



August 25, 2016

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

**Re: California Independent System Operator Corporation
Non-Conforming Service Agreement No. 3981
Docket No. ER16-____-000**

Dear Secretary Bose:

The California Independent System Operator Corporation (CAISO) submits¹ for Commission acceptance a Dynamic Scheduling Host Balancing Authority Operating Agreement (DSHBAOA) between the CAISO and the Arizona Public Service Company (APS).²

I. Purpose of the DSHBAOA

The DSHBAOA is applicable to the operators of balancing authority areas hosting resources located outside the CAISO's Balancing Authority Area that wish to schedule dynamic imports of energy and energy associated with ancillary services (except regulation service) into the CAISO balancing authority area.³ The DSHBAOA establishes the framework of operating requirements for the dynamic scheduling functionality and requires the host balancing authority area responsible for the functionality to comply with the applicable provisions of the CAISO tariff, including the dynamic scheduling protocols.⁴ These protocols contain operating and scheduling provisions that are derived primarily from applicable North American Electric Reliability Corporation (NERC) policies and Western Electricity Coordinating Council (WECC) requirements.

¹ The CAISO submits the DSHBAOA pursuant to Section 205 of the Federal Power Act, 16 U.S.C. § 824d.

² The DSHBAOA has been designated as Service Agreement No. 3981.

³ The *pro forma* DSHBAOA is contained in Appendix B.9 to the CAISO tariff.

⁴ CAISO Tariff, Appendix M.

II. Variation from the *Pro Forma* DSHBAOA

There are a couple differences between the DSHBAOA and the *pro forma* DSHBAOA:

- Section 3.4, Communication, has been modified to allow an additional twenty (20) calendar days advance notice; for a total of thirty (30) calendar days advance notice for either party to report updates to its operational contact information. Additional time is necessary to help ensure compliance with this contract term.
- Section 11.4, Governing Law and Forum, has been modified to include state or federal courts located in Arizona as an appropriate forum, in addition to state and federal courts in California, for DSHBAOA disputes not within the jurisdiction of the Commission. APS is located in Arizona and, based on the services it provides under the DSHBAOA, requested forum parity with the CAISO for disputes not within the jurisdiction of the Commission.

III. Effective Date

The CAISO respectfully requests that the enclosed DSHBAOA to be made effective as of October 25, 2016.

V. Attachments and Service

The CAISO has served copies of this filing upon APS, the California Public Utilities Commission, and the California Energy Commission. In addition, the CAISO has posted this filing on the CAISO website.

Enclosed for filing is each of the following:

- (1) This transmittal letter; and
- (2) Dynamic Scheduling Host Balancing Authority Operating Agreement (Attachment A).

VI. Correspondence

The CAISO requests that all correspondence, pleadings, and other communications concerning this filing be served upon the following:

John C. Anders*
Lead Counsel
California Independent
System Operator Corporation
250 Outcropping Way
Folsom, CA 95630
Tel: (916) 608-7287
Fax: (916) 608-7222
janders@caiso.com

* Individuals designated for service pursuant to Rule 203(b)(3), 18 C.F.R. § 203(b)(3).

VII. Conclusion

The CAISO respectfully requests that the Commission accept this filing and permit the CAISO's submittal of this Dynamic Scheduling Host Balancing Authority Operating Agreement, Service Agreement No. 3981, to be effective as of the date requested. If there are any questions or concerns regarding this filings, please contact the undersigned.

Respectfully submitted,

/s/ John C. Anders
John C. Anders

Roger E. Collanton
General Counsel
Sidney L. Mannheim
Assistant General Counsel
John C. Anders
Lead Counsel
California Independent
System Operator Corporation
250 Outcropping Way
Folsom, CA 95630
Tel: (916) 608-7287
Fax: (916) 608-7222
janders@caiso.com

Counsel for the California Independent System Operator Corporation

CERTIFICATE OF SERVICE

I certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 25th day of August, 2016.

/s/ Grace Clark
Grace Clark

Attachment A – Dynamic Scheduling Host Balancing Authority Operating Agreement

California Independent System Operator Corporation

August 25, 2016

**CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION**

AND

ARIZONA PUBLIC SERVICE COMPANY

**DYNAMIC SCHEDULING HOST
BALANCING AUTHORITY OPERATING
AGREEMENT**



DSHBA Operating Agreement (DSHBAOA)

THIS DYNAMIC SCHEDULING HOST BALANCING AUTHORITY OPERATING AGREEMENT (“AGREEMENT”) is established this 9th day of August, 2016, and is accepted by and between:

Arizona Public Service Company (“Host Balancing Authority”), having its registered and principal executive office at 400 North 5th Street, Phoenix, Arizona 85004

and

California Independent System Operator Corporation (“CAISO”), a California nonprofit public benefit corporation having a principal executive office located at such place in the State of California as the CAISO Governing Board may from time to time designate.

