

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426

In Reply Refer To:  
Office of Enforcement  
Docket No. PA17-3-000

September 14, 2018

California Independent System Operator Corporation  
Attention: Roger Collanton  
Vice President, General Counsel  
250 Outcropping Way  
Folsom, CA 95630

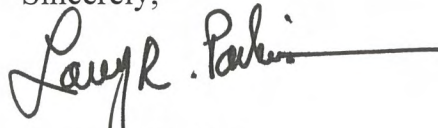
Dear Mr. Collanton:

1. The Division of Audits and Accounting (DAA) within the Office of Enforcement (OE) of the Federal Energy Regulatory Commission (Commission) has completed an audit of the California Independent System Operator Corporation (CAISO). The audit covered the period from January 1, 2014 to the March 2, 2018.
2. The audit evaluated CAISO's compliance with: (1) CAISO's compliance with certain responsibilities under its FERC Electric Tariff (OATT), business practices, corporate bylaws, policies, and codes of conduct related to its market-administration and transmission-provider obligations; (2) CAISO's governance structure and the independence of its operations from market participants; (3) the independence and effectiveness of its market monitoring and oversight activities under Appendices O and P of the OATT and FERC Order No. 719; (4) transmission planning under FERC Order No. 1000; (5) compliance with Commission accounting regulations under the Uniform System of Accounts in 18 C.F.R. Part 101; and (6) compliance with FERC financial reporting requirements under 18 C.F.R. Part 141. The enclosed audit report contains five findings, one Other Matter and 10 recommendations that require CAISO to take corrective action.
3. On September 4, 2018, CAISO and its Department of Market Monitoring (DMM) filed separate and independent responses to the draft audit report. In its response, CAISO indicated that it does not dispute, and generally agrees with, audit staff's findings and recommendations. DMM notified DAA that DMM agrees with the findings and recommendations in the Audit Report, subject to the limited comments and clarifications provided in its response. Both CAISO and its DMM indicated that they have begun taking corrective actions to address the report's recommendations.

DAA appreciates all timely proactive actions to address the concerns raised in the report. A copy of the verbatim responses is included as an appendix to this report. I hereby approve the audit report.

4. CAISO should submit its implementation plan to comply with the recommendations within 30 days of this letter order. CAISO should make quarterly submissions to DAA describing the progress made to comply with the recommendations, including the completion date for each corrective action. As directed by the audit report, these submissions should be made no later than 30 days after the end of each calendar quarter, beginning with the first quarter after this audit report is issued, and continuing until all the corrective actions are completed.
5. The Commission delegated the authority to act on this matter to the Director of OE under 18 C.F.R. § 375.311. This letter order constitutes final agency action. CAISO may file a request for rehearing with the Commission within 30 days of the date of this order under 18 C.F.R. § 385.713.
6. This letter order is without prejudice to the Commission's right to require hereafter any adjustments it may consider proper from additional information that may come to its attention. In addition, any instance of non-compliance not addressed herein or that may occur in the future may also be subject to investigation and appropriate remedies.
7. I appreciate the courtesies extended to the auditors. If you have any questions, please contact Mr. Steven D. Hunt, Acting Director and Chief Accountant, Division of Audits and Accounting at (202) 502-6084.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry B. Parkinson", followed by a horizontal line extending to the right.

Larry B. Parkinson  
Director  
Office of Enforcement

Enclosure



**Federal Energy Regulatory Commission  
Office of Enforcement  
Division of Audits and Accounting**

**AUDIT REPORT**

**Audit of the California Independent  
System Operator for OATT Compliance,  
Independence, and Compliance with the  
Commission's Accounting and FERC  
Form No. 1 and 3-Q Reporting  
Requirements**

Docket No. PA17-3-000  
September 14, 2018



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## I. Executive Summary

### A. Overview

The Division of Audits and Accounting (DAA) within the Office of Enforcement of the Federal Energy Regulatory Commission (Commission or FERC) has completed an audit of California Independent System Operator Corporation (CAISO). The audit evaluated: (1) CAISO's compliance with certain responsibilities under its FERC Electric Tariff (OATT), business practices, corporate bylaws, policies, and codes of conduct related to its market-administration and transmission-provider obligations; (2) CAISO's governance structure and the independence of its operations from market participants; (3) the independence and effectiveness of its market monitoring and oversight activities under Appendices O and P of the OATT and FERC Order No. 719; (4) transmission planning under FERC Order No. 1000;<sup>1</sup> (5) compliance with Commission accounting regulations under the Uniform System of Accounts in 18 C.F.R. Part 101; and (6) compliance with FERC financial reporting requirements under 18 C.F.R. Part 141. The audit covered the period January 1, 2014 to the March 2, 2018.

### B. California ISO Corporation

As a public utility under the Federal Power Act, CAISO is subject to most, though not all, of the Commission's requirements for public utilities, including compliance with the Commission's accounting regulations under the Uniform System of Accounts in 18 C.F.R. Part 101 and with its financial reporting requirements under 18 C.F.R. Part 141.<sup>2</sup> As a Commission-approved independent system operator, CAISO must comply with its OATT, including the transmission planning requirements specified in Order No. 1000. CAISO's approved independent market monitor, the Department of Market Monitoring (DMM), must demonstrate its independence from market participants and from the rest of CAISO, as clarified under FERC Order No. 719, and carry out, in an

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<sup>1</sup> *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, FERC Stats. & Regs. ¶ 31,323 (2011), *order on reh'g*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh'g and clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff'd sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014).

<sup>2</sup> For example, CAISO's status as an Independent System Operator and the nature of the markets which it operates necessitate a waiver of requirements set out in Order No. 676 related to OASIS and business practices. For similar reasons, the Commission has also waived CAISO's Standards of Conduct requirements that are otherwise applicable to public utilities.

independent and effective manner, the monitoring and oversight activities under OATT Appendix P, *CAISO Department of Market Monitoring*.

CAISO's mission is to operate the grid within its footprint reliably and efficiently, provide fair and open transmission access, promote environmental stewardship, facilitate effective markets, and promote infrastructure development. Its current strategic objectives are to lead the transition to renewable energy, maintain reliability during industry transformation, and expand regional collaboration to unlock mutual benefits (to be achieved primarily through development of its Energy Imbalance Market (EIM)).

### **C. Summary of Compliance Findings and Other Matter**

Audit staff's five compliance findings and one Other Matter are summarized below and detailed in Sections IV and V, respectively, of this report.

#### **Findings**

1. *Independence of the Department of Market Monitoring* – CAISO did not have adequate structures in place to ensure sufficient independence of the market monitoring functions of the DMM from the influence of CAISO's senior management. Specifically, CAISO executives were too closely involved in the DMM Director's performance review and compensation, DMM staff incentive compensation awards, DMM staffing issues, and approval of the DMM budget.
2. *Physical Separation of the DMM* – CAISO relocated some staff closer in physical proximity to the DMM, creating a spatial lack of separation between the DMM and CAISO staff performing functions over which the DMM has oversight responsibility. The lack of separation threatens confidentiality, which could compromise the independence of the DMM.
3. *DMM Involvement in CAISO OATT Formation* – By filing joint comments with CAISO, the DMM did not adequately ensure its independence in advising all interested parties of its views regarding CAISO's proposed OATT and market rule changes. This is particularly problematic when its views differed from those of CAISO. Had the DMM independently advised the Commission, the CAISO, and other interested entities of its views regarding any needed rule and tariff changes, it would have improved the clarity of DMM's position and better demonstrated its independence from CAISO, both of which are critical in its role of advising the Commission.
4. *Testing Ancillary Service Providers* – CAISO did not conduct the range and frequency of testing and auditing required by the CAISO OATT to verify, within



reasonable timeframes, that generators paid to provide ancillary services were capable of providing the services.

5. *Assuring the Accuracy of Data Submitted to CAISO* – CAISO did not have sufficient controls to ensure certain data submitted by market participants were accurate and could be relied on by CAISO when performing its responsibilities under the OATT.

#### **Other Matter**

1. *CAISO Internal Audit Function* – CAISO Internal Audit (IA) could strengthen its level of independence and enhance its staffing with expertise in the critical areas of CAISO's operations and markets to facilitate its role in providing adequate assurance of CAISO's compliance to its OATT.

#### **D. Summary of Recommendations**

Audit staff's recommendations to remedy this report's findings are summarized below and detailed in Sections IV and V.

##### *Independence of the Department of Market Monitoring*

1. Involve the Oversight Committee when reviewing the performance of the DMM and the DMM Director.
2. Separate the awarding of incentive compensation to DMM staff from approval by CAISO and from measurement by performance of tasks in areas other than DMM-specific objectives and goals.
3. Grant the Oversight Committee the authority to review and approve the DMM budget, subject only to overall budget approval by the CAISO Board.

##### *Physical Separation of the DMM*

4. Provide the DMM Director adequate notice of, and involvement in, the process by which CAISO evaluates relocation of CAISO staff, particularly adjacent to DMM staff, so that the Director may raise his concerns on the independence of the DMM.
5. Ensure the DMM Director has the opportunity to bring any unresolved concerns on matters of potential impacts of staff relocation, and other issues of inadequacies in physical separation before the DMM Oversight Committee, who will have the authority itself to address, or bring them to the full Board to



address, regarding actions sufficient to ensure independence around the DMM workspace.

*DMM Involvement in CAISO OATT Formation*

6. Facilitate and encourage the DMM to (i) continue its advisory participation in internal committees involved in issues with significant market impact, (ii) articulate its independent views when there is a Commission filing by CAISO with market implications, particularly when they diverge from those of the CAISO, and (iii) use DMM's own legal representation, as necessary, in making such filings.

*Testing Ancillary Service Providers*

7. Conduct ancillary service testing and auditing, by the means specified in its OATT.
8. Enhance controls to ensure CAISO conducts ancillary service testing and auditing within reasonable timeframes.

*Assuring the Accuracy of Data Submitted to CAISO*

9. Continue to conduct risk analyses to identify where inaccurate, incomplete, or untimely submissions of data by market participants to the CAISO may threaten CAISO's ability to ensure reliability and/or proper market functioning.
10. Use CAISO's internal audit function to evaluate CAISO's effectiveness in addressing these risk areas under the direction of the Audit Committee.

*Other Matter: CAISO Internal Audit Function*

Audit staff suggests that CAISO consider:

1. Having the Audit Committee assess the performance and remuneration of the Director of Internal Audit.
2. Removing compensation metrics that might conflict with IA's objective of detecting noncompliance during the audit process.
3. Adding staff or supplementing the necessary skills in operational areas to empower IA in performing the full range of audits necessary to provide adequate assurance of CAISO's compliance to its OATT.

**E. Compliance with Implementation of Recommendations**

Audit staff further recommends that CAISO submit for review:

- Plans for implementing audit staff's recommendations within 30 days after the issuance of this report.
- Quarterly reports to DAA describing CAISO's progress in completing each corrective action. CAISO should make these nonpublic quarterly filings no later than 30 days after the end of each calendar quarter, beginning with the first quarter after the Commission issues this report, and continuing until it completes all recommended actions.
- Copies of written policies and procedures developed in response to the recommendations. These documents should be submitted for audit staff's review in the first nonpublic quarterly filing after CAISO completes them.

## II. Background

### A. Order No. 719

In 2008, the Commission issued Order No. 719, which instituted reforms to enhance market monitoring function, thereby improving the performance and transparency of organized markets, ensuring the independence of the Market Monitoring Unit (MMU), and expanding its information-sharing function.<sup>3</sup> These reforms are codified under 18 C.F.R. § 35.28 and, in general, require that MMUs: (1) have access to market data and the tools necessary to analyze them; (2) report to the RTO/ISO Board of Directors (Board) or a committee of the Board rather than management; (3) perform three specified core functions; (4) not participate in the administration of the RTO/ISO OATT (with certain specified exceptions), yet keep the Commission apprised of its position on any OATT revisions that have impacts on the markets it oversees; (5) follow certain protocols regarding referrals to the Commission of suspected violations or perceived market design flaws and independently recommend OATT changes as necessary; and (6) follow certain minimum ethics standards.

The Commission has taken steps to enhance the independence of the MMUs, but has not mandated any one structure for the MMU function (i.e., internal, external, or hybrid). Rather, the Commission allowed each RTO/ISO to choose its own MMU structural relationship, noting that “[r]egional variances and preferences in this regard should be respected.”<sup>4</sup> However, Order No. 719 made certain distinctions, depending on the particular MMU structure, as to various duties and responsibilities, including reporting to a Board of Directors and conducting mitigation.

Order No. 719 also prohibited MMUs from the administration of the RTO/ISO OATT, with the exception that an internal MMU in a hybrid structure may conduct mitigation as long as the external market monitor is charged with reviewing the mitigation conducted by the internal MMU. Regardless of whether the MMU uses a hybrid structure, Order No. 719 also specified that the MMU may conduct retrospective, but not prospective, mitigation on a going-forward basis.

