Balancing Authority of Northern California

Regular Meeting of the Commissioners of BANC

2:00 P.M. Wednesday, February 22, 2017 915 L Street, Suite 1480 Sacramento, CA 95814

Balancing Authority of Northern California NOTICE OF REGULAR MEETING AND AGENDA

Notice is hereby given that a regular meeting of the Commissioners of the Balancing Authority of Northern California (BANC) will be held on **February 22, 2017** at **2:00 p.m.**, at **915 L Street, Suite 1480, Sacramento, CA 95814**.

This meeting shall also consist of a simultaneous teleconference call at the following location:

City of Shasta Lake 4332 Vallecito Street, City of Shasta Lake, CA 96019

AGENDA

- 1 Call to Order.
- 2 Matters subsequent to posting the Agenda.
- **Public Comment** any member of the public may address the Commissioners concerning any matter on the agenda.
- 4 Consent Agenda
 - A. Minutes of the Regular Commission Meeting held on December 28, 2016.
 - B. BANC Operator's Report.
 - C. Compliance Officer's Report.
 - D. PC Committee Report.
 - E. General Manager's Report.

5 Regular Agenda Items – Discussion and Possible Action

- A. Consider and possibly approve Resolution 17-02-01 2017 Participation Percentages.
- B. Update on EIM implementation.
 - Consider and possibly approve Resolution 17-02-02 EIM Implementation Agreement.
 - ii. Consider and possibly approve Resolution 17-02-03 EIM Participation Agreement.
- C. Consider and possibly approve Resolution 17-02-04 BANC/SMUD Dynamic Scheduling Operating Agreement.
- D. Operations Update high hydro year update.
- E. Strategic Planning update.
- F. Cyber Security Mutual Assistance Agreement update.
- G Notice of FPPC electronic filing requirements for public officials.
- **Closed Session:** Conference with legal counsel significant exposure to litigation pursuant to subdivision (c) of Cal. Gov't Code § 54956.9; three cases.
- 7 Adjournment

Accessible Public Meetings - Upon request, BANC will provide written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in public meetings. Please send a written request, including your name, mailing address, phone number and brief description of the requested materials and preferred alternative format or auxiliary aid or service at least 3 days before the meeting. Requests should be sent to: Bruce McLaughlin, 915 L Street, Suite 1480, Sacramento, CA 95814 or to mcLaughlin@braunlegal.com.

Balancing Authority of Northern California

Consent Agenda Items

- A. Minutes of the 12/28/2016 BANC Regular Meeting.
- **B. BANC Operator's Report**
- C. Compliance Officer's Report
- **D. PC Committee Report**
- E. General Manager's Report

MINUTES OF THE REGULAR MEETING OF THE COMMISSIONERS OF THE BALANCING AUTHORITY OF NORTHERN CALIFORNIA (BANC)

December 28, 2016

On this date, a Regular Meeting of the Commissioners of the Balancing Authority of Northern California (BANC) was held at 915 L Street, Suite 1480, Sacramento, CA 95814.

This meeting also consisted of a simultaneous teleconference call at the following locations:

City of Shasta Lake Modesto Irrigation District

4332 Vallecito Street, City of Shasta Lake, CA 96019 1231 11th Street, Modesto, CA 95354

Roseville Electric City of Redding Electric Dept.

2090 Hilltop CircleRoseville, CA 95747 777 Cypress Ave, Redding, CA 96001

SMUD Trinity Public Utilities District

Customer Service Center Building, Rubicon Room 26 Ponderosa Lane 6301 S Street, Sacramento, CA 95817 Weaverville, CA 96093

Voting Representatives Present:

| Member Agency | Commissioner / Liaison |
|---------------------------------------|--------------------------------|
| Modesto Irrigation District | James McFall |
| City of Redding | Barry Tippin (Chair) |
| City of Roseville | Shawn Matchim |
| Sacramento Municipal Utility District | John Olson (temporary) |
| City of Shasta Lake | Tom Miller |
| Trinity Public Utilities District | Paul Hauser |
| Western Area Power Administration | Absent (Kevin Howard, present) |

