or market design fail to align. It is paramount that resources have appropriate incentives to respond to an energy or operating reserve shortage and that each resource is compensated based on a price that reflects the value of the service it provides.⁵¹

⁵⁰ Anaheim v. FERC, 669 F.2d 799, 801 (D.C. Cir. 1981) (citing *Public Sys. v. FERC*, 606 F.2d 973, 978 n. 24 (D.C. Cir. 1979)); see also FPC v. Hope Nat. Gas Co., 320 U.S. 591, 605 (1944) (recognizing that "[j]ust and reasonable" rates should "enable the company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the risks assumed").

⁵¹ Price Formation in Energy and Ancillary Services Markets Operated by Regional *Transmission Organizations and Independent System Operators*, Docket No. AD14-14-000, Notice at P 2 (issued June 19, 2014).

The Commission has required RTOs and ISOs to report on price formation issues, and on June 16, 2016 took a step towards advancing the its electric power price formation goals by issued a Final Rule in Docket No. RM15-24-000 establishing settlement interval and shortage pricing requirements for organized markets, including CAISO.⁵² While these Commission efforts at reform are greatly appreciated, their timeframe and scope are insufficient to alleviate the problems faced by La Paloma.

E. RMR Contracts are a Commission-Approved Means to Provide Compensation to Needed Generators in CAISO

Section 41 of the CAISO Tariff provides that CAISO and generators may enter into contracts to ensure the reliability of the grid.⁵³ The Commission is to approve the rate proposed in such contracts.⁵⁴ In a September 2015 memorandum to the ISO Board of Governors, Keith Casey, the Vice President of Market & Infrastructure Development for the CAISO, explained that "reliability must-run contracts remain an important backstop instrument to ensure reliability when other alternatives are not viable."⁵⁵ He explained the conditions that would

⁵² See, e.g., Settlement Intervals and Shortage Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators, Order No. 825, 115 FERC ¶ 61,276 (2016).

⁵³ California Independent System Operator Corporation, Fifth Replacement FERC Electric Tariff at Section 41.2 ("CAISO Tariff"); *see, e.g., Dynegy Oakland, LLC*, 155 FERC ¶ 61,162 (2016) (accepting proposed revisions to RMR agreement between Dynegy Oakland, LLC and CAISO); *AES Huntington Beach, L.L.C., et al.*, 142 FERC ¶ 61,017 (2013) (conditionally accepting RMR Agreement between AES Huntington Beach, LLC and CAISO to address 1,708 MW deficiency in the Los Angeles Basin and San Diego-Imperial Valley areas due to the outage of San Onofre Nuclear Generating Station); .

⁵⁴ Id.

⁵⁵ Memorandum from K. Casey to CAISO Board of Governors Re: Decision on Conditional Approval to Extend Reliability Must-Run Contracts for 2016 at 1 (Sept. 10, 2015). A copy of the memorandum is attached hereto as Exhibit G.

warrant the execution of an RMR agreement as including those in which "[a] resource is otherwise needed to meet local reliability service including voltage support, black start or dual fuel capability and is not under a resource adequacy contract" or to "[p]rotect availability of a given resource that could be jeopardized or reduced without a reliability must-run contract."⁵⁶

V. COMPLAINT

The Fifth Amendment of the United States Constitution prohibits the taking of private property without just compensation.⁵⁷ A regulatory taking occurs when property loses all or part of its value as a result of a government undertaking.⁵⁸ These are: "the economic impact of the regulation on the claimant and, particularly, the extent to which regulation has interfered with distinct investment-backed expectations,"⁵⁹ and the character of the government action.⁶⁰

By denying La Paloma's outage request, the CAISO has prevented La Paloma from mitigating its financial losses, and instead has compelled La Paloma to maintain operations, without providing it with an appropriate mechanism to recover the costs associated with that operation. In order to comply with CAISO's outage disapproval, La Paloma would need to incur

⁵⁶ Id.

⁵⁷ Lingle v. Chevron U.S.A., Inc., 544 U.S. 528, 536 (2005).

⁵⁸ See, e.g., Sunrise Corp. of Myrtle Beach v. City of Myrtle Beach, 410 F.3d 322, 330 (4th Cir. 2005); Good v. United States, 189 F. 3d 1355, 1360 (Fed. Cir. 1999); see Horne v. Dep't of Agriculture, --- U.S. ---, 135 S. Ct. 2419, 2427 (2015) (stating that a regulatory taking is "a restriction on the use of property that [goes] 'too far.'" (quoting Penn. Coal Co. v. Mahon, 260 U.S. 393, 415 (1922))).

⁵⁹ Penn. Cent. Transp. Co. v. New York City, 438 U.S. 104, 124 (1978).

⁶⁰ See Horne, 135 S. Ct. at 2427.

additional costs it otherwise would have avoided. CAISO's disapproval of the outage tickets, absent the provision of adequate compensation, has a direct negative economic impact on La Paloma, interferes with La Paloma's investment-backed expectations, and is harmful to the public interest. To avoid the occurrence of a regulatory taking, the Commission should determine that appropriate compensation should be provided for La Paloma's continued operation, through an annual RMR agreement.