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<sup>3</sup> *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, FERC Stats. & Regs. ¶ 31,281, at P 354 (2008), *order on reh’g*, Order No. 719-A, FERC Stats. & Regs. ¶ 31,292 (2009), *order on reh’g*, Order No. 719-B, 129 FERC ¶ 61,252 (2009).

<sup>4</sup> *Id.* P 326.



## **B. Internal Market Monitor**

Managed by a Director who reports directly to the DMM Oversight Committee (Oversight Committee), CAISO's DMM is a Commission-approved internal market monitoring function.<sup>5</sup> Removal of the DMM Director would require approval from the Oversight Committee and CAISO Board of Governors (CAISO Board). The DMM opines on specific items as requested and also interacts regularly with the Commission's Office of Enforcement as well as the Office of Energy Market Regulation (OEMR).

The stated mission of the DMM, as reflected in Appendix P to the OATT is "[t]o provide independent oversight and analysis of the CAISO Markets for the protection of consumers and Market Participants by the identification and reporting of market design flaws, potential market rule violations, and market power abuses."<sup>6</sup>

At the start of the audit, the DMM consisted of a Director and 13 staff, in two branches with two advisors/technical assistants reporting directly to the Director. The two branches are: Monitoring and Reporting (consisting of a manager, with a staff of 5 reports) and Analysis and Mitigation (consisting of a manager, with a staff of 4 reports). The Monitoring and Reporting branch conducts day-to-day market monitoring activities, and reviews the DMM surveillance metrics and screens for any signs of noncompliance with market rules. The Analysis and Mitigation branch investigates any possible noncompliance or market manipulation identified by the Monitoring and Reporting branch, assists the CAISO in developing mitigation measures, reviews mitigated offers, and identifies potential market design flaws. There is also a Senior Advisor–Market Monitoring Applications, who develops screening software and other compliance tools, and a Technical Assistant responsible for IT links to the CAISO databases that provide information on market participant behavior. The DMM is responsible for the Annual State of the Market report and additional reports and analyses of specific concerns that may impact the efficiency and effectiveness of the market, and suggesting potential actions to address these concerns.

DMM monitors and reviews the ISO's mitigation of market participants' offers. This is accomplished by providing an independent review of the reasonableness of the data required to be supplied by market participants and stored in CAISO's Enterprise Data Repository (EDR). DMM then replicates the CAISO's methodology to apply this data in its process to mitigate offers.

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<sup>5</sup> The Director began reporting directly to the Oversight Committee in March 2017. Prior to that time, and at the start of the audit, the Director reported directly to CAISO's President and Chief Executive Officer for administrative purposes.

<sup>6</sup> CAISO, CAISO eTariff, Appendix P, CAISO Department of Market Monitoring (5.0.0), § 1.2.

DMM employees must abide by the CAISO Standards of Conduct and follow specific guidelines for relationships with CAISO staff and market participants. DMM's primary interaction with market participants is through CAISO's stakeholder process. Market participants can report market issues to the DMM through CAISO's Customer Inquiry Dispute and Information (CIDI) tool, the DMM's email inbox, or U.S. mail. DMM staff have formal ways to voice concerns, such as the CAISO compliance line, discussions with the Oversight Committee, regular interaction with Commission staff, and the FERC Hotline.

In compliance with Order No. 719, the DMM reported its concerns directly to the Board and, during the audit, further strengthened its independence and compliance through the Oversight Committee. Details of this change are included in Section IV, Finding No. 1.

As of March 2017, the DMM Director began reporting directly to the Oversight Committee on at least a quarterly basis. Quarterly discussions revolve around recent DMM activities, relevant OATT and market protocol revision requests, staffing, and any concerns regarding DMM's ability to execute its responsibilities and maintain independence. For administrative purposes during much of the audit period, the DMM reported to CAISO's President and Chief Executive Officer (CEO). According to its internal documents, administrative reporting during the audit period included requests to initiate employment processes (e.g., posting positions, salary adjustments, and training in enterprise-wide initiatives, such as cyber security policies and procedures awareness) and organizational reviews. However, as discussed more fully in Section IV, Finding No. 1, audit staff initially expressed concerns regarding the involvement of the CEO in some tasks, but which CAISO subsequently addressed during the audit by moving these tasks under the umbrella of the Oversight Committee. Audit staff no longer has concerns in this area.

## **C. CAISO Budget Process**

### **Overview**

The CAISO's annual budget is CAISO's revenue requirement, recovered through the Grid Management Charge. It is composed of five elements: (1) operations and maintenance (O&M), (2) debt service, (3) cash funded capital, (4) other costs and revenues, and (5) operating costs reserve adjustment. The CAISO produces a *Budget and Grid Management Charge Rates Book* that explains in detail how the components of the budget are developed.<sup>7</sup> During site visits, CAISO described its budget process as "zero-

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<sup>7</sup> <https://www.caiso.com/informed/Pages/StakeholderProcesses/Budget-GridManagementCharge.aspx>



based” whereby all capital project funding needed to be justified. The time and effort CAISO spends on capital project funding occupies a significant portion of the budget process, which emphasizes the importance of the component in establishing CAISO’s agenda for the coming year.

## **Components**

Operating and maintenance (O&M) is the largest budget component and consists of costs for ongoing operations such as personnel, telecommunications, software maintenance, and travel. The O&M component is managed and allocated at the cost center level.

Debt service costs consist of principal and interest payments of the 2013 bonds for the construction of CAISO’s new headquarters in Folsom, CA, and collection of a related 25 percent debt service reserve.

Cash funded capital included in the revenue requirement is used to fund capital and non-capital projects. Capital projects are treated as assets on the balance sheet, and project spending is managed and allocated on a project-by project-basis. Project spending can, at times, stretch into successive years.

Other costs and revenues are offsets to the revenue requirement, and include interest income, billings for generator interconnection studies, forecast fees collected from intermittent resources, path operator fees for the California-Oregon Intertie, and the EIM administrative charge.

In any year, CAISO’s operating reserve account exceeds 15 percent of the prospective year’s O&M budget, excess funds reduce the revenue requirement for the following year. This is the operating reserve adjustment. Managers must justify the material line items in their groups based on their own analyses. The DMM is included as part of CAISO’s overall budget and it updates the CAISO Board each year on its budget and resource needs.

## **Capital Project Funding**

CAISO plans and prioritizes projects that will require capital funding in the next year, in conjunction with projects planned for the following year. The Program Management Office (PMO) in Information and Technology conducts the process in conjunction with other corporate planning activities, such as the strategic plan refresh, policy initiatives roadmap, and budget planning. The PMO compiles the master project list by mid-year, working with CAISO management. Projects are proposed based on



strategic initiatives, ongoing corporate goals, reliability, compliance, and regulatory requirements and are ranked on three general criteria: (1) strategic value, (2) business case, and (3) risk mitigation. Strategic initiative owners working with the PMO provide the initial ranking using input from internal project sponsors and stakeholders. Ranking meetings determine the master list of projects based on available capital funding. Then an initial master capital list is generated based on the forecasted capital funding and initial projects. Directors from all divisions review the list in four ranking meetings from July through October. The initial master capital list is published on CAISO's website for external transparency and comment. The Corporate Management Committee reviews and approves the master capital list and the CAISO Board reviews and approves the budget.

### **Staffing**

There is no formal process by which CAISO evaluates incremental staffing needs. CAISO's expectation is that management will continually evaluate staffing, technology and other resource mixes to ensure CAISO has adequate skills and resources as it evolves as an organization. Audit staff observed vacancies which can, if needed, be moved to other departments and filled. Management eliminates positions through consolidation, reducing redundancy, relocation or other reasons by working with the Human Resources department, which partners with the business units to conduct a thorough evaluation with the assistance of legal counsel. The Human Resources department has the responsibility for tracking and reporting headcount, and ensuring that any recruitment activity is validated against available headcount.

### **D. CAISO OATT Revision Process**

Revisions to the CAISO OATT are initially drafted by a CAISO team. Draft proposals undergo a public stakeholder process to receive stakeholder input and CAISO responds, as appropriate. More detailed proposals are developed through special meetings or CAISO's weekly Policy Review Committee meetings, which are designed to elicit CAISO executive management approval or direction on significant or controversial design issues. DMM can also provide recommendations in its quarterly and annual reports regarding proposed OATT changes. DMM provides the reports to CAISO staff and management, and specifically highlights recommendations to CAISO if it believes its concerns were not clearly articulated through prior communications and/or meetings.

Final proposals are developed by CAISO and presented at the monthly Executive Leadership Team meetings (ELT meetings) prior to going to the CAISO Board for approval. In the past, the DMM Director provided DMM's position at ELT meetings. In the spring of 2018, the DMM Director's routine attendance was revised through an internal procedure that limited attendance to instances in which he were invited. The DMM Director's feedback to the Board on matters previous provided jointly as part of

the ELT process, is now provided independently. The DMM Director believes this revised CAISO procedure is both more effective and promotes greater independence since this change allows the other participants in the ELT meetings the opportunity for more open communications in matters which do not impact the DMM's performance of its duties.

When CAISO files OATT revisions or changes to its market design, the Commission's expectation is that the DMM will provide its own independent advice.<sup>8</sup> Prior to the audit, DMM comments from other forums were incorporated into CAISO's filing by CAISO staff. However, as described further in Section IV, during the audit DMM recognized that articulating its position may require a separate filing to the Commission, and may also require an independent attorney's assistance. Consequently, to promote greater clarity in its involvement in CAISO's OATT formation, beginning in February 2017 DMM filed separate comments in CAISO OATT and market design filings before the Commission.

#### **E. Transmission Planning Under Order No. 1000**

CAISO implemented the required competitive elements of Order No. 1000 into an already open planning process and did not need to make substantial changes to increase the competitiveness of its existing process. CAISO uses its own staff to evaluate the bids submitted and solicits participant feedback to continually evaluate, refine and implement an increasingly efficient process, which has received broad acceptance. CAISO believes that its responsiveness to stakeholder input to improve the process since initial implementation has led to gains in participant trust and more efficient participation as evidenced through the improvement in the bids submitted over time. The only stakeholder complaint filed during the audit period, involved an issue related to the requirements of Order No. 1000 involved local transmission projects which had previously been deemed outside of CAISO's transmission planning process.

The table on the following page presents a summary of transmission projects approved through the competitive process outlined in section 24 of CAISO's OATT.

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<sup>8</sup> Order No. 719, FERC Stats. & Regs. ¶ 31,281 at P 357.



Project Name	Date	Type (E/R/P)	CAISO Cost Estimate \$000	Incumbent Flag	Winner Better	Key Elements	Number of Bids	Winning Bidder
Gates-Gregg [Transmission Line] Project	7/11/2013	R/E/P	\$ 129,500	Y	All	ROW FC	5	PG&E
Imperial Valley Policy Element *	11/6/2013	P	\$ 25,000	Y	All	ISD C CC	2	IID
Sycamore-Penasquito Project **	3/4/2014	R/P	\$ 111,000	Y	All	ISD ROW CC	4	SDG&E
Spring Substation	3/11/2015	R	\$ 22,000	Y	9	C LM	3	PG&E
Estrella Substation	3/11/2015	R	\$ 21,000	N	9	CC IC	4	NEET
Wheeler Ridge Junction Substation	3/11/2015	R	\$ 40,000	Y	10	LC LM	4	PG&E
Delaney-Colorado River Transmission Line	7/10/2015	E	\$ 300,000	N	4	CC	5	DCRT
Suncrest Reactive Power Project	1/6/2015	P	\$ 62,500	N	9	CC	2	NEET
Harry Allen-Eldorado 500 kV Transmission Line	1/11/2016	E	\$ 144,000	N	10	CC ISD ROW	3	DesertLink
* in 2014 only economic & policy-driven projects were considered but in 2015 forward reliability-driven could be considered					ROW = Rights of way ownership			
					FC = Financial Capability			
** Expedited Process due to time constraints,					ISD = In Service Date			
Cost estimate based on AC overhead line					C = Capital Cost			
					CC = Cost Containment			
Shaded Area pre-Audit Period					LC = Life Cycle Costs			
					LM = Local Maintenance/Response			
					IC = Interconnection Costs			

As this table indicates, CAISO processed nine transmission projects under the Order No. 1000 guidelines, seven of which occurred during the audit period. Of these seven, the cost containment element of the winning bidder was decisive in four (all of the projects driven by economic considerations, and 57 percent of the projects overall). In the three projects in which the incumbent was selected, one was a reliability project with a defined in-service date that drove the decision, and the other two were approved for their value over the life of the project through use of existing facilities and local maintenance for the project. Throughout the Order No. 1000 regime, for all projects over \$100 million, the only ones awarded to incumbents were when the incumbent was the best bidder in all of the evaluation criteria identified as key by CAISO. Therefore, audit staff concluded that the process does not appear to favor incumbents but does give due weight to the inherent advantages available to incumbents, and the degree to which these advantages have value to the project. The efficiency of the CAISO process allowed four reliability projects to be evaluated competitively, despite the time constraints involved in completing the projects.