- 1. <u>Call to Order:</u> Chair Tippin called the meeting to order at 2:02 p.m. and roll call was taken of Commissioners.
- 2. <u>Matters Subsequent to Posting the Agenda</u>: None.
- 3. Public Comment: Chair Tippin invited comments from the public and none were given.
- 4. <u>Consent Agenda</u>: Mr. McFall moved, Mr. Miller seconded, and the Commission unanimously approved the Consent Agenda items comprised of the: (A) BANC Operator's Report; (B) Compliance Officer's Report; and (C) General Manager's Report.
- 5. Regular Agenda Items:
 - A. Mr. Shetler led a discussion on the draft EIM Implementation Agreement that was prepared by the CAISO. A draft will be presented for review by the Commission in

MINUTES OF THE REGULAR MEETING OF THE COMMISSIONERS OF THE BALANCING AUTHORITY OF NORTHERN CALIFORNIA (BANC)

February. Additionally, an RFP is being developed for consulting help for: (a) Project management; (b) evaluating software systems that may be impacted; and (c) reviewing possible process flow changes for SMUD under EIM. Spring of 2019 is the expected golive date. The BANC Resources Committee finalized a BANC EIM Evaluation Report ("Report") that included analysis of the work done by E3 and GridSME. Mr. Tippin moved, Mr. Matchim seconded, and the Commission unanimously accepted the Report.

- B. Mr. Shetler provided an update on the PA/PC agreements and implementation. The executed agreements have already been sent to Members. The first meeting of the PC Committee was held on December 20.
- C. Mr. McFall moved, Mr. Matchim seconded, and the Commission unanimously approved Resolution 16-10-08 *Dynamic Transfer Balancing Authority Operating Agreement Amendment 1*.
- D. Mr. Shetler requested all interested Members to provide contact information for their designated representatives to the cybersecurity working group.
- E. Mr. Braun and Mr. Shetler provided an update on the CAISO Regionalization efforts, which appear to be coming to a "grinding to a halt" with respect to PacCorp's integration. Continuing issues being discussed include governance, resource adequacy, and carbon emission treatment.
- F. Mr. Miller moved, Mr. Hauser seconded, and the Commission unanimously approved Resolution 16-10-09 *Resolution Setting the Regular Meeting Dates for 2017*.
- 6. <u>Closed session:</u> Conference with legal counsel significant exposure to litigation pursuant to subdivision (c) of Cal. Gov't Code § 54956.9; one case. Upon returning to open session, it was reported that no action was taken during closed session.

| Bruce McLaughlin, Secretary |
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| Minutes approved on February 22, 2017. |
| The meeting was adjourned at 2:48 p.m. |



BALANCING AUTHORITY OF NORTHERN CALIFORNIA

P.O. BOX 15830 • D109 • SACRAMENTO • CA 95852 -1830

TO: **BANC Commission**

RE: **BANC Operator Report for January 2017**

Operations:

- Normal BA operations
- No significant BA issues
- NWPP
 - 0 contingencies requiring activation of NWPP
 - o 0 MW average generation lost
 - o 0 MW maximum generation lost
 - o All recoveries within 0 minutes
- USF
 - 6 of 31 days with instances of USF mitigation procedure utilized
 - 0 days on Path 66
 - No operational impact on BANC

Monthly Notes:

No additional notes for January 2017

Compliance Officer's Report BANC Commission Meeting February 2017

The following summarizes routine issues for the Commission's information and consideration. Any major issues or action items will be identified separately on the Commission agenda for action.

BA Compliance Issues:

- No significant operational Balancing Authority compliance events occurred.
- All required BA compliance reports and operating data were submitted to WECC.
- Routine periodic compliance reviews of selected BA operational actions and data confirm that all standard requirements reviewed are being met or exceeded.
- The Planning Coordinator (PC) Registration application for BANC was officially submitted to WECC and is now being reviewed by WECC staff. Per BANC's implementation plan, BANC will be registered as a PC immediately; however, BANC will have no compliance obligations until January 2018.
- BANC submitted two Self Logs for Q4, 2016 on February 1, 2017. The two self-logged issues are summarized as follows:
 - 1) <u>CIP-006 R5:</u> Loss of Escort for a visitor in a High Impact Control Center
 - 2) <u>INT-006-4</u>: E-tag automatic approved an invalid 5 MW tag. This is the first Operational Standard that BANC has self logged, and pertains to a standard that WECC has not previously conducted an inherent risk assessment on, nor audited BANC on, which are typically prerequisites for self logging an item. Due to the minimal risk, single event, and immediate mitigation taken, we have submitted this as a self-log issue, though there is a possibility WECC may treat this differently.