There can be no question that if the Commission does not act, the CAISO's denial of La Paloma's outage request has caused, and will continue to cause, economic loss to La Paloma.⁶¹ Every day that La Paloma is compelled to maintain operations without a means of appropriate cost recovery, La Paloma loses money. The Commission has recognized that, if an RTO or ISO desires a generating unit to remain in operation when the generator has stated its intent to take the unit out of service, the generator must be compensated.⁶² Furthermore, the Commission has held that, regardless of whether compensation is provided, an RTO or ISO cannot compel a generator to maintain operations for an indefinite period of time.⁶³ In so doing, the Commission has worked to maintain a

⁶¹ See, e.g., Loveladies Harbor, Inc. v. United States, 28 F.3d 1171, 1178 (Fed. Cir. 1994) (recognizing there is "a threshold requirement that the plaintiff show a serious financial loss from the regulatory imposition").

⁶² See PJM Interconnection, L.L.C., 107 FERC ¶ 61,112 at P 42 (2004) ("If [a] unit cannot be permitted to retire because of reliability concerns, the generator should be compensated for keeping the unit in service.").

⁶³ See PJM Interconnection, L.L.C., 110 FERC ¶ 61,053 at P 137 (2005) ("[W]e are rejecting the specific language . . . that provides that PJM can 'require' generators to continue to operate for an indeterminate period, because PJM has not adequately shown that it has the authority to require generators to operate beyond a reasonable notice period.").

balance between the reliability needs of the system and the economic needs of generators. Generators are entitled to control their property, ⁶⁴ and must be allowed to decide when and whether to remain in operation if they are without a mechanism to recover operating costs.⁶⁵

If the Commission does not take action, it will allow the CAISO to interfere with La Paloma's investment-backed expectations. Consideration of this factor is intended "to limit recoveries to property owners who can demonstrate that 'they bought their property in reliance on a state of affairs that did not include the challenged regulator regime."⁶⁶ La Paloma had a reasonable expectation when it invested in the La Paloma Facility that it would be permitted to take actions to mitigate and eliminate its losses if competitive markets did not provide adequate compensation. La Paloma did not expect that it would be required to expend funds to operate its facility uneconomically when its participation in auctions and pursuit of other efforts to sell reliability assurance and other products have not yielded compensatory contractual commitments. Instead, due to CAISO's actions, La Paloma is compelled to incur expenses to maintain operations, even

⁶⁴ *Cf. ISO New England, Inc., et al.*, 135 FERC ¶ 61,029 at P 255 (2011) (recognizing that a "confiscation of a resource's property [can occur] by compelling it to provide service").

⁶⁵ The Commission has recognized that "[i]t is questionable whether . . . the Commission could enforce[] a requirement that generators continue to operate at a loss." *PJM Interconnection, L.L.C.*, 115 FERC ¶ 71,079 at P 36 (2006) (citing *In Re Central R. Co.*, 485 F.2d 208, 213 (3d Cir. 1973) (even within the context of providing a public service, "[a]n owner of property retains the right ultimately to withdraw that property from a losing venture")).

⁶⁶ Cienega Gardens v. United States, 331 F.3d 1319, 1346 (Fed. Cir. 2003) (quoting Loveladies Harbor, Inc., 28 F.3d at 1178).

though CAISO has provided no mechanism by which La Paloma may recover its costs for doing so.

Finally, the "character of the government action" requires that a "reviewing court consider the purpose and importance of the public interest reflected in the regulatory imposition."⁶⁷ This factor balances the "liberty interest of the private property owner against the Government's need to protect the public interest through imposition of the restraint,"68 including evaluating "whether the method of attaining the sought-after goal was reasonably designed to attain it."69 CAISO has mechanisms to compensate generators whose continued operation is important to reliability but whose operations are in jeopardy. It may not both deny La Paloma the compensation that is necessary to avoid continuing financial losses and earn an appropriate return on investment, and deny La Paloma the right to mitigate its losses by taking the requested outages. The Commission must not ratify CAISO's unjustified denial of La Paloma's outage requests without requiring an appropriate compensation mechanism; to do so would effect a regulatory taking upon La Paloma without appropriate compensation, in contravention of the United States Constitution.

VI. REQUEST FOR SUMMARY DISPOSITION

The Commission is able to provide the requested relief requested in this proceeding based on this Complaint and supporting documentation. No evidentiary hearing is required for the Commission to reach the determinations

⁶⁸ Id.

⁶⁷ Loveladies Harbor, Inc., 28 F.3d at 1176.

⁶⁹ Id.

sought in this proceeding. The Commission has an established practice to seek to resolve proceedings without hearings when there are no genuine issues of material fact involved. Once it receives its RMR designation, La Paloma will seek Commission approval of the rate.

VII. REQUEST FOR RELIEF

La Paloma respectfully requests that the Commission issue an order requiring CAISO to grant La Paloma an annual RMR designation for with an effective date of July 1, 2016, for its uncommitted supply, or otherwise provide a mechanism for appropriate cost recovery on an expedited basis to allow La Paloma to continue the operation of these units due to CAISO's denial of its outage requests.