## F. Generation Interconnection Queue

CAISO has a strategic goal, imposed by the California legislature, and implemented by the California Public Utilities Commission, of transitioning to alternative energy sources, for which interconnecting significant numbers of new alternative energy generators is key. CAISO has devoted significant time and effort to creating a process that facilitates such interconnections by non-traditional energy suppliers. The CAISO



interconnection process has a very high volume,<sup>9</sup> and has incrementally improved over time in response to stakeholder concerns. The first major initiative occurred during 2013-2014 and resulted in incremental changes to the process that led to the next phase, the Interconnection Process Enhancements of 2015.

Audit staff observed that current market conditions for electric power may be inhibiting the interconnection of new generation from energy suppliers. New developers have expressed concern that the low price of energy makes it difficult for them to obtain financing absent the assurance of a capacity payment. They believe that until and unless there is a California legislative mandate for this power (and the possibility for an associated capacity payment), there will be little effective demand for actual new energy interconnection construction.

Amid this environment, developers of alternative energy expressed that they are faced with difficult decisions and increased risks. Prevailing Commission-approved rules do not allow approved interconnection requests to be preserved indefinitely. A developer must meet development milestones to preserve its place in the queue, but if it enters into the construction phase too far in advance of anticipated California legislation it will be unable to cover its financing obligations until it can market capacity to the LSEs, which incurs significant lost revenues and adversely impacts the project's viability. But if it cancels the application it will lose its place in the interconnection queue and may face additional interconnection costs if construction occurs. This incentivizes developers to advocate that CAISO alter the rules regarding the management of its interconnection queue. CAISO, which still has concerns with legacy approved interconnection contracts, awarded when the rules did not require developers to meet specific deadlines in order to remain in the queue, does not support such changes, which, in their experience, would result in a reversion to more cumbersome and inefficient queue administration.

## **G. Impact of Southwest Power Pool (SPP RTO) Audit Report**

DAA recently audited the SPP RTO along with its internal market monitor and recommended specific actions to mitigate risk involving independence of the internal market monitor.<sup>10</sup> Audit staff found that CAISO's DMM Director and CAISO executive management were proactive in considering the SPP RTO audit recommendations for adoption at CAISO. During audit staff's first site visit, CAISO's General Counsel and Chief Compliance Officer (CCO) indicated draft recommendations to the CAISO Board to address the concerns raised in the SPP RTO report were in progress prior to the audit's commencement, demonstrating a willingness to adopt the SPP RTO audit report

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<sup>9</sup> CAISO processed 1,400 interconnection requests since introducing its enhanced system, 339 of which occurred during the audit.

<sup>10</sup> The SPP Audit Report was issued on July 15, 2016, under Docket No. PA15-6-000.

recommendations as they apply to CAISO even before the conclusion of this audit, based on similarities between SPP RTO's prior market monitoring structure and CAISO's current structure.

The draft recommendations were shared with audit staff before they were presented to the CAISO Board. Although audit staff acknowledged that notice was taken of, and actions were taken in response to, the SPP Audit Report, audit staff assessed whether these measures were adequate to ensure sufficient independence of the market monitoring functions of the DMM. CAISO's proposal envisioned the President and CEO exercising less oversight of DMM. Administrative and management oversight would shift from CAISO management to a Board Committee (either the existing Audit Committee or new Market Monitoring Committee). Ultimately, in early 2017 the new Oversight Committee of CAISO's Board was formed, composed of two Board members. A charter documenting oversight responsibilities for the Committee was adopted on March 17, 2017.

During the audit, audit staff recognized opportunities to enhance the independence and accountability of the DMM. Audit staff was concerned that the existing CAISO reporting and accountability structures could allow undue influence to be exercised in case of conflicts between the DMM and CAISO management through CAISO executives' role in the DMM Director's performance evaluation, staff incentive awards, and the DMM staffing and budget.



### III. Introduction

#### A. Objectives

The audit evaluated: (1) CAISO's compliance with certain responsibilities under its OATT, business practices, corporate bylaws, policies, and codes of conduct related to its market-administration and transmission-provider obligations; (2) CAISO's governance structure and the independence of its operations from market participants; (3) the independence and effectiveness of its market monitoring and oversight activities under Appendices O and P of the OATT and FERC Order No. 719; (4) transmission planning under FERC Order No. 1000;<sup>11</sup> (5) compliance with Commission accounting regulations under the Uniform System of Accounts in 18 C.F.R. Part 101; and (6) compliance with FERC financial reporting requirements under 18 C.F.R. Part 141. The audit covered the period January 1, 2014 through the March 2, 2018.

#### B. Scope and Methodology

Audit staff interviewed CAISO employees, including senior staff and subject-matter experts, during its review and analysis of CAISO operations and market activities, and did the same for DMM operations. DMM and CAISO employees were open and transparent, which greatly assisted audit staff's testing and evaluations.

To facilitate its compliance testing and evaluation, audit staff:

- Issued data requests to CAISO for organizational charts, internal audit reports, meeting records for CAISO's Board, committees and working groups, business protocols, budget development processes, FERC Form 1 filing procedures, and compliance program documentation.
- Made four site visits to CAISO headquarters in Folsom, CA, to discuss, observe, and evaluate underlying procedures, practices, and controls supporting compliance with Commission regulations and to understand CAISO's operations and DMM functions. These visits enabled audit staff to:
  - Discuss corporate structure, departmental functions, and employee responsibilities, and meet key company officials;

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<sup>11</sup> *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, FERC Stats. & Regs. ¶ 31,323 (2011), *order on reh'g*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh'g and clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff'd sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014).



- Learn about CAISO's system and day-to-day operations;
  - Tour CAISO's system control center and observe employees operating and maintaining system reliability;
  - Interview executives, managers, and operational employees about policies and procedures, and their application each day;
  - Review CAISO Board and Board-level Committee meeting minutes (including those held in Executive Session), as well as internal audit reports, for areas applicable to audit objectives; and
  - Discuss and observe the management and operation of CAISO's corporate regulatory compliance program.
- Conducted interviews and teleconferences with compliance staff, subject-matter experts, and senior managers to support audit staff's evaluation of compliance with Commission rules, regulations, and requirements.
  - Held regular teleconferences with CAISO employees on administrative and technical matters, and with DMM senior management regarding independence concerns and CAISO operational issues.
  - Spoke with members of OE's Division of Investigations, Office of Energy Market Regulation (OEMR), including two staff members from OEMR that participated as audit team members, and the Office of Energy Policy and Innovation about audit developments and potential compliance issues to ensure audit report findings were consistent with Commission precedent and policy.

**Department of Market Monitoring and Order No. 719**

Audit staff reviewed compliance with OATT Appendix P, CAISO Department of Market Monitoring (revised during the audit in response to feedback from audit staff). Appendix P reflects Order No. 719's requirements for independence, structure, tools, oversight, and information sharing. Specifically, audit staff reviewed:

- *DMM Daily Operations* – Audit staff discussed DMM's regularly-scheduled staff meetings, observed routine performance of screens, monitoring, and surveillance activities to ensure compliance with regulatory responsibilities under Appendix P of the Tariff, and applicable protocols, on-going studies, and analyses of current issues.
- *DMM Independence* – Audit staff evaluated the structure and screening tools of the DMM. In particular audit staff reviewed CAISO's development of its internal DMM; DMM's access to market data; resources and personnel to accomplish functions; unrestricted access to CAISO's market information databases; and exclusive control over any DMM-created data, including internal controls as well as control over data format and configuration. Further, audit staff reviewed the development of a data catalog, information system, catalog of CAISO market monitoring indices, and criteria for evaluation to investigate market power abuses and related causes with DMM to determine the level of independence maintained.
- *DMM Structure* – Audit staff reviewed DMM's current resources and staffing, and requests for access to resources, personnel, and internal/external consultants.
- *DMM Functions* – Audit staff reviewed how DMM accomplishes its chartered duties and functions, including evaluation of market rules, tariff provisions, and market design elements, such as identification of potential flaws in the structure of CAISO markets related to market power, and recommendations of proposed rules and tariff changes to CAISO, the Commission, CPUC, and market participants. More specifically, audit staff evaluated DMM's efforts in these areas:
  - Studies performed to determine: 1) whether market participants hinder CAISO's ability to provide efficient and not unduly discriminatory transmission services, and 2) opportunities for efficiency improvement, market power abuses, and market design flaws.



- Reviewing and reporting on the performance of the wholesale market to CAISO, the Commission, and other interested parties, such as market participants.
  - Identification and notification of market participant or CAISO behavior in terms of suspected violations of tariff provisions, rules and regulations, or market manipulation to the Office of Enforcement.
  - Verification/screening of market participant data.
  - Complaints by market participants relevant to market monitoring function, and subsequent investigations by DMM and periodic reports to the CAISO CEO and CAISO Board under OATT Appendix P, section 5.4.
  - Advisory role of DMM to the Commission, CAISO or market participants in terms of needed rule and tariff changes. Also discussed how disagreements are handled in instances where the MMU disagrees with CAISO's filings for proposed tariff changes under OATT Appendix P, section 5.1.7.
- *DMM Tools* – Audit staff reviewed day-to-day monitoring activities, software tools (e.g., automated screens), and use of contract labor and outside advisers to supplement the DMM function.
  - *DMM Oversight* – Audit staff discussed DMM's routine reporting to the Oversight Committee, and reviewed documentation between both groups, such as internal communications and committee minutes.
  - *DMM Mitigation and Operations* – Audit staff discussed the procedures DMM used to monitor market participants' mitigated offers by replicating them with data stored in CAISO's Enterprise Data Repository. Audit staff also observed the screens and controls DMM used to monitor and review the CAISO process around mitigating market participants' offers.
  - *DMM Recommendations on Tariff Changes* – Audit staff reviewed DMM's policies and procedures for making recommendations on tariff changes. Audit staff discussed specific examples, such as ISO commitment cost enhancements, CRR Auction Efficiency Ranking, opportunity cost model, and convergence bidding.
  - *DMM Ethics* – Audit staff reviewed measures taken to ensure DMM employees comply with the requirements of Order No. 719 in these areas:

- (1) Professional or commercial affiliation with market participants;
- (2) Employees as officers/employees/partners of market participants;
- (3) Engagement in market transactions other than duties under the tariff;
- (4) Compensation for testimony or commercial services other than CAISO;
- (5) Financial interest in market participants;
- (6) Gifts in excess of \$25 from market participants; and
- (7) Notification to supervisor of employment interest with market participants and subsequent recusal in related matters.

Audit staff also reviewed training materials on CAISO's intranet, and discussed compliance with CAISO legal staff.

- *Performance Metrics* – Audit staff ascertained how DMM's efforts are tracked in relation to tasks performed in terms of bonuses and compensation on a DMM and overall CAISO corporate level.
- *DMM Information Sharing* – Audit staff reviewed the DMM's processes and procedures for tailored requests for information by state commissions, notification to affected market participant of request, and opportunity afforded to market participant to contest accuracy of data, and reporting on aggregate market performance. Audit staff also reviewed the nature and extent of information disseminated, and DMM's participation in conference calls with the Commission, CPUC, and CAISO.
- *Performance Metrics* – Audit staff reviewed DMM's performance measures to determine how its efforts are tracked in relation to tasks performed in terms of bonuses and compensation.
- *Commission Referrals* – Audit staff reviewed DMM's policies and procedures for initiating non-public referrals to OE for instances of suspected market violations, and referrals to OEMR for potential market design flaws possibly remedied by a rule/tariff change. Audit staff also reviewed processes and procedures to handle software errors and appropriate Commission noticing.

### **Open Access Transmission Tariff**

Audit staff reviewed controls to ensure compliance with the following OATT appendices:

- *Appendix B, Pro Forma Agreements*
- *Appendix E, Submitted Ancillary Services Data Verification*



- *Appendix O, CAISO Market Surveillance Committee*
- *Appendix P, CAISO Department of Market Monitoring*
- *Appendix S, Small Generator Interconnection Procedures*
- *Appendix U, Large Generator Interconnection Procedures*
- *Appendix Y, Generator Interconnection Procedures for Interconnection Requests*

Audit staff also examined:

- *CAISO Role in Validation of Market Participant Non-Bid Data Submissions* – Audit staff discussed with Internal Audit and reviewed its operational audits of the OATT during the audit period (with particular emphasis on compliance to Section 40 – *Resource Adequacy Demonstration for all SCs in the CAISO BAA* and Section 8.9 – *Verification, Compliance Testing, and Auditing*). In addition, audit staff met with CAISO SMEs from operations and control rooms and from senior management and DMM staff. Audit staff examined how CAISO reviews, validates, and otherwise oversees the data submitted by market participants to ensure its accuracy and completeness and the impacts that did, or might affect its ability to fulfill its obligations under the OATT (in particular under the *Pro Forma Participating Generator Agreement*, section Appendix B.2 and *Identification of Generating Units*, section 4.6.4). Finally, audit staff reviewed CAISO self-reports and other communications with OE regarding difficulties with market participant data submissions and efforts to resolve them.
- *Transmission Planning* – Audit staff reviewed CAISO's *Comprehensive Transmission Planning Process* (OATT, section 24), in particular the changes CAISO implemented to comply with Order No. 1000 and the results of the competitive elements upon procurement of transmission facilities during the audit period. Audit staff spoke with CAISO SMEs, reviewed planning documents, examined extracts from publicly submitted stakeholder comments, reviewed comments from market participants filed with FERC, reviewed responses to data requests, and analyzed Project Sponsor Selection Reports for all transmission facility procurements conducted under the Order No. 1000 transmission selection process.
- *Generation Interconnections* – Audit staff reviewed CAISO's *Interconnection of Generating Units and Facilities* (OATT, section 25), in particular CAISO's processing of its interconnection queue. Audit staff interviewed CAISO's SMEs and reviewed documentation of its generation interconnection process. Audit staff analyzed the historical record of the generation queue, and reviewed it for consistency with the documented process and prevailing OATT

milestones. Audit staff reviewed concerns raised by market participants and how those concerns were resolved. CAISO implemented a tracking system to ensure timely, accurate, and consistent responses. Finally, audit staff examined barriers to construction and interconnection of new generation resources, i.e., institutional constraints, OATT requirements, and prevailing market conditions.