The Host Balancing Authority and the CAISO are hereinafter referred to as the “Parties.”

Whereas:

- A.** The Parties named above operate Balancing Authority Areas.
- B.** The Parties wish to coordinate operation of dynamic scheduling functionality to satisfy North American Electric Reliability Corporation (“NERC”) and Western Electricity Coordinating Council (“WECC”) standards and criteria and Good Utility Practice.
- C.** The Host Balancing Authority desires to implement an agreement to facilitate dynamic scheduling from System Resources in its Balancing Authority Area to the CAISO Balancing Authority Area.
- D.** The Parties wish to enter into this Agreement to establish the terms and conditions for the operation of the dynamic scheduling functionality from Host Balancing Authority’s Balancing Authority Area to the CAISO Balancing Authority Area.
- E.** The CAISO has certain statutory obligations under California law to maintain power system reliability.



NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:

1. Term and Termination

1.1 Effective Date

This Agreement shall be effective as of the date set forth above, unless this Agreement is accepted for filing and made effective by the Federal Energy Regulatory Commission ("FERC") on some other date, if FERC filing is required, and shall continue in effect until terminated.

1.2 Termination

This Agreement may be terminated by either Party upon thirty (30) days written notice to the other Party or upon mutual consent of both Parties. For entities subject to FERC jurisdiction, termination will be effective upon acceptance by FERC of notice of termination, if this Agreement has been filed with FERC, or thirty (30) days after the date of the notice of termination by a Party, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders. The CAISO shall timely file any required notice of termination with FERC. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination with FERC within sixty (60) days after issuance of the notice of termination by a Party; or (2) the CAISO files the notice of termination with FERC in accordance with the requirements of FERC Order No. 2001.

2. Definitions

2.1 WECC Definitions

Except as defined below, terms and expressions used in this Agreement shall have the same meanings as those contained in the WECC Glossary of WECC Terms and Acronyms.

2.2 Specific Definitions

2.2.1 CAISO Dynamic Scheduling Protocol: The CAISO's Dynamic Scheduling Protocol, which is set forth in Appendix M of the CAISO Tariff.

- 2.2.2 CAISO Tariff:** CAISO Operating Agreement, Protocols, and Tariff as amended from time to time, together with any appendices or attachments thereto.
- 2.2.3 Good Utility Practice:** Any of the practices, methods, and acts engaged in or approved by a significant portion of the electric utility industry in the WECC region during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.
- 2.2.4 Point of Contact:** A person or entity having the authority to receive and act upon scheduling or dispatch communications from the other Balancing Authority and available through a communications device mutually agreed upon on a 24-hour, 7-day basis.
- 2.2.5 Scheduling Coordinator:** An entity certified by the CAISO for the purposes of undertaking the functions of: submitting bids or schedules for energy, generation, transmission losses, and ancillary services; coordinating generation; tracking, billing, and settling trades with other Scheduling Coordinators; submitting forecast information; paying the CAISO's charges; and ensuring compliance with CAISO protocols.
- 2.2.6 System Resource:** "System Resource" is defined in the CAISO Tariff and, in the context of this Agreement, may include combinations of resources as described in the CAISO Dynamic Scheduling Protocol.

3 General

3.1 Purpose

This Agreement sets forth the requirements that must be satisfied by the Host Balancing Authority should it elect to support Scheduling Coordinators' requests for implementation of a dynamic scheduling functionality and delivery of energy and energy associated with ancillary services (except regulation service) into the CAISO Balancing Authority Area. The requirements encompass technical (energy management

system (“EMS”), automatic generation control (“AGC”), and communications), interchange scheduling, telemetry, and aspects of Balancing Authority Area operations.

3.2 NERC/WECC Operating Standards Observed

Nothing in this Agreement is intended to change, supersede, or alter either Party's obligations to abide by NERC and WECC reliability standards and policies and WECC criteria.

3.3 Applicable Standards

This Agreement incorporates, by reference, the CAISO Dynamic Scheduling Protocol.