VIII. OTHER INFORMATION REQUIREMENTS OF RULE 206

A. Financial Impact

In accordance with Rule 206(b)(4), 18 C.F.R. § 385.206(b)(4), La Paloma estimates that if it were to continue in operation without an RMR agreement its financial losses over the requested annual term of that agreement will exceed \$39 million.

B. Practical, Operational And Non-Financial Impact

In accordance with Rule 206(b)(5), 18 C.F.R. § 385.206(b)(5), CAISO's actions have an operational impact in that units La Paloma has sought to place in outage status must continue to operate.

C. Other Proceedings

In accordance with Rule 206(b)(6), 18 C.F.R. § 385.206(b)(6), La Paloma states that to the best of its knowledge the issues presented in this Complaint are

not pending in any existing proceeding at the Commission or in any other forum in which La Paloma is a party.

D. Negotiations Among The Parties

In accordance with Rule 206(b)(9), 18 C.F.R. § 385.206(b)(9), La Paloma has sought resolution of the issues raised in this Complaint with CAISO before making this filing, but its attempts to achieve mutually agreeable resolution were unsuccessful. Thus, La Paloma does not believe alternative dispute resolution or other informal dispute resolution procedures would be successful to resolve this Complaint.

E. Service And Form Of Notice

In accordance with Rule 206(c), 18 C.F.R. § 385.206(c), La Paloma simultaneously is serving a copy of this filing on designated representatives of CAISO. A form of notice suitable for publication in the Federal Register in accordance with the specifications in Rule 206(b)(10), 18 C.F.R. § 385.206(b)(10) and Rule 203(d), 18 C.F.R. § 203(d) is attached hereto as Attachment 1. La Paloma also provides a copy of the form of notice in Microsoft Word format.

F. Fast Track Processing

The reasons standard processes are inadequate to expeditiously resolve the complaint are set forth in Section X *infra*.

IX. DOCUMENTS INCLUDED WITH THIS COMPLAINT

The following documents are included with and in support of this Complaint:

Attachment 1 Notice of Complaint

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- Exhibit A Affidavit of James Maiz
- Exhibit B Map of Midway Area and Path 26
- Exhibit C Excerpts from 2015 CAISO Annual Report
- Exhibit D Screenshots of La Paloma's online outage requests for units 1, 3, and 4
- Exhibit E Screenshot evidencing CAISO's disapproval of La Paloma's online outage requests for units 1, 3 and 4
- Exhibit F Screenshot evidencing CAISO's disapproval of La Paloma's online request for a maintenance outage for unit 2
- Exhibit G Memorandum from K. Casey to CAISO Board of Governors Re: Decision on Conditional Approval to Extend Reliability Must-Run Contracts for 2016

X. REQUEST FOR FAST TRACK PROCESSING, SHORTENED TIME PERIOD AND WAIVERS

The issues raised in this Complaint require expeditious resolution and warrant fast track processing under the Commission's Rules of Practice and Procedure.⁷⁰ La Paloma has sought the right to take short term outages as of July 1, 2016. Unless resolution of this situation is achieved quickly, La Paloma will be forced involuntarily to operate as of that date and beyond without any guarantee of appropriate cost recovery. Time accordingly is of the essence to ensure La Paloma receives the RMR designation promptly so that it is fairly compensated for continued operations.

The comment period for a Complaint seeking fast track processing "may be shortened by the Commission from the time provided in section 385.206(f)."⁷¹

⁷⁰ 18 C.F.R. § 385.206(b)(11); 18 C.F.R. § 385.206(h).

⁷¹ 18 C.F.R. § 385.206(h)(3).

La Paloma requests that the Commission establish a shortened comment period of 13 days for CAISO and other interested parties to respond to this Complaint. A shortened comment period is appropriate because CAISO has long been aware of La Paloma's financial distress, which has now worsened to the point of precipitating this Complaint, and the remedy sought to address the revenue shortfall is a Tariff approved mechanism that has been employed in the past. La Paloma has filed this complaint promptly upon receipt of the CAISO denials and requires imminent relief given the accumulation of financial losses each passing day. Accordingly, La Paloma requests that the Commission grant this Complaint as soon as possible and in no event later than July 29.

La Paloma respectfully requests waiver of any applicable requirements in the CAISO Tariff, rules and agreements, as well as waiver of applicable requirements in the Commission's orders, rules and regulations, necessary to grant this complaint.⁷²

XI. CONCLUSION

WHEREFORE, for the reasons explained herein, La Paloma respectfully requests that the Commission impose a shortened time period for answering the complaint, and issue an order requiring CAISO to provide La Paloma with an annual RMR designation or other appropriate contractual compensation on an expedited basis for the uncommitted supply of the La Paloma Facility.

⁷² The Commission has waived its regulatory requirements when considered appropriate. *See, e.g., Mesquite Solar I, LLC,* 144 FERC ¶ 62,012 (2013) (order approving filing that sought waiver of various regulatory requirements); *TransCanada Pipelines Limited, et al.,* 112 FERC ¶ 62,031 (2005) (same); *EIF Berkshire Holdings, LLC,* 116 FERC ¶ 61,273 (2006) (same).