- *OATT Revisions* – Audit staff interviewed SMEs regarding how CAISO proposes and submits OATT changes for FERC approval. Audit staff reviewed stakeholder feedback in its stakeholder comments tracking system, reviewed filings and interventions made to FERC, discussed the topic with the Director and staff of DMM, and reviewed responses to data requests. Audit staff's focus included the role of the DMM, the coordination between CAISO and FERC staff prior to the filing, and the transparency of the process in terms of publicly available forums in which all parties had equal access to monitor, participate, and provide comments on proposals.
- *Budget/Staffing* – Audit staff examined the budget and staffing for constraints that could limit CAISO's ability to perform its tasks. Audit staff met with CAISO SMEs and others and reviewed documentation to understand the limitations the self-imposed cap on the Grid Management Charge imposed, the efforts made by operating units to obtain staffing increases, and the hiring and retention process, the limitations caused by stakeholders, software considerations, the transparency with which activities were prioritized, the method of ranking and selecting non-mandatory activities, and the rationale for recent approval of expansion of full-time employees (FTEs).

### **Accounting Regulations under 18 C.F.R. Part 101**

Audit staff reviewed CAISO's compliance with Commission accounting regulations under 18 C.F.R. Part 101, specifically:

- *Accounting Processes and Procedures* – Audit staff reviewed CAISO's processes, procedures, internal audit reports, and quality controls to comply with Commission accounting regulations.
- *Accounting Applications* – Audit staff reviewed CAISO's chart of accounts to ensure consistency with that of the Commission. Audit staff also reviewed accounting practices and quality controls to ensure their application complied with Commission accounting regulations.
- *Account Classification* – Audit staff tested certain accounts reported in the FERC Form No. 1 and reviewed journal entries and data from CAISO's



accounting system to ensure compliance with Commission accounting regulations. Audit staff also reconciled amounts recorded in CAISO's books and records with those reported in its FERC Form No. 1.

- *Test Account Balances* – Audit staff reviewed FERC Form No. 1 account balances for accuracy, and supporting documents, including general ledger data, to ensure compliance with Commission accounting regulations.
- *Discussions with CAISO Accounting Staff* – Audit staff interviewed CAISO staff about processes and procedures to ensure compliance with Commission accounting regulations.
- *Internal Audit Financial Audits* – Audit staff reviewed financial audit reports issued by Internal Audit (IA) during the audit period. DAA's own audit of CAISO in 2012 (Docket No. PA11-16) identified weaknesses in monitoring conflicts of interest and in CAISO's corporate gift policies. As a result, IA conducts annual audits in these areas to ensure compliance with audit report recommendations. IA conducted audits of high-risk areas it identified and which were approved by the Audit Committee, including the use of corporate credit cards and direct billings, hiring and termination policies and practices, asset management (computer equipment and software), and fraud.

### **FERC Form 1 Reporting Requirements under Part 141**

Audit staff reviewed the accuracy and completeness of CAISO's reporting in the FERC Form No. 1 during the audit period, specifically:

- *FERC Form 1 Reporting Process and Procedures* – Audit staff reviewed CAISO's processes, procedures, and controls to comply with Commission financial reporting requirements under 18 C.F.R. Part 141. IA's related audit reports were also reviewed and discussed with its management.
- *Financial Reporting Instructions* – Audit staff reviewed CAISO's financial processes and procedures to ensure they are consistent with the general reporting instructions in the FERC Form 1. Specifically, audit staff evaluated whether CAISO complied with the instructions for select schedules and pages in the form.
- *Reported Financial Statement Account Balances* – Audit staff reconciled account balances in the FERC Form 1 to CAISO's general ledger. As part of this step, audit staff analyzed significant variances, investigated discrepancies, and obtained additional breakdown and support of any account data deemed

necessary. Further, audit staff reviewed notes to the financial statements for unusual and significant accounting events.

- *Reported Supporting Statement Amounts* – Audit staff reviewed account balances for select pages and evaluated supporting documentation to ensure they were accurate.

### **Internal Audit Function**

- *Internal Audit Operational Audits* – Audit staff met with the Director of IA and her operational-audit team lead during each site visit and reviewed documentation related to all operational audits during the audit period, specific findings, the level of cooperation during the audit process and resistance to adverse findings by the operational units being audited, improvements made to IA since the current Director was hired in 2010, and the skill sets required of IA staff to perform operational audits of CAISO.
- *IA Independence* – Audit staff questioned the IA and the Legal department about the willingness of the Audit Committee to assume a greater oversight role in assessing the IA Director's performance. The discussion included professional standards on the matter and a survey of oversight structures at other RTO/ISOs and similar entities. In addition, audit staff assessed any constraints IA may have experienced in developing its independent risk-assessment of CAISO, and in getting approval of the annual audit plan by the Audit Committee.
- *IA Staffing* – Audit staff interviewed the IA Director and reviewed staffing documents to assess the resources available and the ability of IA to conduct the high-risk audits desired by the Audit Committee, and accommodate the increasing number of follow-up audits to assess implementation of recommendations.



## IV. Findings

### 1. Independence of the Department of Market Monitoring

CAISO did not have adequate structures in place to ensure sufficient independence of the market monitoring functions of the DMM from the influence of CAISO's senior management. Specifically, CAISO executives were too closely involved in the DMM Director's performance review and compensation, DMM staff incentive compensation awards, DMM staffing issues, and approval of the DMM budget.

#### Pertinent Guidance

- 18 C.F.R. § 35.28(g)(3)(i)(D), Market Monitoring Policies, states:

The Market Monitoring Unit must report to the Commission-approved independent system operator's or regional transmission organization's board of directors, with its management members removed, or to an independent committee of the Commission-approved independent system operator's or regional transmission organization's board of directors. A Commission-approved independent system operator or regional transmission organization that has both an internal Market Monitoring Unit and an external Market Monitoring Unit may permit the internal Market Monitoring Unit to report to management and the external Market Monitoring Unit to report to the Commission-approved independent system operator's or regional transmission organization's board of directors with its management members removed, or to an independent committee of the Commission-approved independent system operator or regional transmission organization board of directors. If the internal market monitor is responsible for carrying out any or all of the core Market Monitoring Unit functions identified in paragraph (g)(3)(ii) of this section, the internal market monitor must report to the independent system operator's or regional transmission organization's board of directors.<sup>12</sup>

- OATT Appendix P, CAISO Department of Market Monitoring, section 3 Independence and Oversight, stated:

DMM shall report to the CAISO Governing Board on all matters pertaining to the core monitoring duties specified under Section 5 of this Appendix P, and shall have direct access to the individual CAISO Governing Board members at any time. DMM shall report to the CAISO CEO or his or her

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<sup>12</sup> See also Order No. 719, FERC Stats. & Regs. ¶ 31,281 P 313.

designee for administrative purposes, including matters relating to the internal administration of DMM. DMM shall advise the CAISO Governing Board about DMM's independent analysis of the CAISO's markets and its independent identification of market design flaws and market power abuses, and DMM also shall inform CAISO management about such matters.<sup>13</sup>

## Background

Order No. 719 proposed a balanced and flexible approach to ensure the independence of market monitors that included oversight protection, OATT safeguards and tools, the elimination of conflicts of interest, and changes in MMU functions to achieve independence and accountability.<sup>14</sup> To effectively carry out its responsibilities as a market monitor, the market monitor must be independent in appearance and practice from any undue influence from market participants and from CAISO's senior management. CAISO elected to establish an internal market monitor (the DMM), which creates inherent risks as CAISO senior executives have an opportunity to exercise undue influence on the DMM unless proper structures and controls are in place to effectively mitigate these risks. The reforms of Order No. 719, *et al*, were instituted, "precisely to bolster the independence of the MMU performing the core MMU functions."<sup>15</sup>

### *CAISO Involvement in the DMM Director's Annual Performance Review and Compensation during the Audit Period*

Prior to the commencement of the audit, the DMM Director's annual performance review had been conducted directly by CAISO's CEO, who also determined the DMM Director's yearly merit increase and incentive compensation award. Having the CEO exercise this responsibility threatened the independence of DMM's operations as an internal market monitor. There are inherent risks associated with such an arrangement, such as the independent analysis of the CAISO's markets and the independent identification of market design flaws and market power abuses by DMM. Therefore, audit staff believes an impartial party should review the DMM Director's performance and award any incentive compensation.

With the establishment of the Oversight Committee, CAISO removed the administration and operational oversight of DMM from CAISO executives. The Oversight Committee will advise the CAISO Board on DMM's performance of its core market monitoring functions as defined in 18 C.F.R. § 35.28 and Appendix P, section 5,

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<sup>13</sup> CAISO, CAISO eTariff, Appendix P, Department of Market Monitoring, (5.0.0), § 3, Independence and Oversight.

<sup>14</sup> Order No. 719, 125 FERC ¶ 61,071 at P 317.

<sup>15</sup> Order No. 719-A, 128 FERC ¶ 61,059 at P 141.



of CAISO's OATT. In 2017, the Oversight Committee assumed the duties previously performed by the CEO regarding approval and oversight of the DMM Director's annual recommendations for DMM staff compensation decisions.

As part of its oversight of DMM, the Oversight Committee established annual DMM departmental performance goals and metrics against which to evaluate DMM performance when determining annual incentive compensation for the DMM Director and staff. Having a separate set of performance standards for the DMM Director and his or her staff from those of other CAISO business units enhances separation because one of CAISO's enterprise-wide corporate goals is reduced compliance violations. If CAISO's operational staff identifies an OATT-related noncompliance issue on its own initiative, there is no impact on its corporate goal of fewer compliance violations. However, if DMM identifies noncompliance, there is an adverse impact on the corporate goal. Therefore, there were conflicts of interest inherent in the compensation mechanisms that existed for the DMM during the audit period.

Under the new arrangement, the DMM Director presents a record of the accomplishments for the year to the Oversight Committee and proposes modifications of the performance goals and metrics should priorities change. This arrangement further enhances the required independence and separation of functions between CAISO and DMM.

The Oversight Committee, in light of its lack of daily exposure to the DMM's leadership, may choose to delegate responsibility for day-to-day administrative tasks, such as approval of time sheets and expense reports, and the granting of physical and cyber access, to CAISO management. It can also request input from CAISO management related to the DMM's performance, but must retain sole authority for decision making.

#### *CAISO Involvement with Incentive Compensation Awards for DMM Staff*

During the audit period, DMM staff's incentive compensation was determined using the same guidelines and procedures as for all other CAISO staff. An employee's award was based on individual performance plus CAISO's corporate score, derived from a metrics driven scorecard. The final value for each individual is discretionary and subject to management review. Audit staff believes the current practice lacks independence between CAISO and DMM and there exists the inherent risk of undue influence by CAISO over DMM staff because of the internal market monitor. Factoring in the corporate score could have deterred DMM staff from reporting CAISO market behaviors at the risk of jeopardizing his/her incentive award.

The Oversight Committee will assume final review authority over incentive compensation awards for DMM staff and other compensation matters to ensure



independence from CAISO. It will establish annual DMM departmental performance goals and metrics and evaluate performance against those goals and metrics. DMM's score, as determined by the Oversight Committee, will replace the CAISO corporate score when determining incentive compensation for DMM employees. Finally, and consistent with DMM's status as an internal market monitoring unit, the Oversight Committee will oversee the DMM Director and staff's compliance with internal CAISO policies generally applicable to all other CAISO employees.

#### *CAISO Involvement with DMM Staffing Issues*

During the audit period, CAISO treated DMM as any other business unit in terms of staffing and human resource matters during the audit period. CAISO management and the CEO maintained final decision authority over DMM staff's salary increases, discipline and the creation of new positions, except for those relating to the DMM Director. The CAISO OATT requires CAISO Board approval to terminate the DMM Director's employment. Audit staff believes CAISO should not have oversight authority over DMM's staffing. That arrangement raised concerns about the independence of the market monitoring function both in appearance and practice.