BANC MCRC:

The Members Compliance Review Committee (MCRC) met on January 23, 2017.
 MCRC members received written report of all monthly compliance assurance activities and investigations. Reports from compliance event reviews that resulted in findings of full compliance with applicable standards are also shared with BANC members on an informational basis.

BANC PC Committee Chair's Report February 2016

The following summarizes Planning Coordinator-related issues for the Commission's information and consideration. Any major issues or action items will be identified separately on the Commission agenda for action.

BA PC Committee Issues:

- BANC/SMUD PC Agreement and BANC PC Participant Agreements have been finalized and executed.
- PC Committee held its first formal meeting on 12/20/2016 to discuss organizing for the effort.
- Discussed the BANC PC Implementation Plan with WECC. They are in agreement with the plan and the implementation schedule for full compliance by 1/1/2018. One change is that WECC will register BANC as the PC for the footprint effective 1/1/2017 to allow the participants to have a PC. However, BANC will not be subject to any PC enforcement until 1/1/2018.
- SMUD staff visited Modesto Irrigation District and the City of Redding on 1/23/17 and 1/25/17 respectively to meet and learn from their counterparts in order to become more familiar with the MID and REU transmission systems.
- The PC Committee will meet next on 1/22/17 at 9:00am via WebEx to discuss TPL-001-4 Requirement 7 (joint PC & TP study responsibilities) and the schedule for the BANC PC Planning Assessment.

GM Report BANC Commission Meeting 1/2017

The following summarizes routine issues for the Commission's information and consideration. Any major issues or action items will be identified separately on the Commission agenda for action.

Outreach Efforts:

Refer to GM outreach report provided under separate distribution. In addition, here are some other noteworthy items:

TID

We continue to dialogue with TID regarding potential joint efforts on EIM participation. TID provided feedback that they are interested in having continued dialogue with BANC on potential EIM participation and possible joint use of the SMUD/BANC EMS.

LADWP/Seattle City Light/SRP

Dialogue continues with these entities regarding EIM participation. Though LADWP made its announcement of participating in the EIM and has requested a more detailed discussion with BANC, we have not heard any more on their status. Seattle City Light received approval in November from the City Council to proceed with participation in EIM, though the City Council is requesting more details on the cost/benefits study for Seattle City Light. They signed the EIM Implementation Agreement with CAISO in December with a forecasted "go-live" date of spring 2019. SRP management has determined to recommend participation in EIM to its Board in February. They are currently forecasting "go-live" in spring 2020.

POU Western Markets Initiative

BANC continues to participate in this effort, which is being coordinated by APPA.

Market Initiatives:

ADI/FRSG

With the launch of the new BAAL approach the BANC has suspended participation in ADI as of June 1, 2016. An evaluation will be done as to whether the two efforts can work together, but we are not planning on participating in ADI in 2017.

BANC has also initiated working with the NWPP on a joint effort for meeting the new frequency reserve requirements of NERC BAL-003, which was phased-in late 2016. Implementation results continue to look good.

EIM Participation

Staff is reviewing the draft EIM Implementation Agreement that was provided by the CAISO. In addition, BBMS has developed a draft of the EIM Participation Agreement that will be entered in to by BANC and SMUD. It is currently planned to bring both to these agreements to the February Resource Committee meeting for review and comment and then to the full Commission for possible action at its February meeting. BANC and SMUD have worked together to develop an RFP for project management support for the EIM Implementation Effort. The BANC EIM Oversight Group held a meeting with the CAISO on 1/26/17 to provide an overview of BANC/WAPA Operations 101. This was well received by the CAISO and will help with both the current Phase 1 effort as well as preparing for a possible Phase 2.