Respectfully submitted,

<u>/s/ James Maiz</u> James Maiz Rockland Capital Vice President 24 Waterway Avenue Suite 800 The Woodlands, TX 77380 Tel : (281) 863-9006 Email: James.Maiz@rocklandcapital.com /s/ Sandra E. Rizzo___

Sandra E. Rizzo Renée Tyndell Beaver Arnold & Porter LLP 601 Massachusetts Ave., NW Washington, DC 20001 Tel: (202) 942-5000 Fax: (202) 942-5999 E-mail: Sandra.Rizzo@aporter.com Renee.Beaver@aporter.com

Attorneys for La Paloma Generating Company LLC

June 17, 2016

ATTACHMENT 1 NOTICE OF COMPLAINT

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

La Paloma Generating Company, LLC v. California Independent System Operator Corporation

Docket No. EL16-___-000

NOTICE OF COMPLAINT

(Insert Date)

Take notice that on ______, pursuant to section 206 of the Rules and Practice and Procedure of the Federal Energy Regulatory commission (Commission), 18 CFR § 385.206 (2015), La Paloma Generating Company, LLC (La Paloma) filed a formal complaint against California Independent System Operator Corporation (CAISO) requesting that the Commission issue an order requiring CAISO to grant La Paloma a Reliability Must Run designation effective as of July 1, 2016 for Units 1, 3, and 4, or otherwise provide a mechanism for appropriate cost recovery on an expedited basis to allow La Paloma to continue operation of those units due to CAISO's denial of La Paloma's outage requests.

The Complainant states that copies of the complaint were served on representatives of the Respondent.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR §§ 385.211, 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the

proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. The Respondent's answer and all interventions, or protests must be filed on or before the comment date. The Respondent's answer, motions to intervene, and protests must be served on the Complainants.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <u>http://www.ferc.gov</u>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426.

This filing is accessible on-line at <u>http://www.ferc.gov</u>, using the "eLibrary" link. There is an "eSubscription" link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email <u>FERCOnlineSupport@ferc.gov</u>, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Comment Date: 5:00 pm Eastern Time on _____, 2016. Kimberly D. Bose, Secretary 20160617-5241 FERC PDF (Unofficial) 6/17/2016 4:45:12 PM

EXHIBIT A

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

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La Paloma Generating Company, LLC

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Docket No. EL16-___000

California Independent System Operator Corporation

AFFIDAVIT OF JAMES MAIZ ON BEHALF OF LA PALOMA GENERATING COMPANY, LLC

- My name is James Maiz. I am a Partner at Rockland Capital, LLC, an upstream owner of La Paloma Generating Company, LLC ("La Paloma"). My business address is 24 Waterway Avenue, Suite 800, The Woodlands, Texas, 77380. I have personal knowledge of the matters stated herein.
- 2. La Paloma Generating Company, LLC ("La Paloma") owns a 965.4 MW (summer rating) combined-cycle natural gas-fired generating facility located in McKittrick, California (the "La Paloma Facility"). The La Paloma Facility achieved commercial operation in 2003. It is directly interconnected to Pacific Gas & Electric's Midway Substation in the California Independent System Operator Corporation ("CAISO") balancing authority area.
- 3. The La Paloma Facility receives gas directly from the Kern River Gas Transmission System pipeline and the Mojave pipeline. The natural gas supply of the La Paloma Facility is not dependent on the Aliso Canyon facility.

- 4. The La Paloma Facility employs a turbine technology that allows it to have a very favorable heat rate and low carbon intensity. With a minor modification that can be accomplished during a short outage, the La Paloma Facility can be modified to reduce its Pmin heat rate. This feature is relatively unique to the La Paloma Facility and can offer important benefits to CAISO in the face of growing renewable generation and the need for flexible turndown. This additional turndown translates into reduced fuel consumption, lower greenhouse gas emissions, and dramatically lower water consumption.
- 5. Although the La Paloma Facility is regularly dispatched by CAISO for energy, La Paloma has experienced a substantial decline in its merchant market revenues and has minimal sales of resource adequacy. As a result, La Paloma is experiencing a substantial shortfall in revenues required to support the La Paloma Facility.
- 6. La Paloma estimates that if it were to continue in operation without a Reliability Must Run agreement its financial losses over the requested annual term of that agreement will exceed \$39 million.
- 7. Absent some change in compensation, La Paloma has determined that continued economic operation of the La Paloma Facility is not justified, at least in the short to medium term, given the non-compensatory market revenues that the La Paloma Facility has received and expects to receive during this time frame.
- 8. Based on privately-commissioned studies, the high level of reliability and

flexibility provided by the La Paloma Facility, the frequency and level by which it is dispatched by CAISO, and the Facility's key location at the Midway Substation, La Paloma believes that the La Paloma facility is important to maintain reliability in CAISO. La Paloma understands that units at the Midway Substation where La Paloma is located are uniquely able to support high flows on Path 26. La Paloma is the largest of the generation facilities at Midway. Absent these units, La Paloma's thirdparty studies indicate that flows on Path 26 would be restricted to approximately half of the line's maximum rating and restrictions on the line could result.