Since 2017, and in response to DAA's concern, all staffing issues have been handled by the Oversight Committee instead of CAISO's management. The Oversight Committee provides approval and oversight on DMM staffing decisions made by the DMM Director (e.g., hiring, staffing levels, promotions, discipline, and terminations), which audit staff believes will alleviate independence concerns related to the performance of the market monitoring function.

#### *CAISO Involvement with the DMM Budget*

During the audit period, the DMM's budget was set as part of the CAISO corporate budget process during the audit period. DMM submitted its proposed budget to CAISO management for inclusion in the larger corporate budget ultimately approved by the CAISO Board. DMM's budget is and will continue to be funded by the same fee as is CAISO's, i.e., the Grid Management Charge (GMC). The GMC is collected from scheduling coordinators to cover the cost of CAISO's overall operations. Integrating DMM's budgetary requests into CAISO's budget not only threatens DMM's independence but could suggest undue influence by certain members of CAISO's management. Audit staff believed changes were necessary to ensure separation between the DMM's budget and approval process and that of CAISO's. However, audit staff recognizes that while a separately created "standalone" budget for the DMM should eliminate independence and separation concerns, the funding for the two budgets will still originate from the same source, an unavoidable byproduct of having an internal market monitoring function.



The Oversight Committee assumed oversight of DMM's budget in 2017 and will review and approve DMM's annual departmental operations and maintenance budget as included in CAISO's annual budget the CAISO Board considers for adoption. Audit staff believes having the Oversight Committee approve the DMM budget, rather than CAISO management, provides an appropriate level of independence. Additionally, audit staff notes that coordinating budgetary requirements between DMM and CAISO may also help minimize redundancies and ensure all efficiencies are considered.

### **Recommendations**

We recommend CAISO:

1. Involve the Oversight Committee when reviewing the performance of the DMM and the DMM Director.
2. Separate the awarding of incentive compensation to DMM staff from approval by CAISO and from measurement by performance of tasks in areas other than DMM-specific objectives and goals.
3. Grant the Oversight Committee the authority to review and approve the DMM budget, subject only to overall budget approval by the CAISO Board.

### **Corrective Actions Taken During the Audit**

CAISO made significant changes during the audit to reflect areas recommended by audit staff in the SPP Audit Report regarding independence and separation of functions. The CAISO Board approved the formation of a new Oversight Committee, with its charter finalized and approved on March 17, 2017, to assume the management and administration of DMM. Responsibilities and administration of the Oversight Committee include:

- Advising the CAISO Board on DMM's performance of its core market monitoring functions, as defined in 18 C.F.R. § 35.28 and Appendix P, section 5, of CAISO's OATT;
- DMM personnel issues and performance reviews;
- DMM's relationship with CAISO; and
- Budget and legal support oversight.

Subsequent to the formation of the Oversight Committee, CAISO amended its OATT Appendix P, CAISO Department of Market Monitoring, section 3.1 Independence and Oversight, on April 1, 2017 to state:

Department of Market Monitoring DMM shall report to the CAISO Governing Board on all matters pertaining to the core monitoring duties specified under Section 5 of this Appendix P, and for administrative purposes, including matters relating to the internal administration of DMM. DMM shall have direct access to the individual CAISO Governing Board members at any time. DMM shall advise the CAISO Governing Board about DMM's independent analysis of the CAISO's markets and its independent identification of market design flaws and market power abuses, and DMM also shall inform CAISO management about such matters.<sup>16</sup>

Based on these actions CAISO has fully implemented Recommendation Nos. 1, 2, and 3.

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<sup>16</sup> CAISO, CAISO eTariff, Appendix P, Department of Market Monitoring, (5.0.0), § 3, Independence and Oversight.



## 2. Physical Separation of the DMM

CAISO relocated some staff closer in physical proximity to the DMM, creating a spatial lack of separation between the DMM and CAISO staff performing functions over which the DMM has oversight responsibility. The lack of separation threatens confidentiality, which could compromise the independence of the DMM.

### Pertinent Guidance

- Order No. 719 states in part:

We adopt the NOPR proposal retaining the confidentiality of MMU referrals to the Commission, as well as the confidentiality of any investigations that result from such referrals.<sup>17</sup>

- OATT Appendix P, CAISO Department of Market Monitoring, at section 5.4, Duties of a Market Monitor, states in part:

DMM shall consider any information or complaint a Market Participant may make concerning any matter that it believes may be relevant to DMM's monitoring responsibilities. Such submissions or complaints may be made on a confidential basis in which case DMM shall preserve the confidentiality thereof.<sup>18</sup>

### Background

CAISO maintains a designated workspace for the DMM on the same floor as employees performing CAISO functions. Configuration of the shared space consists of closely situated cubicles in which most DMM employees work to foster efficiency and positive working relationships. Some DMM employees have private office space while most work in cubicles. DMM also has access to its own dedicated conference room. Access to DMM's work area is open to all CAISO employees.

Audit staff observed that conversations can be overheard and sensitive materials visible to parties outside the DMM and believes this configuration does not reflect adequate sensitivity to confidentiality. This is especially important given the recent unilateral relocation of CAISO staff that created physical proximity of CAISO employees performing functions over which the DMM has oversight responsibility and for which it may be evaluating for compliance. Audit staff understands that the DMM Director was not consulted by CAISO management prior to the initial decision to make the relocation.

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<sup>17</sup> Order No. 719, FERC Stats. & Regs. ¶ 31,281 at P 465.

<sup>18</sup> *Id.* § 5.4.

Audit staff is concerned since conversations between DMM staff could entail discussions of the very functions being performed by the adjacent CAISO staff that involve ongoing investigations, sensitive materials, and potential referrals to the Commission. Previously, the concern was mitigated in part by a space created by empty cubicles between the DMM and other CAISO staff and the fact that adjacent CAISO staff were not involved in matters over which the DMM monitored compliance. However, during the audit period, CAISO relocated the Market and Infrastructure Policy department to the fourth floor immediately adjacent to the DMM's space. These CAISO employees are involved in functions over which the DMM has compliance oversight, yet the plans were made without prior consultation with the Director of DMM. The relocation removed the previous mitigating factors that provided adequate separation and was done without prior consultation with the DMM Director.

The DMM Director explained to audit staff that, prior to and following relocation of the Market and Infrastructure Policy department to the fourth floor, DMM staff discussed and reviewed policies and measures to address and mitigate any concerns about maintaining confidentiality of DMM work materials and discussions. These measures include heightening the awareness of not leaving sensitive material unprotected and holding confidential conversations involving CAISO in secure spaces, such as the dedicated conference room. The DMM Director also took steps to ensure that DMM's dedicated conference room remains exclusively for use by DMM. The DMM Director acknowledged denying several requests from other business units to allow them to reserve the room in advance when they could not find another room at CAISO. The DMM Director and his senior staff believe that such measures appear to be currently effective, but are monitoring the situation to ensure the adequacy of the mitigation measures going forward.

Audit staff notes that the physical separation of MMU staff, which may include certain controls such as physical barriers and key card access, is necessary for the confidentiality and independence of the DMM. Audit staff believes that deference needs be given to the DMM Director on the matter on a going-forward basis in order to ensure adequate confidentiality and independence. Audit staff therefore recommends the DMM Director continue to monitor the situation for conditions requiring a greater degree of separation from the relocated CAISO staff. If such conditions arise, CAISO should implement the appropriate physical security measures as requested by the DMM Director to enhance the DMM's ability to meet its obligation to protect and preserve the confidentiality of all information within its market monitoring operations.



**Recommendations**

We recommend CAISO:

4. Provide the DMM Director adequate notice of, and involvement in, the process by which CAISO evaluates relocation of CAISO staff, particularly adjacent to DMM staff, so that the Director may raise his concerns on the independence of the DMM.
5. Ensure the DMM Director has the opportunity to bring any unresolved concerns on matters of potential impacts of staff relocation, and other issues of inadequacies in physical separation before the DMM Oversight Committee, who will have the authority to itself address, or bring them to the full Board to address, regarding actions sufficient to ensure independence around the DMM workspace.

**Corrective Actions Taken During the Audit**

Audit staff understands the DMM Director spoke to the Oversight Committee about this matter and that the Committee is now aware of the need for adequate physical separation to ensure the independence of the DMM. The DMM Director has also received assurance that, if problems in this area arise in the future, the matter will be addressed appropriately by the Oversight Committee and, if necessary the CAISO Board. During the implementation phase, audit staff expects that CAISO and the DMM will supplement these discussions with a written Board-approved procedure to document the implementation of the recommendations.

### 3. DMM Involvement in CAISO OATT Formation

By filing joint comments with CAISO, the DMM did not adequately ensure its independence in advising all interested parties of its views regarding CAISO's proposed OATT and market rule changes. This was particularly problematic when the DMM's views differed from those of CAISO and led to reductions in the clarity of DMM's position and less independence from CAISO.

#### Pertinent Guidance

- 18 C.F.R. § 35.28(g)(3)(ii), Core Functions of Market Monitoring Unit, states:

The Market Monitoring Unit must perform the following core functions:

(A) Evaluate existing and proposed market rules, tariff provisions and market design elements and recommend proposed rule and tariff changes to the Commission-approved independent system operator or regional transmission organization, to the Commission's Office of Energy Market Regulation staff and to other interested entities such as state commissions and market participants, provided that:

(1) The Market Monitoring Unit is not to effectuate its proposed market design itself, and

(2) The Market Monitoring Unit must limit distribution of its identifications and recommendations to the independent system operator or regional transmission organization and to Commission staff in the event it believes broader dissemination could lead to exploitation, with an explanation of why further dissemination should be avoided at that time.

(B) Review and report on the performance of the wholesale markets to the Commission-approved independent system operator or regional transmission organization, the Commission, and other interested entities such as state commissions and market participants, on at least a quarterly basis and submit a more comprehensive annual state of the market report. The Market Monitoring Unit may issue additional reports as necessary.

(C) Identify and notify the Commission's Office of Enforcement staff of instances in which a market participant's or the Commission-approved independent system operator's or regional transmission organization's behavior may require investigation, including, but not limited to, suspected Market Violations.



- In Order No. 719, the Commission stated:

We agree that the MMU's role in recommending proposed rule and tariff changes is advisory in nature...Both the filing of proposed rule and tariff changes, and the implementation of rule and tariff changes, are within the purview of the RTO or ISO. However, we do expect the MMU to advise the Commission, the RTO or ISO, and other interested entities of its views regarding any needed rule and tariff changes. Likewise, in the event an RTO or ISO files for a proposed tariff change with which the MMU disagrees, we expect the RTO or ISO to inform the Commission of that disagreement, although not necessarily to include a written MMU proposal with its filing.<sup>19</sup>

## Background

There are a number of ways DMM communicates its position on proposed OATT changes to CAISO's staff and management. At the onset, an internal CAISO team drafts most OATT changes and initiates a public stakeholder comment process. During most of the audit period, DMM routinely assigned a staff member to participate on CAISO's internal teams for initiatives that have a significant market impact (*e.g.*, Regulatory Strategy Advisory Committee, Policy and Technical Advisory Group, Market Issues Steering committee, Market Issues Subcommittee, and the Comprehensive Market Design Review process). However, the CAISO has initiated an internal procedure, which changes the invitation to the DMM staff to participate on these internal teams. This changes shifts DMM staff's participation at the meetings from "expected to attend" to "not expected to attend unless requested."

Prior to this policy change, DMM employees typically consulted with DMM management, and subsequently provide DMM's position and suggestions. DMM recognized its input is advisory and that ownership of the process and its outcome was the responsibility of CAISO. As more detailed proposals were developed, DMM provided input to CAISO executive management in special meetings or at CAISO's weekly Policy Review Committee meetings. These meetings are designed to obtain CAISO executive management approval or direction, of particular importance on significant or controversial design issues. During the stakeholder process, DMM also submits written comments to CAISO that are posted alongside other stakeholders' comments on a proposal. Audit staff believes that the DMM participation in these forums, in its advisory capacity, is an important function that should be maintained. By so doing, it both advises the process as well as prepares itself to file its own informed independent assessments when CAISO files proposals with the Commission.

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<sup>19</sup> Order No. 719, FERC Stats. & Regs. ¶ 31,281 at P 357.



DMM also provides recommendations regarding proposed OATT changes in its quarterly and annual reports, available on CAISO's website, and also to CAISO staff and management. DMM highlights recommendations if it believes its concerns were not clearly articulated or heeded in prior communications and/or meetings.

Final proposals are presented to the entire executive management team at the monthly Executive Leadership Team (ELT) meetings prior to being presented to the CAISO Board for approval. The DMM Director comments on DMM's position to the Board, but no longer at the ELT meetings, but earlier in the process which DMM finds more effective. When proposed OATT changes are presented to the CAISO Board for approval, DMM includes written comments. DMM also verbally comments to the CAISO Board on controversial OATT changes, or when it has additional recommendations, limitations or disagreements with the CAISO or stakeholders.