3.4 Communication

The CAISO and the Host Balancing Authority shall each operate and maintain a 24-hour, 7-day control center with real-time scheduling and control functions. Appropriate control center staff will be provided by each Party who shall be responsible for operational communications and who shall have sufficient authority to commit and bind that Party. The CAISO and the Host Balancing Authority shall jointly develop communication procedures necessary to support scheduling and dispatch functions. The Parties agree to exchange operational contact information in a format to be provided by the CAISO and completed as of the effective date of this Agreement. Each Party shall provide the other Party thirty (30) calendar days advance notice of updates to its operational contact information is expected to change.

4. Telecommunications Requirements

The CAISO and Host Balancing Authority shall establish and maintain real-time, redundant, diversely routed, communications links between the CAISO EMS and the Host Balancing Authority EMS, with the primary link utilizing the standard inter-control center communications protocol (“ICCP”) in accordance with the CAISO Dynamic Scheduling Protocol for the dynamically scheduled System Resources listed in Schedule 2.

5. Telemetry

For each operating hour for which a System Resource is scheduled to deliver energy, and/or energy associated with any of the non-regulating ancillary services to the CAISO Balancing Authority Area, the Host Balancing Authority shall provide, via the ICCP communication links to the CAISO EMS, the data for each System Resource, as set forth in the CAISO Dynamic Scheduling Protocol.

6. Interchange Scheduling Requirements

6.1 Dynamic Scheduling

The Host Balancing Authority shall support Scheduling Coordinators' requests to arrange dynamic interchange schedules for the delivery of energy to the CAISO Balancing Authority Area, reflecting the System Resource's instantaneous energy production or allocation level and taking into account available transmission capacity.

6.2 Treatment of Area Control Error ("ACE")

The Host Balancing Authority shall instantaneously compensate its AGC for the System Resource's energy output that is generated or allocated for establishing the dynamic schedule to the CAISO such that the System Resource energy production or allocation changes have an equal in magnitude and opposite in sign effect on the Host Balancing Authority's ACE.

6.3 Integration of Dynamic Scheduling

For each operating hour during which energy was dynamically scheduled for delivery to the CAISO Balancing Authority Area, the Host Balancing Authority shall compute an integrated amount of interchange based on the System Resource's integrated energy production, by integrating the instantaneous System Resource production levels. Such integrated MWH value shall be agreed to hourly by the real-time schedulers.

6.4 Delivery of Megawatts ("MW")

The CAISO and the Host Balancing Authority will share in the real time deviations from the dynamic, non-regulation ancillary services and energy from the dynamic System Resource, for which the CAISO's maximum



responsibility will be on a pro rata basis. The Host Balancing Authority will remain responsible for regulation obligation for the portion of the System Resource's output not dynamically scheduled into the CAISO Balancing Authority Area in accordance with WECC and NERC reliability standards.

6.5 Access to Information

The Parties agree to exchange information related to telemetry sent and received with respect to the delivery of energy (i) at the request of the other Party for purposes of after-the-fact interchange accounting or (ii) on demand for any other purpose.

7. Other Host Balancing Authority Responsibilities

7.1 Operational Jurisdiction

The Host Balancing Authority will have, at a minimum, the level of operational jurisdiction over the System Resource and the associated dynamic schedule that NERC and WECC vest in Host Balancing Authorities.

7.2 E-Tagging

The Host Balancing Authority must support associated e-tagging as described in the CAISO Dynamic Scheduling Protocol and deemed to be consistent with NERC and/or WECC requirements.

7.3 Real-Time Adjustments

The Host Balancing Authority must have a means to manually override and/or otherwise adjust the dynamic signal in real-time, if needed.

7.4 Coordination with Other Balancing Authorities

The Host Balancing Authority must provide in real-time the instantaneous value of each dynamic schedule to every intermediary Balancing Authority Area through whose systems such dynamic schedule may be implemented to the CAISO.

8. Other

8.1 Losses

The CAISO shall not be responsible for transmission losses caused by transmitting energy dynamically within or across the Host Balancing Authority's Balancing Authority Area for delivery to the CAISO.

8.2 Certification

Only CAISO-certified System Resource/Host Balancing Authority arrangements will be allowed to bid or self provide ancillary services in the CAISO's ancillary services market through a CAISO-certified Scheduling Coordinator.