- 9. Representatives of La Paloma have discussed the market signals received by La Paloma and their likely effect on the continued operation of the La Paloma Facility absent contractual or other relief, with representatives of the CAISO and other California state agencies on various occasions since 2014.
- 10. Although La Paloma has received some level of sympathy regarding La Paloma's economic situation, no viable solution to the economic hardship currently experienced by the La Paloma Facility has emerged. In the meantime, La Paloma's economic situation has continued to deteriorate.
- 11. Ideally, La Paloma would have provided a longer notice period to CAISO before pursuing outages for Units 1, 3, and 4 of the La Paloma facility. However, CAISO's markets operate differently than the markets in other Regional Transmission Organizations that have auctions one to three

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years in advance of the delivery year. Those markets provide generators with certainty as to whether their units are necessary and can operate economically going forward. In contrast, CAISO employs *ad hoc* solicitations throughout the year by investor owned utilities to satisfy monthly requirements. As a result, La Paloma did not have the benefit of advance notice that its units would not have sufficient commitments to warrant operation over the time period covered by its outage requests.

12. This concludes my affidavit.

I, James Maiz, being duly sworn, depose and state that the contents of the foregoing Affidavit on behalf of La Paloma Generating Company, LLC are true, correct, accurate and complete to the best of my knowledge, information, and belief.

James Maiz Partner Rockland Capital, LLC

SUBSCRIBED AND SWORN to Before me this <u>17th</u>day of <u>JUNE</u>, 2016

Notary Public 120 My Commission Expires: _



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EXHIBIT B


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EXHIBIT C

2015 ANNUAL REPORT ON MARKET ISSUES & PERFORMANCE





Department of Market Monitoring – California ISO

Generating unit	Unit type	Resource capacity (MW)	Summer capacity (MW)	Commercial operation date	Area
Rising Tree 1*	Wind	79	17	12-Jan-15	SCE
Rising Tree 2*	Wind	20	4	12-Jan-15	SCE
Little Rock C*	Solar	5	3	17-Jan-15	SCE
Phoenix*	Wind	11	2	26-Jan-15	SCE
Pumpjack Solar 1*	Solar	19	13	27-Jan-15	SCE
Golden Springs Building M*	Solar	2	1	1-Apr-15	SCE
Meridian*	Solar	1	1	13-Apr-15	SCE
Terra Francesca*	Solar	1	1	13-Apr-15	SCE
Golden Springs Building H*	Solar	2	1	22-Apr-15	SCE
Alamo Solar*	Solar	20	14	15-Ma y-15	SCE
Kona Solar - Rancho DC #1*	Solar	2	1	2-Jun-15	SCE
Summer Solar North*	Solar	7	4	3-Jun-15	SCE
Victor Dry Farm Ranch A*	Solar	5	3	12-Jun-15	SCE
Victor Dry Farm Ranch B*	Solar	5	3	12-Jun-15	SCE
Solar Star 2 (Phase II)*	Solar	40	27	19-Jun-15	SCE
Rising Tree 3*	Wind	99	22	25-Jun-15	SCE
Solar Star 1 (Phase II)*	Solar	133	91	25-Jun-15	SCE
Adelanto Solar 2*	Solar	7	5	1-Jul-15	SCE
Catalina Solar 2*	Solar	18	12	22-Jul-15	SCE
Palmdale East*	Solar	10	7	31-Jul-15	SCE
AP North Lake Solar*	Solar	20	14	11-Aug-15	SCE
Adelanto Solar*	Solar	20	14	3-Sep-15	SCE
Tequesquite Landfill Solar Project*	Solar	8	5	9-Sep-15	SCE
Redcrest Solar Farm*	Solar	17	11	30-Oct-15	SCE
Sierra Solar Greenworks LLC*	Solar	20	14	30-Nov-15	SCE
Morgan Lancaster I*	Solar	2	1	9-Dec-15	SCE
McCoy Station (Phase I)*	Solar	99	68	16-Dec-15	SCE
Silver State South (Phase I)*	Solar	91	63	28-Dec-15	SCE
Desert Stateline (Phase I)*	Solar	110	75	31-Dec-15	SCE
ESJ Wind Energy (Phase I)*	Wind	155	34	4-Jun-15	SDG&
Seville Solar One*	Solar	20	14	30-Dec-15	SDG&
SCE and SDG&E Actual New Generation in 2	015	1,048	547		
Total Actual New Generation in 2015		1,696	949		
Total Renewable Generation in 2015*		1,696	949		

Source: California ISO Interconnection Resources Department

1.3 Net market revenues of new gas-fired generation

Every wholesale electric market must have an adequate market and regulatory framework for facilitating investment in needed levels of new capacity. The CPUC's long-term procurement process and resource adequacy program are currently the primary mechanisms to ensure investment in new capacity when and where it is needed. Given this regulatory framework, annual fixed costs for existing and new units critical for meeting reliability needs should be recoverable through a combination of long-term bilateral contracts and spot market revenues.