However, when CAISO filed proposed OATT or market revisions with the Commission the DMM did not demonstrate an appropriate degree of independence. Rather, the DMM had a long-standing practice of permitting CAISO to represent DMM's views in CAISO filings to the Commission. As a result, DMM's views presented in CAISO filings were not always the verbatim comments of the DMM. During the audit, audit staff observed that DMM has improved its efforts to clarify its position and demonstrate its independence from CAISO through separate filings to the Commission in response to CAISO filings. The Director of DMM also indicated that this improved process may also entail procuring the assistance of an independent attorney if the DMM Director feels that is necessary. Audit staff noted that beginning in late 2016, DMM began filing its own comments, or providing separately written comments for joint filing, in proceedings before the Commission to ensure adequate and independent representation. Since 2017, DMM has filed separate comments to the Commission on matters including, but not limited to: (1) the congestion revenue rights Settlement Rule; (2) fast start resources' determination of market prices; and (3) allocation of real-time bid cost recovery to deviations.<sup>20</sup> Audit staff believes that DMM comments can, under certain conditions, display adequate independence if it is clear they are separately authored, whether they are filed jointly or separately. However, if there are significant differences in the positions, separate filings would be a more readily apparent demonstration of independence.

Audit staff believes the role of the DMM during CAISO's OATT revision process properly demonstrates its advisory role to CAISO, stakeholders, the Commission, and the CAISO Board. However, audit staff agrees with the DMM Director that DMM's expression of its views on CAISO filings can best be achieved by filing separately and

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<sup>20</sup> See Docket Nos. ER17-853-000, RM17-3-000, and RM17-2-000, respectively.



using its own attorney, when the DMM Director feels it is necessary. Separate filings are particularly critical when the DMM opposes any key element of the proposed filing.

**Recommendation**

We recommend CAISO:

6. Facilitate and encourage the DMM to (i) continue its advisory participation in internal committees involved in issues with significant market impact, (ii) articulate its independent views when there is a Commission filing by CAISO with market implications, particularly when they diverge from those of the CAISO, and (iii) use DMM's own legal representation, as necessary, in making such filings.

**Corrective Actions Taken During the Audit**

During the audit, DMM began filing comments on all OATT changes it independently determines have significant impacts on the operation of the markets or the ability of CAISO to properly operate those markets. Audit staff reviewed the filings from the audit period and believes DMM's corrective actions, coupled with its enhanced ability to secure adequate legal assistance as needed, fully satisfies Recommendation No. 6.

#### 4. Testing Ancillary Service Providers

CAISO did not conduct the range and frequency of testing and auditing required by the CAISO OATT to verify, within reasonable timeframes, that generators paid to provide ancillary services were capable of providing the services.

##### **Pertinent Guidance:**

- OATT, section 8.9, Verification, Compliance Testing, and Auditing, states in part:  
  
Availability of contracted and Self-Provided Ancillary Services and RUC Capacity shall be verified by the ISO by unannounced testing of resources, by auditing of response to ISO Dispatch Instructions, and by analysis of appropriate Meter Data, or Interchange Schedules.<sup>21</sup>
- OATT, section 8.10, Periodic Testing of Units, states in part:  
  
The CAISO shall periodically conduct unannounced tests of resources providing Ancillary Services. For Ancillary Services the unannounced tests will confirm the ability of such resource to meet the applicable Ancillary Resource standard for performance and control. The frequency of testing shall be within such time frames as are reasonable under all circumstances.<sup>22</sup>
- CAISO Operating Procedure 5370 (OP 5370), *Resource Performance Verification*, states that the purpose of the operating procedure is in part:  
  
This operating procedure describes the roles, responsibilities, and actions for conducting performance audits and unannounced compliance testing as defined in section 8.9 of the OATT.<sup>23</sup>

##### **Background**

Audit staff reviewed CAISO's OATT requirements to verify whether CAISO properly complied with its tariff obligations to ascertain that suppliers of ancillary services could actually provide those services. Section 8.9 of CAISO's OATT states: what verification shall be performed and the procedures by which the verification will be conducted. Section 8.10 provides further details by stating that unannounced testing shall

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<sup>21</sup> CAISO, CAISO eTariff, 8.9 Verification, Compliance Testing, and Auditing (7.0.0).

<sup>22</sup> *Id.* § 8.10 (3.0.0).

<sup>23</sup> The current version of CAISO's Operating Procedure 5370 (along with revision history) can be found at <http://www.caiso.com/Documents/5370.pdf>



be done within “reasonable” time frames. CAISO crafted Operating Procedure 5370, Resource Performance Verification (Formerly G-214) (OP 5370), to implement this OATT requirement.

In conjunction with CAISO’s IA, audit staff learned that during the 19-month period of January 1, 2014 through July 31, 2015, 219 resources received ancillary service payments, of which 138 were dispatched during one or more contingent events. CAISO only exercised its verification responsibility on a total of 12 resources, performing unannounced testing for two resources that were not dispatched and auditing 10 resources’ response to ISO dispatch instructions, despite having data that was readily available to audit all 138 dispatched resources.

FERC audit staff notes that, at the time of the IA audit, CAISO did not adequately implement the verification requirements in the OATT. The tariff requires both the testing for instances in which payment was made when a resource is not dispatched, as well as the performance metrics audits on those resources that were actually dispatched. Audit staff discovered there to be 81 resources that were compensated without dispatch, yet only 2 percent were validated as required by the OATT (i.e., 2 of the 81 units that did not generate). The testing process for resources actually dispatched was only 7 percent validated as required by the OATT (i.e., 10 of the 138 units that did generate) leaving about 93 percent that were not validated by audits. Audit staff finds this level of verification to be inadequate to fulfil CAISO’s obligations to ensure compensated resources are capable to performing at the level they were compensated to perform and the dispatched resources actually performed, as specified in its OATT and Operating Procedure 5370.

From its written response to the IA, audit staff learned that CAISO asserted it had “reasonable assurance” that units being paid for ancillary services were capable of performance based upon measures other than those required by both section 8.9 and 8.10 of the OATT a implemented in its OP 5370. CAISO cited the following measures which it felt assured that any deficiencies in compliance in these areas were mitigated by: “continuous resource status data; settlements mechanisms, such as no-pay; and measures, such as, regulation pay for performance metrics.” However, audit staff finds that these measures, not specified in the relevant sections of the OATT, and from which CAISO did not file any petitions for a Commission waiver from compliance to, resulted in noncompliance its tariff section 8.9 and 8.10 requirements.

Audit staff is concerned CAISO gives undue weight to risk mitigation measures and partial adherence to its operating procedures as a basis to determine compliance to its OATT language. CAISO should focus its testing and auditing of generators capable of bidding into the ancillary service market within a reasonable timeframe as required by the CAISO OATT.

**Recommendations**

We recommend CAISO:

7. Conduct ancillary service testing and auditing, by the means specified in its OATT.
8. Enhance controls to ensure CAISO conducts ancillary service testing and auditing within reasonable timeframes.

**Corrective Actions Taken During the Audit**

Audit staff verified CAISO enhanced its procedures by improving its unannounced testing program and increasing the use of performance auditing, beginning in February 2017, to comply with OATT requirements. Audit staff verified CAISO began conducting additional ancillary service testing and auditing in summer 2017. Based upon audit staff's review, CAISO fully satisfies Recommendation No. 8 and that the IA is continuing to monitor the effectiveness of the revised procedures to fully comply with recommendation 7.



## 5. Assuring the Accuracy of Data Submitted to CAISO

CAISO did not have sufficient controls to ensure certain data submitted by market participants were accurate and could be relied on by CAISO when performing its responsibilities under the OATT.

### Pertinent Guidance

- OATT, section 4.6.4, Identification of Generating Units, states in part:

All information provided to the CAISO regarding the operational and technical constraints in the Master File shall be accurate and actually based on physical characteristics of the resources except for the Pump Ramping Conversion Factor, which is configurable.<sup>24</sup>

- OATT, Appendix, B.2 Participating Generator Agreement, section 4.1.2, Technical Characteristics, states:

The Participating Generator has provided to the CAISO in Schedule 1 the required information regarding the capacity and operating characteristics of each of the Generating Units listed in that schedule. Pursuant to Sections 8.9 and 8.10 of the CAISO tariff, the CAISO may verify, inspect and test the capacity and operating characteristics provided in Schedule 1.<sup>25</sup>

- OATT, section 40.7, Compliance, states:

The CAISO will evaluate whether each annual and monthly Resource Adequacy Plan submitted by a Scheduling Coordinator on behalf of a Load Serving Entity demonstrates Resource Adequacy Capacity sufficient to satisfy the Load Serving Entity's (i) allocated responsibility for Local Capacity Area Resources under Section 40.3.2 and (ii) applicable Demand and Reserve Margin requirements.<sup>26</sup>

### Background

In order for CAISO to fulfill its own obligations under its OATT, it must receive essential information from market participants that is accurate and conforms to the

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<sup>24</sup> CAISO, CAISO eTariff, 4.6 Relationship Between CAISO and Generators, § 4.6.4 Identification of Generating Units (3.0.0).

<sup>25</sup> *Id.* at Appendix B.2 Participating Generator Agreement, § 4.1.2 Technical Characteristics (2.0.0).

<sup>26</sup> *Id.*, at 40.7 Compliance (2.0.0), § 40.7(a).

specific requirements listed in the OATT. Failure to provide such information is a violation of the OATT by the market participant. However, several OATT provisions assign the responsibility for assuring the accuracy of the data to CAISO and some provide it the authority or explicit requirement to verify and validate such data.

Audit staff notes that CAISO relied primarily upon market incentives to ensure market participants submit timely accurate data. CAISO stated that market participants' failure to provide accurate information could result in lost opportunities for them to participate in the markets, as well as lost revenues, increased allocation of costs, and "traffic ticket" penalties automatically administered by market mechanisms. CAISO asserted that, because the interests of market participants and of CAISO are aligned, and the after-the-fact validation mechanisms, CAISO has adequate assurance of market participant compliance in information submissions. However, audit staff is concerned CAISO may be too reliant on voluntary compliance, and after-the fact detection, and not exercising the full range of its authority to validate data of market participants, and this falls short of CAISO's own compliance to its tariff.

Audit staff determined that operating without reasonable validation in these areas is problematic, particularly if there might be reliability or other important operational impacts. In this regard, audit staff noted that CAISO's efforts to test compliance was correlated strongly to dealing with stresses that arose on the system. Weaknesses in CAISO's data validation procedures are demonstrated below.

#### *Resource Adequacy Review*

IA completed a resource adequacy internal audit in June 2015. The internal audit disclosed that CAISO's Interface for Resource Adequacy computer application, which it uses for validation purposes, could not conduct the evaluation required under section 40.7 of its tariff to demonstrate the required resource adequacy. The deficiencies noted by IA that rendered the evaluation ineffective were in (1) detecting and addressing entities that did not submit the required plans, and (2) validating all the key data inputs provided by entities (i.e., reserve margins and "credits"). The finding stated:

Without validating the resource adequacy plan credits and reserve margins, similar to the process the ISO currently performs to validate the resources and MW quantities on the resource adequacy plans using the supply plans, the ISO may not be aware if load serving entities submit plans that do not meet their obligation and margin requirements, potentially putting grid reliability at risk.

Audit staff notes that while the tariff language did not identify a specific methodology by which CAISO had to make its evaluation, the tariff language required CAISO to provide an evaluation that would provide adequate assurance



that plans were submitted that demonstrated load serving entities had sufficient capacity to meet their tariff obligations. The IA's finding showed that such assurance was lacking in the evaluation performed.

Audit staff found no evidence CAISO actually experienced reliability issues from not conducting proper validation. However, audit staff finds that CAISO did not have sufficient processes to detect resource adequacy plan deficiencies that might have exposed it to reliability risks. Audit staff notes that the OATT assigns responsibility to CAISO for ensuring timely and accurate data submissions through review and validation. As such, it is audit staff's belief that CAISO's efforts were not compliant with the OATT.

#### *Master File Data Submissions*

Since at least 2014, CAISO has known numerous resources input data into the CAISO Master File that were not consistent with the physical characteristics of the resource, as required by OATT section 4.6.4. The Master File physical constraints, rather than the bids submitted by market participants, are used by CAISO to evaluate the commitment and dispatch of units for its market runs. CAISO maintained the Master File data reflected parameters at which the scheduling coordinator desired the unit to operate rather than what it could, and that one parameter, the maximum number of daily start-ups, was particularly problematic. CAISO provided four reasons scheduling coordinators might have differences between the desired and actual physical constraints, on which the DMM expressed opinions regarding compliance with the requirements of the OATT:

First, a scheduling coordinator of a generating unit, particularly an aging one, may not want to subject it to additional wear and tear from more frequent cycling. DMM notified CAISO of its concern regarding Master File inaccuracies and suggested resolution by using the O&M adder DMM helped design and support, expressly to deal with this contingency.