8.3 No Guarantee of Award

Certification of a System Resource/Host Balancing Authority arrangement allows for bidding of energy and/or certain ancillary services into the CAISO market; it does not, however, guarantee selection of such bid.

8.4 Performance Assessment

The CAISO will monitor and measure dynamically imported ancillary services, whether bid or self-provided, against the performance benchmarks described in the CAISO Dynamic Scheduling Protocol.

8.5 Description of System Resources

Each dynamically scheduled System Resource permitted pursuant to this Agreement is described in Schedule 2.

9. Notifications

The CAISO and the Host Balancing Authority shall jointly develop methods for coordinating the notification of all affected scheduling entities within their respective Balancing Authority Areas regarding schedule changes in emergency or curtailment conditions.

10 Liability

10.1 Uncontrollable Forces

An Uncontrollable Force means any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm, flood, earthquake, explosion, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond the reasonable control of a Balancing Authority which could not be avoided through the exercise of Good Utility Practice.

Neither the CAISO nor the Host Balancing Authority will be considered in default of any obligation under this Agreement or liable to the other for direct, indirect, and consequential damages if prevented from fulfilling that obligation due to the occurrence of an Uncontrollable Force. Neither the CAISO nor the Host Balancing Authority will be considered in default of any obligation under this Agreement to the extent caused by any act, or failure to act, of any intermediary Balancing Authority.

In the event of the occurrence of an Uncontrollable Force, which prevents either the CAISO or the Host Balancing Authority from performing any obligations under this Agreement, the affected entity shall not be entitled to suspend performance of its obligations in any greater scope or for any longer duration than is required by the Uncontrollable Force. The CAISO and the Host Balancing Authority shall each use its best efforts to mitigate the effects of such Uncontrollable Force, remedy its inability to perform, and resume full performance of its obligations hereunder.

10.2 Liability To Third Parties

Except as otherwise expressly provided herein, nothing in this Agreement shall be construed or deemed to confer any right or benefit on, or to create any duty to, or standard of care with reference to any third party, or any liability or obligation, contractual or otherwise, on the part of CAISO or the Host Balancing Authority.

10.3 Liability Between the Parties

The Parties' duties and standard of care with respect to each other, and the benefits and rights conferred on each other, shall be no greater than as explicitly stated herein. Neither Party, its directors, officers, employees, or agents, shall be liable to the other Party for any loss, damage, claim, cost,



charge, or expense, whether direct, indirect, or consequential, arising from the Party's performance or nonperformance under this Agreement, except for a Party's gross negligence, or willful misconduct.

11 Miscellaneous

11.1 Assignments

Either Party to this Agreement may assign its obligations under this Agreement, with the other Party's prior written consent. Such consent shall not be unreasonably withheld.

Obligations and liabilities under this Agreement shall be binding on the successors and assigns of the Parties. No assignment of this Agreement shall relieve the assigning Party from any obligation or liability under this Agreement arising or accruing prior to the date of assignment.

11.2 Notices

Any notice, demand, or request which may be given to or made upon either Party regarding this Agreement shall be made in writing and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 3 and shall be deemed properly served, given, or made: (a) upon delivery if delivered in person, (b) five (5) days after deposit in the mail if sent by first class United States mail, postage prepaid, (c) upon receipt of confirmation by return facsimile if sent by facsimile, or (d) upon delivery if delivered by prepaid commercial courier service. A Party must update the information in Schedule 3 relating to its address as that information changes. Such changes shall not constitute an amendment to this Agreement.

11.3 Waivers

Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or matter arising in connection with this Agreement. Any delay short of the statutory period of limitations, in asserting or enforcing any right under this Agreement, shall not constitute or be deemed a waiver of such right.

11.4 Governing Law and Forum

Subject to Section 11.5, this Agreement shall be deemed to be a contract made under and for all purposes shall be construed in accordance with the laws of the State of California. The Parties irrevocably consent that any legal action or proceeding arising under or relating to this Agreement shall be brought in any of the following forums, as appropriate: a court of the State of California or Arizona or any federal court of the United States of America located in the State of California or Arizona or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission. No provision of this Agreement shall be deemed to waive the right of any Party to protest, or challenge in any manner, whether this Agreement, or any action or proceeding arising under or relating to this Agreement, is subject to the jurisdiction of the Federal Energy Regulatory Commission.