Each year, DMM examines the extent to which revenues from the spot markets would contribute to the annualized fixed cost of typical new gas-fired generating resources. This represents an important market metric tracked by all ISOs.⁴⁴ Costs used in the analysis are based on a study by the California Energy Commission (CEC).

Hypothetical combined cycle unit

Key assumptions used in this analysis for a typical new combined cycle unit are shown in Table 1.7. Results for a typical new combined cycle unit are shown in Table 1.8 and Figure 1.20. The results show a decrease in net revenues in 2015 compared to 2014. The latest CEC reports of annualized fixed costs have also decreased from \$176/kW-year to \$165/kW-yr. The 2015 net revenue estimates for a hypothetical combined cycle unit in NP15 and SP15 both still fall substantially below \$165/kW-yr.

Technical Parameters	
Maximum Capacity	500 MW
Minimum Operating Level	150 MW
Startup Gas Consumption	1,400 MMBtu/start
Heat Rates	
Maximum Capacity	7,100 MBTU/MW
Minimum Operating Level	7,700 MBTU/MW
Financial Parameters	
Financing Costs	\$89 /kW-yr
Insurance	\$6.7 /kW-yr
Ad Valorem	\$8.8 /kW-yr
Fixed Annual O&M	\$43.7 /kW-yr
Taxes	\$17.1 /kW-yr
Total Fixed Cost Revenue Requirement	\$165.2/kW-yr

Table 1.7 Assumptions for typical new combined cycle unit⁴⁵

⁴⁴ A more detailed description of the methodology and results of the analysis presented in this section are provided in Appendix A.1 of DMM's 2009 Annual Report on Market Issues & Performance, April 2010, which can be found at <u>http://www.caiso.com/2777/27778a322d0f0.pdf</u>.

⁴⁵ The financing costs, insurance, ad valorem, fixed annual O&M and tax costs for a typical unit in this table were derived directly from the data presented in the March 2015 CEC Estimated Cost of New Renewable and Fossil-Fueled Generation in California, Final Staff Report: <u>http://www.energy.ca.gov/2014publications/CEC-200-2014-003/CEC-200-2014-003-SF.pdf</u>. The cost of actual new generators varies significantly due to factors such as ownership, location and environmental constraints. More detailed information can be found in the CEC report.

Department of Market Monitoring - California ISO

Components	20:	12	20:	13	20:	14	20:	15
Components -	NP15	SP15	NP15	SP15	NP15	SP15	NP15	SP15
Capacity Factor	70%	75%	84%	83%	83%	84%	92%	93%
DA Energy Revenue (\$/kW - yr	\$118.95	\$134.59	\$286.19	\$315.53	\$325.36	\$326.07	\$251.35	\$251.61
RT Energy Revenue (\$/kW - yr)	\$11.70	\$11.62	\$10.17	\$10.14	\$23.62	\$22.08	\$12.39	\$9.45
A/S Revenue (\$/kW-yr)	\$0.37	\$0.39	\$0.03	\$0.06	\$0.08	\$0.09	\$0.04	\$0.06
Operating Cost (\$/kW - yr)	\$103.01	\$108.96	\$256.78	\$266.00	\$295.03	\$287.00	\$224.16	\$215.35
Net Revenue (\$/kW-yr)	\$28.02	\$37.64	\$39.62	\$59.73	\$54.02	\$61.23	\$39.62	\$45.77
4-yr Average (\$/kW–yr)	\$40.32	\$51.09						

 Table 1.8
 Financial analysis of new combined cycle unit (2012-2015)



Figure 1.20 Estimated net revenue of hypothetical combined cycle unit

Hypothetical combustion turbine unit

Key assumptions used in this analysis for a typical new combustion turbine are shown in Table 1.9. Table 1.10 and Figure 1.21 show estimated net revenues that a hypothetical combustion turbine unit would have earned by participating in the real-time energy and non-spinning reserve markets. These results show an increase in net revenues for both the NP15 and SP15 areas in 2015 compared to 2014. This increase is attributable to the significant decrease in natural gas prices in 2015. As seen in Table 1.10, estimated operating costs decreased substantially from \$59.46/kW-yr to \$44.10/kW-yr in 2015 in the NP15 area. The low natural gas prices also led to lower wholesale energy prices, reducing the estimated energy revenues. However, the decrease in estimated operating costs exceeded the decline in energy revenues, resulting in a net revenue increase.

The CEC's estimate of annualized fixed costs for a hypothetical combustion turbine also decreased from \$190/kW-year to \$176/kW-year. Despite these changes, the estimated net revenues still fell well short of \$176/kW-year.