Second, a scheduling coordinator might input a less than physically possible number of daily starts due to contractual obligations that were negotiated when the unit entered the California Public Utilities Commission (CPUC) Resource Adequacy program. Audit staff notes these contractual obligations are not necessarily physical constraints, and that CAISO does not have the contracts nor does it request them from the scheduling coordinators in order to verify contractual limits (and could not provide them in response to a FERC data request). The DMM does not believe contractual limits agreed to by a retail regulator should be dispositive in determining compliance with the OATT since they may not reflect physical constraints as the OATT requires.

Third, scheduling coordinators might seek to avoid violating emission limits imposed on the generating unit. CAISO stated the scheduling coordinator, not the ISO, tracked limits, therefore CAISO was not able to verify the accuracy of the data inputs.

The DMM believed CAISO should better understand this issue and that such limits might be legitimate constraints to the physical operation of the units.

Finally, CAISO suggested the entities may have been confused about the Master File data requirements. The DMM agreed that in 2014 there was misunderstanding on the part of many schedule coordinators but asserted CAISO could and should have done more to clarify the requirements.

Until 2014, CAISO relied primarily on market signals to ensure compliance with the data in the Master File, despite the DMM's urging it to ensure compliance by adherence to the other opportunities offered by the language in the OATT as well. However, before that time CAISO's concern that market force-driven compliance and market participant compliance referrals were not providing adequate compliance assurance had not reached a level that CAISO felt it needed to do anything additional to address this issue. In 2014, CAISO began to address the issue by convening an internal working group to propose solutions. Initially, CAISO sought to modify its Business Practice Manual to require data entered into the Master File reflect a reasonable representation of the resource's physical operating characteristics, based solely on good-faith engineering judgment, and providing attestation and support for that judgment. Ultimately, the fact that CAISO would need to conduct a stakeholder process in order to revise the BPM led to the abandonment of this approach.

As part of its on-going effort to develop a solution, CAISO conducted a survey in March 2015 in which about 35 percent of the scheduling coordinators admitted the input data regarding maximum daily starts reflected commercial rather than physical factors. As a result, CAISO acknowledged that it had not provided sufficient guidance and had not rigorously ensured compliance to the intended purpose of the OATT language, and seeks to initiate a more comprehensive stakeholder process aimed at resource characteristics issues, the Commitment Costs Enhancement Initiative. Audit staff confirmed that Commitment Costs Enhancements Phases 1 and 2 became effective December 30, 2014 and November 1, 2016, respectively. Phase 3 was filed on March 23, 2018.<sup>27</sup>

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<sup>27</sup> CAISO, Filing to Implement Commitment Cost Enhancements Phase 3 Initiative, Request for Timely Commission Order, and Request, for Waiver of Notice Requirement, Docket No. ER18-1169-000 (filed Mar. 23, 2018).



## **Recommendations**

We recommend CAISO:

9. Continue to conduct risk analyses to identify where inaccurate, incomplete, or untimely submissions of data by market participants to the CAISO may threaten CAISO's ability to ensure reliability and/or proper market functioning.
10. Use CAISO's internal audit function to evaluate CAISO's effectiveness in addressing these risk areas under the direction of the Audit Committee.

## V. Other Matter

### 1. CAISO Internal Audit Function

CAISO Internal Audit (IA) could strengthen its level of independence and enhance its staffing with expertise in the critical areas of CAISO's operations and markets to facilitate its role in providing adequate assurance of CAISO's compliance to its OATT.

#### Pertinent Guidance

- The Charter of the Audit Committee (version 2.0, 2010) states in part:
  - 2. Purpose & Areas of Responsibility
  - 2.1 Purpose: The purpose of the Committee is to assist the Board's oversight of (i) the integrity of the ISO's financial statements, (ii) the ISO's compliance with legal and regulatory requirements and (iii) the performance of the ISO's independent auditors and internal audit function. The Committee shall be responsible for reviewing the ISO's financial reporting process, internal controls and codes of conduct of the Board and the employees of the ISO.
  - ...
  - 2.2.17 Review, with ISO management and internal audit, the internal audit charter, activities, staffing, and organizational structure of the internal audit function.
  - 2.2.18 Review and approve the annual internal audit plan and all major changes to that plan.
  - 2.2.19 Ensure there are no unjustified restrictions or limitations placed on internal audit's activities.<sup>28</sup>
- CAISO's Internal Audit Charter (version 1.6, 2016) states in part:
  - 1.0 Mission Statement
  - The mission of the Internal Audit Department is to provide independent, objective assurance and consulting activities designed to add value and improve the operations of the ISO. Internal Audit helps the ISO accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes. . .

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<sup>28</sup> Current version of Audit Committee Charter (with document change history) can be found at <https://www.caiso.com/Documents/AuditCommitteeCharter.pdf>



### 3.0 Responsibilities

The scope of internal auditing encompasses, but is not limited to, the examination and evaluation of the adequacy and effectiveness of the organization's governance, risk management, and internal business process as well as the quality of performance in carrying out assigned responsibilities to achieve the organization's stated goals and objectives.

The Internal Audit Department is entrusted primarily with the responsibility to appraise the policies, procedures and management controls of the ISO to help ensure that the activities are properly managed and to promote effective controls. In carrying out this responsibility, the Internal Audit Department shall:

- Develop a comprehensive risk assessment to identify and prioritize potential audit areas within the audit universe, which pose the greatest risk and liability to the ISO from an audit standpoint;
- Establish annually a risk-based audit plan based on the comprehensive risk assessment which identifies those audits that could be performed by existing internal audit resources. The Internal Audit Department will consider input from executive management and the Audit Committee in developing the plan. Any anticipated, significant deviation from the approved internal audit plan will be communicated in advance to executive management and the Audit Committee through periodic activity reports.

### Background

In 2010, CAISO hired a new IA Director, and over time, with hiring of staff with certified competencies in high-risk areas, IA developed as an effective control over CAISO's compliance with regulatory obligations. Since then, IA has primarily focused on two areas it deems high-risk: (1) compliance to the NERC reliability standards for which the CAISO is responsible, and (2) concerns identified by the FERC audit of CAISO under Docket No. PA11-04-000 regarding financial reporting and accounting matters. IA has also conducted a number of important operational audits. Despite these accomplishments, audit staff identified two areas where significant enhancements could be made.

*Independence of the Internal Audit*

Since the current IA Director was hired, IA had reported administratively to the Chief Compliance Officer, who was also responsible for assessing the Director's performance of the IA function. The process for annually reviewing the performance and compensation of the IA Director is facilitated through the standard CAISO performance evaluation process and based upon the same metrics. However, being accountable directly to a company's audit committee for performance reviews conforms to the standards of the Institute of Internal Auditors (IIA), which sets professional standards for internal auditing. This standard is included as part of the IIA's "Model Audit Committee Charter" that the Audit Committee has the responsibility to "[a]t least once per year, review the performance of the CAE [Chief Audit Executive] and concur with the annual compensation and salary adjustment." The IA Director serves as the CAE for the IA function. Accordingly, audit staff expressed concerns over the level of independence of the IA Director if not accountable to CAISO's audit committee for performance and compensation purposes.

In mid-December 2016, the IA Director made a presentation in an Executive Session of the Board's Audit Committee to discuss the results of a survey it conducted on certain benchmarking efforts related to the independence of the internal audit departments at seven other North American ISO/RTOs. Benchmarking results used in the Director's presentation indicated the responsibilities of CAISO's Audit Committee were similar to those of other audit committees surveyed, except that CAISO's did not review and approve the IA Director's performance and compensation.

As a result, CAISO's Audit Committee presented its new charter to the Board, approved in March 2017. The charter makes reviewing the performance of the IA Director the joint responsibility of (i) the VP, General Counsel and Chief Compliance Officer and (ii) the Audit Committee, effective the 2017 budget cycle. The charter also now includes language requiring the Committee to "review and concur in the appointment, replacement or dismissal of the Director of Internal Audit." Audit staff believes these changes have increased the independence of the IA Director and the IA department. These actions bring the Audit Committee Charter into conformity with the IIA requirements and addresses audit staff's concerns.

However, audit staff noted a related issue that arose during the audit, which potentially impacts the independence of the IA and might not be addressed by the changes made to the Audit Committee Charter. This issue is the linkage between the performance measures for the IA and any findings of noncompliance that arise from those efforts. IA is subject to the same performance metrics as other CAISO business units, one of which relates to compliance violations. Under this metric, audit findings leading to a determination of noncompliance have a negative impact on the performance ratings of IA and consequently on compensation. This creates a conflict of interest for



internal auditors. Audit staff believes the performance metric related to noncompliance should be removed for IA staff. This change would further strengthen the independence of IA and result in a stronger compliance program at the CAISO.

### *Staffing of Internal Audit*

The second area audit staff identified as a concern was the existing staffing level of IA when the audit commenced. In response to input from the IA Director, the staffing level of IA had been increased in 2010 from three to four professional auditors and had remained at that level. The existing staffing of IA consisted of an Internal Audit Manager and four auditors. Two staff members have received technology and security training that enables them to audit NERC mandatory reliability standards applicable to CAISO and most of their time is devoted to these areas, another auditor is assigned responsibility for the auditing of financial, general accounting, Human Resources, and certain market-related functions. This leaves only one only one auditor with enough knowledge of operational and market areas to audit many CAISO business functions. Audit staff believes this limits the number of such audits that can be performed and creates a risk of loss of continuity if the auditor leaves. Audit staff expressed these concerns during the audit. The IA Director held discussions with the Audit Committee regarding internal audit staffing levels at CAISO in March 2017. As part of this discussion, the IA Director shared a summary of the staffing comparison between other ISO/RTOs that was prepared at the ISO/RTO Internal Audit Directors meeting in October 2016. The comparison showed CAISO's internal audit department had one to two staff fewer than most other ISO/RTOs. Audit staff notes CAISO's IA department does in fact have a smaller staff than any other jurisdictional ISO/RTO, especially with operational/market expertise.

Despite staffing levels, IA has completed several important operational audits. One assured generation units were tested for their capability to provide ancillary services awarded under OATT section 8.9. Another verified the demonstration of resource adequacy under the OATT at section 40 was complete and accurate. However, audit staff believes that IA does not have the staffing levels with expertise to conduct sufficient audits of CAISO's operation and markets to provide adequate assurance of compliance with the CAISO OATT.

Audit staff understands that after the development of the 2017 audit plan, the Director of IA had discussions with both the Audit Committee and the Chief Compliance Officer regarding the sufficiency of IA staffing levels. These conversations focused on: the relatively few staff in CAISO's IA relative to other RTO/ISOs; the expanding role of IA to conduct new audits as well as follow-up audits, and advisory and consulting services to CAISO business units, and adding industry and operational depth to reduce the dependency on the one staff member who performs nearly all operational audits.

Audit staff notes that in 2017, the Audit Committee agreed to increase the level of staffing in IA. The Director of IA is currently in the process of increasing her staff in accordance with the authorization of the Audit Committee. Audit staff believes this will increase the assurance that CAISO is in compliance with its operational and market processes. Audit staff concurs that additional staffing is the best long-term option in achieving this goal, as the level of activity in these areas is likely to continue to grow.

**Recommendations**

We recommend CAISO consider:

1. Having the Audit Committee assess the performance and remuneration of the Director of Internal Audit.
2. Removing compensation metrics that might conflict with IA's objective of detecting noncompliance during the audit process.
3. Adding staff or supplementing the necessary skills in operational areas to empower IA in performing the full range of audits necessary to provide adequate assurance of CAISO's compliance to its OATT.



## VI. Appendix A – CAISO Response to Draft Audit Report



California Independent System Operator Corporation

September 4, 2018

*Via Electronic Mail*

Steven Hunt  
Acting Director and Chief Accountant  
Division of Audits and Accounting  
Office of Enforcement  
Federal Energy Regulatory Commission  
888 First Street, N.E., Room 5K-13  
Washington, D.C. 20426

Re: *California Independent System Operator Corporation*  
Office of Enforcement; Docket No. PA17-3-000  
Response to August 6, 2018 Draft Audit Report

Dear Mr. Hunt:

This letter sets forth the response of the California Independent System Operator Corporation ("CAISO") to the August 6, 2018 draft audit report for the period January 1, 2014 to March 2, 2018. The CAISO appreciates the opportunity to comment on the draft audit report and would like to thank the audit team for their courtesy and professionalism throughout the audit.

As set forth more specifically below, the CAISO does not dispute and generally agrees with Audit Staff's findings and recommendations, and has implemented, or is in the process of implementing those recommendations. We discuss each of those findings and recommendations below, followed by a discussion of the "other matter" item addressed in the draft audit report. The CAISO's plan for implementing Audit Staff's recommendations will be provided as requested in the draft audit report.

### **A. Independence of the Department of Market Monitoring (Finding 1 and Recommendations 1-3):**

The CAISO does not dispute this finding and agrees with each of the related recommendations set forth in the draft audit report. As the draft audit report correctly observes, the CAISO proactively began working on certain enhancements in this area prior to the commencement of the audit based upon its review of the July 15, 2016 Southwest Power Pool Audit Report, and has now fully implemented Recommendations 1-3.