With respect to the CAISO EIM Regional Issues Forum (RIF), the next face-to-face meeting is scheduled for March 1, 2017, in Las Vegas. Based upon feedback from the EIM Governing Body, they are very interested in having the RIF play a prominent role in stakeholder outreach for EIM. As I noted previously, due to BANC planning on becoming an EM Entity, I will be rolling off the RIF as a liaison for the Adjacent BA Sector.

WAPA:

Market Engagement

We are working with WAPA on integrating them in to the EIM implementation discussions. This included an EIM Phase 2 discussion with WAPA, MID, Redding, and Roseville. Based upon these discussions, the group has developed a set of "principles" for a possible Phase 2 and is seeking additional analysis by GridSME on how potential EIM participation will impact each of their operations.

Peak Reliability:

Aliso Canyon Meeting

Indications are that the procedures put in place by Peak/CAISO/LADWP/SCE worked well over the summer. There was no need for natural gas curtailments or withdrawals from the limited supply in the Aliso Canyon facility. Peak has completed the winter assessment assuming limited access to storage in Aliso Canyon. Initial analyses indicate that the LA Basin should be able to withstand a worst-case 1/10-year winter from an electrical standpoint, assuming no transmission outages and support available from neighboring BAs. They are now focusing on assessments for summer 2017. Public meetings are scheduled in the near future to start the process for determining if Aliso Canyon can "restart".

Peak Interest in Overseeing Congestion Management for Western Interconnection

Peak provided more clarification on this concept at the December Board meeting. The focus is on assisting the BAs and TOPs along with Peak in using the new Enhanced Curtailment Calculator (ECC) tool to better manage congestion in the Interconnection. Peak made it clear that they only intended to retain their role from a reliability perspective and **would not** perform economic re-dispatch functions. More work will be involved in defining this further.

WECC

WECC continues to seek appointees to the new Reliability Assessment Committee (RAC).

At the December WECC Board meeting, WECC and NERC discussed the recent Reliability Assessment report that was issued in November (a copy has been provided to the BANC Operations Committee members). The report was a follow-up from the action plans completed from the September 2011 SW Outage. The report has raised several concerns about the "reliability culture" in the Western Interconnection, including concerns about adequate real-time contingency analysis beyond a BA/TOP boundary, need for on-shift engineering support, and recognition of the role of Peak as the RC. It is expected that WECC will be taking a lead role in developing a response plan for the Western Interconnection.

WECC has also announced that their next Reliability Summit will be held May 2-3, 2017, in Portland, OR.

CDWR Delta Pumping Load:

BANC is coordinating with SMUD, CDWR, WAPA, and the CAISO regarding how the construction and pumping loads and ancillary services will be provided for this project. We have received informal feedback that CDWR intends to use SMUD for transmission service at the north end of the project and WAPA for the south end, with a formal decision expected in March 2017.

Strategic Initiatives:

Refer to the 2015 Strategic Initiatives January update list, which I plan on closing out with this report, and the 2017 Strategic Initiatives update, which are attached to this report.

Balancing Authority of Northern California

Agenda Item 5.A

Resolution 17-02-01 2017 Participation Percentages

Balancing Authority of Northern California Resolution 17-02-01

ACCEPTING AND ADOPTING THE BANC MEMBER PARTICIPATION PERCENTAGES FOR 2017

WHEREAS, the Balancing Authority of Northern California ("BANC") was created by a Joint Powers Agreement ("JPA") to, among other things, acquire, construct, maintain, operate, and finance Projects; and

WHEREAS, JPA Section 4.23 defines "Participation Percentage" as the meaning set forth in JPA Section 10 relating to the rights and responsibilities of each Member and is determined by the methodology set forth in Appendix 1 of the JPA; and

WHEREAS, JPA Section 10.1 requires that Participation Percentages shall be: (a) calculated for each Member in the proportion that its annual retail load within the BANC System bears to the aggregated loads of all Members; and (b) based on the Member's retail load in the previous year as reported to the federal Energy Information Agency; and

WHEREAS, Appendix 1 of the JPA requires that the Participation Percentage shall be the average percentage amount rounded to the nearest 0.10% and shall be updated each December by the Controller based upon available data from the previous calendar year and further adjusted to total 100% based on the Members with the largest unrounded amount; and

WHEREAS, Appendix 1 to the JPA requires that the updated values shall be revised annually and effective as of January 1 for the subsequent year if there is a change in the computed Rounded Participation Percentage of more than 0.2% in any Member's share from the currently effective final rounded Participation Percentage; and

WHEREAS, the BANC Controller has performed the calculations as required by the JPA and has prepared the revised Participation Percentages for 2017.