Technical Parameters	
Maximum Capacity	100 MW
Minimum Operating Level	40 MW
Startup Gas Consumption	280 MMBtu/start
Heat Rates (MBTU/MW)	
Maximum Capacity	9,300
Minimum Operating Level	9,700
Financial Parameters	
Financing Costs	\$105.8 /kW-yr
Insurance	\$8 /kW-yr
Ad Valorem	\$10.6 /kW-yr
Fixed Annual O&M	\$34.7 /kW-yr
Taxes	\$17.1 /kW-yr
Total Fixed Cost Revenue Requirement	\$176.2/kW-yr

Table 1.9Assumptions for typical new combustion turbine46

Table 1.10	Financial analysis of new combustion turbine (2012-2015)
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Components	201	.2	201	.3	201	.4	201	5
Components	NP15	SP15	NP15	SP15	NP15	SP15	NP15	SP15
Capacity Factor	5%	8%	8%	9%	10%	10%	11%	12%
Energy Revenue (\$/kW - yr)	\$48.78	\$78.89	\$58.48	\$82.95	\$85.48	\$87.31	\$78.56	\$86.56
A/S Revenue (\$/kW - yr)	\$4.29	\$5.04	\$1.14	\$1.34	\$0.71	\$0.86	\$1.35	\$1.92
Operating Cost (\$/kW - yr)	\$14.82	\$23.62	\$38.03	\$42.85	\$59.46	\$57.26	\$44.10	\$48.31
Net Revenue (\$/kW - yr)	\$38.26	\$60.32	\$21.59	\$41.45	\$26.73	\$30.91	\$35.81	\$40.17
4-yr Average (\$/kW - yr)	\$30.60	\$43.21						

⁴⁶ The financing costs, insurance, ad valorem, fixed annual O&M and tax costs for a typical unit in this table were derived directly from the data presented in the March 2015 CEC Estimated Cost of New Renewable and Fossil-Fueled Generation in California, Final Staff Report: <u>http://www.energy.ca.gov/2014publications/CEC-200-2014-003/CEC-200-2014-003-SF.pdf</u>. The cost of actual new generators varies significantly due to factors such as ownership, location and environmental constraints. More detailed information can be found in the CEC report.

Department of Market Monitoring – California ISO



Figure 1.21 Estimated net revenues of new combustion turbine

Findings in this section underscore the critical importance of long-term contracting as the primary means for facilitating new generation investment. Local requirements for new generation investment should be addressed through long-term bilateral contracting under the CPUC resource adequacy and long-term procurement framework. Under California's current market design, these programs can provide additional revenue for new generation and cover the gap between annualized capital cost and the simulated net spot market revenues provided in the previous section.

A more detailed discussion of issues relating to capacity procurement, investment in new and existing generating capacity, and longer-term resource adequacy is provided in Chapter 10 of this report.

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OUTAGE 10: 3986635		Planns	d .				PAN			DESA	PPRO
Repource Name:			Resource Type:			Start:	End:		Emergency Returns		
La Paloma Generating Plant	UNE #1-LAPLM	A_2_UNIT 1	GEN	PMAX: 25	59.80	07/01/2016 00	-00 11	/30/2016 23:59	Duration *	Affects RAG/SPS:	
Participanti			Participant Outage ID	Nature of	Work	Short Description					
60F2				AMBLENT	NOT_DUE_TO_TEMP	GADS Code 9160	- 'sther economic pri	oblems." No RA procur	ed from unit, and		
Availability Date/Time C	NDC NDC	PMAX	Availability MW Curtail	Internet Mills		online constraints		with Path 26 internal to	andler reservations and		
07/01/2016 00:00	1 11	259.00	359.80	0.00							
		259,90	159.80	0.00							
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Participant:		Participant Outage ID:	Nature of Work:		art Description:				
EDF2			ANBIENT_NOT_DUE_				blems." No RA procure	ed from unit, and inter reservations and	
Availability Date/Time 000	NDC PMAX	Availability MW Curtail	ment MW		line constraints,	and a second sec	and the second state of		
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3566633 EDF3 LA PALONA GENERATING PLANT, UNIT #4						
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EXHIBIT F

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EXHIBIT G



Memorandum

To: ISO Board of Governors

From: Keith Casey, Vice President of Market & Infrastructure Development

Date: September 10, 2015

Re: Decision on conditional approval to extend reliability must-run contracts for 2016

This memorandum requires Board action.

EXECUTIVE SUMMARY

Total capacity and the number of resources under reliability must-run contracts with the California ISO has been significantly reduced since the implementation of the state's resource adequacy program and the addition of new grid facilities. However, reliability must-run contracts remain an important backstop instrument to ensure reliability when other alternatives are not viable. This year, the ISO requests that the Board of Governors grant Management the authority to extend, through calendar year 2016, the reliability must-run contracts for the Dynegy Oakland, LLC generating units as well as the AES Huntington Beach, LLC synchronous condensers listed in *Attachment 1*.

Management will exercise this authority to extend a reliability must-run contract or designate a resource as needed for reliability must-run service under the following conditions:

- A load serving entity does not purchase the capacity needed to satisfy local reliability criteria in the *ISO 2016 Local Capacity Technical Analysis* through a resource adequacy contract; or
- The load serving entity does purchase the capacity under a resource adequacy contract, but Management needs a reliability must-run contract to:
 - 1. Obtain from the unit a reliability service, such as voltage support, black start or dual fuel capability; or
 - 2. Mitigate local market power; or
 - 3. Protect availability of a given resource that could be jeopardized or reduced without a reliability must-run contract.
- A resource is otherwise needed to meet local reliability service including voltage support, black start or dual fuel capability and is not under a resource adequacy contract.