**B. Physical Separation of the Department of Market Monitoring (Finding 2 and Recommendations 4-5):**

The CAISO does not dispute this finding and agrees with each of the related recommendations set forth in the draft audit report.

**C. Department of Market Monitoring Involvement in CAISO OATT Formation (Finding 3 and Recommendation 6):**

The CAISO does not dispute this finding and agrees with the related recommendation. The CAISO agrees that the corrective actions identified in the draft audit report that have taken place during the audit period fully satisfy Recommendation 6.

**D. Testing Ancillary Service Providers (Finding 4 and Recommendations 7-8):**

The CAISO does not dispute this finding and agrees with the related recommendations. The CAISO tariff does not specify the frequency or range of testing, but instead states “the frequency of testing shall be within such time frames as are reasonable under all the circumstances.” Nevertheless, the CAISO agrees that conducting more frequent ancillary services tests and performance audits is warranted, and over the last several years the CAISO has implemented revised business practices to do so. The draft audit report recommends the CAISO: (1) conduct ancillary service testing and auditing, by the means specified in its OATT; and (2) enhance controls to ensure CAISO conducts ancillary service testing and auditing within reasonable timeframes. The CAISO agrees that it has fully complied with Recommendation 8, and will continue to monitor the revised procedures to fully implement Recommendation 7.

**E. Assuring the Accuracy of Data Submitted to CAISO (Finding 5 and Recommendations 9-10):**

The CAISO does not dispute this finding and agrees with the related recommendations.

**F. Other Matter: CAISO Internal Audit Function:**

In the other matter section of the draft audit report, Audit Staff made three suggestions relating to the independence and staffing of the CAISO’s Internal Audit department. CAISO understands, based on its review of the draft report and discussions with Audit Staff, that these are optional suggestions that Audit Staff raised for the CAISO to consider as a means for enhancing its internal audit function. As such, the CAISO will consider each recommendation as it continues to mature its internal audit function.

The CAISO agrees with, and has implemented, Recommendations 1 and 3, which proposed having the Audit Committee of the CAISO’s Board of Governors assess the performance and remuneration of the Director of Internal Audit (Recommendation 1) and adding Internal Audit staff or supplementing their skills in operational areas (Recommendation 3). These



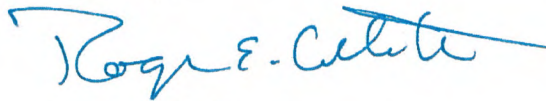
Steven Hunt  
Federal Energy Regulatory Commission  
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enhancements were in progress at the time the audit commenced and were completed while the audit was ongoing.

With respect to Recommendation 1, the CAISO notes that the Director of Internal Audit has had a dual reporting relationship throughout the audit period, which includes functional reporting to the Audit Committee of the Board of Governors, as well as administratively to the Chief Compliance Officer. Effective January 2017, the responsibility for assessing performance and resulting compensation for the Director, Internal Audit was made a joint responsibility of the Audit Committee of the Board, and the Chief Compliance Officer. The Audit Committee approved an updated Audit Charter documenting this role in March 2017. With respect to Recommendation 3, the size of the Internal Audit department has been increased to seven total staff members (including the Director), three of which focus primarily on operational and market-related audits.

It has been a pleasure working with you and your staff on the audit. If you have any questions regarding this response, please do not hesitate to contact me.

Sincerely,



Roger E. Collanton  
Vice President, General Counsel, Chief Compliance Officer  
& Corporate Secretary  
California Independent System Operator Corporation

## VII. Appendix B – DMM Response to Draft Audit Report

California Independent System Operator Corporation



September 4, 2018

Mr. Steven Hunt  
Acting Director and Acting Chief Accountant  
Division of Audits and Accounting  
Office of Enforcement  
Federal Energy Regulatory Commission  
888 First Street, N.E. Room 5K-13  
Washington, D.C. 20426

RE: *California Independent System Operator, Docket No. PA 17-3-000*  
Response to Audit Report and Recommendations

Dear Mr. Hunt:

The Department of Market Monitoring ("DMM") of the California Independent System Operator "CAISO" provides the following response to Draft Audit Report ("Audit Report") of the Division of Audits and Accounting of the Federal Energy Regulatory Commission's Office of Enforcement ("FERC Audit Staff") dated August 6, 2018.

### Overview

DMM appreciates the highly professional, transparent and cooperative manner in which FERC Audit Staff conducted the various activities involved in the audit process. DMM believes the audit was a valuable process which will help to delineate the appropriate roles and responsibilities of the CAISO and DMM, while also helping improve the future understanding and coordination between the CAISO and DMM as its independent market monitor.

DMM agrees with the findings and recommendations in the Audit Report, subject to the limited comments and clarifications provided in this response. As noted in the Audit Report, the CAISO and DMM have already undertaken a numerous steps to implement many of the recommendations – particularly those involving the independence of the DMM. DMM looks forward to continuing to work with the CAISO and Audit Staff to address the recommendations and feedback provided during the audit.

DMM appreciates that the Audit Report specifically notes that Order No. 719 "proposed a balanced and flexible approach to ensure the independence of market monitors" which includes the type of internal market monitoring structure employed at the CAISO. DMM believes that being an internal market monitor offers tremendous benefits in terms of increased access to



information, CAISO staff and knowledge of CAISO operations. Any concerns about the independence of an internal market monitor such as DMM can be effectively mitigated by the types of organizational structures and controls that have recently been implemented at the CAISO. The additional observations and recommendations provided in the Audit Report will help ensure the continued independence and effectiveness of DMM at the CAISO's independent market monitor.

## **1. Independence of the Department of Market Monitoring**

***Finding:*** CAISO did not have adequate structures in place to ensure sufficient independence of the market monitoring functions of the DMM from the influence of CAISO's senior management. Specifically, CAISO executives were too closely involved in the DMM Director's performance review and compensation, DMM staff incentive compensation awards, DMM staffing issues, and approval of the DMM budget.

**Response:** DMM agrees with this finding and has supported recent organizational changes that have already been made to ensure sufficient independence of the market monitoring functions of the DMM. The Executive Director of DMM notes that in practice prior to these changes DMM's monitoring reports, analyses and positions on issues have not been modified as the result of any by any inappropriate influence of CAISO's senior management. However, the Executive Director strongly supported recent organizational changes made to ensure that DMM can continue to conduct its monitoring functions independently of any influence of CAISO's senior management.

**Recommendation 1:** *Involve the Oversight Committee when reviewing the performance of the DMM and the DMM Director.*

**Response:** DMM supports this recommendation. As noted in the Audit Report, the CAISO has already implemented changes needed to fully comply with this recommendation.

**Recommendation 2:** *Separate the awarding of incentive compensation to DMM staff from approval by CAISO and from measurement by performance of tasks in areas other than DMM specific objectives and goals.*

**Response:** DMM supports this recommendation. As noted in the Audit Report, the CAISO has already implemented changes needed to fully comply with this recommendation.

**Recommendation 3:** *Grant the Oversight Committee the authority to review and approve the DMM budget, subject only to overall budget approval by the CAISO Board.*

**Response:** DMM supports this recommendation. As noted in the Audit Report, the CAISO has already implemented changes needed to fully comply with this recommendation.

## 2. Physical Separation of the DMM

**Finding:** *CAISO relocated some staff closer in physical proximity to the DMM, creating a spatial lack of separation between the DMM and CAISO staff performing functions over which the DMM has oversight responsibility. The lack of separation threatens confidentiality, which could compromise the independence of the DMM.*

**Response:** DMM agrees with this finding. DMM has worked with the CAISO CEO to effectively address this issue and ensure that DMM has sufficient physical separation and facilities to ensure that its need for confidentiality and independence is met. DMM specifically notes that in 2016 the CAISO CEO fully supported DMM's request for the CAISO to cancel significant modifications to the DMM's staff's immediate work area that had been planned by CAISO facilities staff.

**Recommendation 4:** *Provide the DMM Director adequate notice of, and involvement in, the process by which CAISO evaluates relocation of CAISO staff, particularly adjacent to DMM staff, so that the Director may raise his concerns on the independence of the DMM.*

**Response:** DMM supports this recommendation.

**Recommendation 5:** *Ensure the DMM Director has opportunity to bring any unresolved concerns on matters of potential impacts of staff relocation, and other issues of inadequacies in physical separation before the DMM Oversight Committee, who will have the authority itself to address, or bring them to the full Board to address, regarding actions sufficient to ensure independence around the DMM workspace.*

**Response:** DMM supports this recommendation.

## 3. DMM Involvement in CAISO OATT Formation

**Finding:** *By filing joint comments with CAISO, the DMM did not adequately ensure its independence in advising all interested parties of its views regarding CAISO's proposed OATT and market rule changes. This is particularly problematic when its views differed from those of CAISO. Had the DMM independently advised the Commission, the CAISO, and other interested entities of its views regarding any needed rule and tariff changes, it would have improved the clarity of DMM's position and better demonstrated its independence from CAISO, both of which are critical in its role of advising the Commission.*

**Response:** DMM agrees with this finding. DMM began submitting separate written comments to the Commission in September 2016. By 2016 DMM also began an effort to increase ongoing communications and briefings directly between DMM and staff from the Commission's Office of Energy Market Regulation (OEMR) on market design issues. As noted in the Audit Report, DMM now files separate comments on all OATT changes that DMM independently determines have significant impacts on the operation of the CAISO markets. DMM appreciates that the Commission's audit process has confirmed for DMM and the CAISO that filing separately allows DMM to



clarify its position and better demonstrate its independence from CAISO in its role of advising the Commission.

**Recommendation 6:** *Facilitate and encourage the DMM to (i) continue its advisory participation in internal committees involved in issues with significant market impact, (ii) articulate its independent views when there is a Commission filing by CAISO with market implications, particularly when they diverge from those of the CAISO, and (iii) use DMM's own legal representation, as necessary, in making such filings.*

**Response:** DMM supports these three recommendations.

- (i) DMM supports the first recommendation that the CAISO “facilitate and encourage the DMM to ... continue its advisory participation in internal committees involved in issues with significant market impact.” DMM believes that participation in such internal discussions and meetings is one of the key benefits of being an internal market monitor. As noted in the Audit Report, “DMM participation in these forums, in its advisory capacity ....both advises the [CAISO] process as well as prepares [DMM] to file its own informed independent assessments when CAISO files proposals with the Commission.”<sup>1</sup>

As noted in the Audit Report, the CAISO recently adopted a new internal policy which changes the invitation to the DMM staff to participate in internal teams and committees from “expected to attend” to “not expected to attend unless requested.”<sup>23</sup> These recent changes in CAISO policies and practices have led to a significant decrease in opportunities for participation by DMM on internal teams. Currently, DMM’s participation in most initiatives is very similar to that of a stakeholder.

DMM understands that these new policies and procedures are based on CAISO’s concern that while the core functions of every Market Monitoring Unit include evaluating and providing recommendations on existing and proposed market rules, “[t]he Market Monitoring Unit is not to effectuate its proposed market design itself.”<sup>3</sup> DMM believes this concern is misplaced, since DMM’s role in internal CAISO teams and meetings has always been clearly advisory. DMM looks forward to continue to work with the CAISO to allow DMM’s participation in such internal meetings whenever possible and appropriate.

As noted in the Audit Report, the DMM Director’s participation in meetings of the Executive Leadership Team (ELT) was discontinued in spring 2018.<sup>4</sup> DMM clarifies that this change coincided with formal adoption of the formal CAISO policy limiting DMM’s participation in internal teams and committees referenced above. This formal policy specifically applies to the ELT. As noted in the Audit Report, in the case of the ELT, the DMM Director believes that this change allows

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<sup>1</sup> Audit Report, p. 34.

<sup>2</sup> Audit Report, p. 36.

<sup>3</sup> C.F.R. § 35.28(g)(3)(ii), cited in the Audit Report, p.33.

<sup>4</sup> Audit Report, p. 12.

the other participants in the ELT meetings the opportunity for more open communications in matters which do not impact the DMM's performance of its duties.<sup>5</sup>

(ii) As noted above, DMM began filing comments to the Commission on all OATT changes that DMM independently determines have significant impacts on the operation of the CAISO markets since September 2016. DMM agrees that this approach allows DMM to clarify its position and better demonstrated its independence from CAISO in its role of advising the Commission

(iii) In 2017, DMM received budget and authorization from its Oversight Committee for DMM's own legal representation. In 2018, DMM has arranged for its own outside legal representation, as necessary, for assistance in making any filings or other legal matters.

## Conclusion

DMM appreciates the FERC Audit Staff's diligent work and agrees with the findings and recommendations in the Audit Report, subject to the limited comments and clarifications provided above. DMM looks forward to continued cooperation with FERC Audit Staff and the CAISO during the compliance phase.

Respectfully submitted,

/s/ Eric Hildebrandt

Eric Hildebrandt, Ph.D.  
Executive Director, Market Monitoring  
California Independent System Operator

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<sup>5</sup> Audit Report, p. 12.