11.5 Consistency with Federal Laws and Regulations

(a) Nothing in this Agreement shall compel any person or federal entity to: (1) violate federal statutes or regulations; or (2) in the case of a federal agency, to exceed its statutory authority, as defined by any applicable federal statutes, regulations, or orders lawfully promulgated thereunder. If any provision of this Agreement is inconsistent with any obligation imposed on any person or federal entity by federal law or regulation to that extent, it shall be inapplicable to that person or federal entity. No person or federal entity shall incur any liability by failing to comply with any provision of this Agreement that is inapplicable to it by reason of being inconsistent with any federal statutes, regulations, or orders lawfully promulgated thereunder; provided, however, that such person or federal entity shall use its best efforts to comply with the CAISO Tariff to the extent that applicable federal laws, regulations, and orders lawfully promulgated thereunder permit it to do so.

(b) If any provision of this Agreement requiring any person or federal entity to give an indemnity or impose a sanction on any person is unenforceable against a federal entity, the CAISO shall submit to the Secretary of Energy or other appropriate Departmental Secretary a report of any circumstances that would, but for this provision, have rendered a federal entity liable to indemnify any person or incur a sanction and may request the Secretary of Energy or other appropriate Departmental Secretary to take such steps as are necessary to give effect to any

provisions of this Agreement that are not enforceable against the federal entity.

11.6 Severability

If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.

11.7 Section Headings

Section headings provided in this Agreement are for ease of reading and are not meant to interpret the text in each Section.

11.8 Amendments

This Agreement and the Schedules attached hereto may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that are subject to FERC approval shall not take effect until FERC has accepted such amendments for filing and has made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO or the Host Balancing Authority to unilaterally make application to FERC for a change in the rates, terms and conditions of this Agreement under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.


11.9 Counterparts

This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.

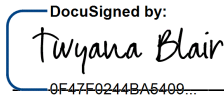


IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date first written above.

California Independent System Operator Corporation

By: 
0971A84CB55B4B8...
Name: Eric Schmitt
Title: VP, Operations
Date: 8/9/2016

Arizona Public Service Company

By: 
0F47F0244BA6409...
Name: Twyana Blair
Title: Manager, Balancing Authority
Date: 8/9/2016



SCHEDULE 1

[NOT USED]

SCHEDULE 2

DESCRIPTION OF DYNAMICALLY SCHEDULED SYSTEM RESOURCES

[Section 4]

System Resource ID	NGILAA_5_SDGDYN
System Resource Scheduling Limit at the Associated CAISO Intertie ¹	57MW
Associated CAISO Intertie ID	NRTHGILA500
Generating Resource(s) Comprising the System Resource, with General Location Information	Yuma Cogen is a 55 MW (nominal) combined cycle gas turbine cogeneration facility in Yuma, AZ. The facility is located at 280 North 27th Drive, Yuma, AZ.
Host Balancing Authority Area	Arizona Public Service Company
Intermediary Balancing Authority Area(s)	None

¹ This value represents the maximum amount of power that can be dynamically scheduled by the System Resource into the CAISO Balancing Authority Area, and is subject to limitation by congestion on the scheduling path or system emergencies that could reduce or eliminate the ability to schedule and transfer power from time-to-time.



SCHEDULE 3

NOTICES

[Section 11.2]

Host Balancing Authority

Name of Primary Representative: Twyana Blair
 Title: Manager, Balancing Authority
 Company: Arizona Public Service
 Address: 2124 W. Cheryl Ave., M.S. 3262
 City/State/Zip Code: Phoenix, AZ 85021
 Email Address: twyana.blair@aps.com
 Phone: (602) 250-1128
 Fax No: (602) 371-6039

Name of Alternative Representative: Michael W. Adams
 Title: Manager, Trans Ops & Administration
 Company: Arizona Public Service
 Address: 2124 W. Cheryl Ave., M.S. 3262
 City/State/Zip Code: Phoenix, AZ 85021
 Email Address: michaelw.adams@aps.com
 Phone: 602-371-7427
 Fax No: 602-371-6039



CAISO

Name of Primary

Representative: Regulatory Contracts
Title: N/A
Address: 250 Outcropping Way
City/State/Zip Code: Folsom, CA 95630
Email address: RegulatoryContracts@caiso.com
Phone: (916) 351-4400
Fax: (916) 608-5063

Name of Alternative

Representative: Christopher J. Sibley
Title: Manager, Regulatory Contracts
Address: 250 Outcropping Way
City/State/Zip Code: Folsom, CA 95630
Email address: csibley@caiso.com
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