Where a reliability must-run contract augments a resource adequacy contract, Management will ensure that any fixed cost recovery will compensate the unit owner only for the incremental costs of providing reliability must-run services. This will guarantee the owner is not paid twice for its capacity.

Moved, that the ISO Board of Governors authorizes Management to extend reliability must-run contracts for any of the reliability mustrun units listed on Attachment 1, consistent with the criteria described in the memorandum dated September 10, 2015.

DISCUSSION AND ANALYSIS

Management requests authority to extend the existing reliability must-run contracts (up to 165 MW of capacity) listed in *Attachment 1*. If it determines additional resources are needed for reliability must-run service, Management will seek further Board approval to enter into additional reliability must-run contracts to ensure all local capacity and reliability requirements are met. *Attachment 1* also identifies resources that currently have black start (1463 MW of capacity) and dual fuel (163 MW of capacity) agreements at zero capacity cost¹, which the ISO may also extend for the 2016 contract year.

Under long-established provisions of the existing *pro forma* reliability must-run contract, by October 1 of any year, the ISO must notify a reliability must-run unit owner that the ISO wishes to extend the existing contract from January 1 through December 31 of the following year. If the contract is not extended by this date, the reliability must-run unit may not be designated again for one full year unless:

- The unit is needed due to extended outage of another unit or a transmission element not known at the time of the contract expiration; or
- The unit is selected through a competitive process in which the unit owner participated.

The California Public Utilities Commission requires its jurisdictional load serving entities to provide a preliminary resource adequacy showing to the ISO by September 15, 2015. This information will allow the ISO to potentially avoid an unnecessary extension of a reliability must-run contract. These showings are preliminary because the CPUC jurisdictional load serving entities have until October 31 to submit their final year-ahead resource adequacy showings. These final showings must demonstrate compliance with all CPUC imposed year-ahead procurement targets (100% local capacity area resources and 90% of the load serving entities' demand forecast and reserve margin for the months May through September).

Consistent with longstanding practice due to the timing required for renewal of the reliability must-run contracts, Management requests Board authorization to extend the

¹ Zero cost dual fuel and black start agreements do not require Board approval.

term of the contracts for an additional year and delegation to Management the discretion to do so based on review of the preliminary resource adequacy showings. Management will brief the Board on the results of reliability must-run contract extension at the November board meeting.

ATTACHMENT 1: 2016 Reliability Must-Run, Black Start and Dual Fuel Contract Status

Any Extend		Units Extension Status be effective January 1, 2016 thru Dec	ember 31, 2016	
		e terminated effective Midnight on De		
Owner	RMR Contract	Unit	MW	Status
AEC Huntington Depah LLC	Huntington Beach	Huntington Beach, Unit 3	0	TBD
AES Huntington Beach, LLC		Huntington Beach, Unit 4	0	
Dynegy Oakland, LLC	Oakland	Oakland, Unit 1	55	TBD
		Oakland, Unit 2	55	
		Oakland, Unit 3	55	
	Black Start Contracts v	art Units Extension Status vill be effective January 1, 2016 thru D Il be terminated effective Midnight on L		
Owner		Unit	MW	Status
Pacific Gas and Electric Company Southern California Edison Company		Pit River Watershed Units	249.1	TBD
		Kings River Watershed II Units	250.6	TBD
		Feather River Watershed Units	180	TBD
		Big Creek Physical Scheduling Plant	354	TBD
		McGrath Peaker	47	
		Barre Peaker	47	
		Center Peaker	47	
		Grapeland Peaker	46	
		Mira Loma Peaker	46	
San Diego Gas & Electric Company		Miramar Energy Facility, Unit 1	47.6	TBD
San Diego Gas & Electric Corr	ipany	Miramar Energy Facility, Unit 2	48.6	TBD
		Orange Grove, Unit 1	49.85	TBD
Orange Grove Energy, L.P.		Orange Grove, Unit 2	49.85	TBD
	Dual Fuel Contracts w	reement Units Extension Status rill be effective January 1, 2016 thru De I be terminated effective Midnight on D		
Owner	Contract	Unit	MW	Status
Pacific Gas and Electric Company	Humboldt Bay	Humboldt Bay, Unit 1	48.8	TBD
		Humboldt Bay, Unit 2	48.8	
		Humboldt Bay, Unit 3	40.0	

CERTIFICATE OF SERVICE

Pursuant to Commission Rules 206(c) and 2010, 18 C.F.R. §§ 385.206(c), 2010,

I hereby certify that a copy of the foregoing was served by email and overnight mail service this day upon the following corporate officials designated for service for the California Independent System Operator Corporation:

Anthony Ivancovich Senior Regulatory Counsel California Independent System Operator Corporation 250 Outcropping Way Folsom, CA 95630 Telephone: 916-351-4400 Fax: 916-608-7222 Email: aivancovich@caiso.com

Kenneth G. Jaffe Alston & Bird LLP 950 F Street NW Washington, DC 20004 Telephone: 202-239-3154 Email: kenneth.jaffe@alston.com

Dated at Washington, D.C. this 17th day of June, 2016.

<u>/s/ Renée Tyndell Beaver</u> Renée Tyndell Beaver

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