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Balancing Authority of Northern California Resolution 17-02-01

NOW, THEREFORE, BE IT RESOLVED that the Commissioners of the Balancing Authority of Northern California hereby:

1. Accept the 2017 Participation Percentages, attached hereto as Exhibit A, to be effective January 1, 2017.

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California this 22nd day of February 2017, by the following vote:

| | | Aye | No | Abstain | Absent |
|------------------------|--------------------|-----|----|---------|--------|
| Modesto ID | James McFall | | | | |
| City of Redding | Paul Cummings | | | | |
| City of Roseville | Michelle Bertolino | | | | |
| City of Shasta Lake | Tom Miller | | | | |
| SMUD | Arlen Orchard | | | | |
| TPUD | Paul Hauser | | | | |

| Barry Tippin | Attest by: Bruce McLaughlin |
|--------------|-----------------------------|
| Chair | Secretary |

Balancing Authority of Northern California

Agenda Item 5.B

Memorandum recommending approval of EIM agreements and Dynamic Scheduling agreement

Braun Blaising McLaughlin & Smith P.C.

Attorneys at Law

2/17/2017

To: BANC Commission

From: BANC Counsel

RE: Approval for BANC Agreements

The purpose of this memorandum is to summarize several contracts, which we will be asking the Commission to both approve and authorize the General Manager to execute:

- 1. BANC EIM Implementation Agreement (IA) (with the CAISO)
- 2. BANC EIM Participation Agreement (PA) (with SMUD
- 3. Dynamic Scheduling Operating Agreement (DSOA) (between BANC and SMUD)

The EIM IA and the EIM PA have been reviewed by BANC staff/legal, SMUD staff/legal, and by the members of the BANC EIM Oversight Group (which includes MID and WAPA-SNR representatives), and the BANC Resource Committee. The DSOA has been reviewed by BANC staff/legal and SMUD staff/legal. The agreements are in substantially final form.

1. <u>EIM IA</u>: This agreement describes the implementation plan/milestones and costs associated with BANC becoming an EIM Entity. The milestones are described in Exhibit A of the EIM IA.

The EIM IA is a non-*pro forma* agreement; however, it is largely duplicative of other arrangements with EIM Entities. Because BANC is a public agency, changes were made to address its non-jurisdictional status and other unique aspects. The implementation cost of \$350K (Section 4(a)) is based upon a formula which looks at the overall fixed costs the CAISO incurred to establish the EIM infrastructure (around \$19 million), divided by the reported load of all the EIM-eligible BAs in the WECC (the CAISO has estimated the incremental costs for the remainder of BANC is approximately \$185K). That load-based determinant (\$0.031 per MWh) is multiplied against the peak load reported to WECC by the EIM Entity to come up with an entity-specific charge. In the case of BANC, it only includes SMUD load (11,252,000 MWh). If other BANC members and/or WAPA-SNR join EIM through BANC, they will likely pay a fixed amount based on the same formula. The EIM IA will be filed with FERC by the CAISO; it is the CAISO's belief that FERC can act pursuant to delegation orders in the absence of a quorum at the Commission.

2. <u>EIM PA</u>: This is the project agreement between BANC and the EIM Participant(s). Initially, the agreement is between BANC and SMUD, but it sets up a process for

others to join as well. One issue of note is that the EIM PA establishes that any liability for violations of Reliability Standards applicable to BANC which arise due to EIM participation will be the responsibility of the EIM Participants (Section 12). Without such a provision, liability for violations of Reliability Standards applicable to the BA are spread to all BANC members based upon membership percentages. A similar provision is also included in Section 6 of the DSOA, discussed below. The Agreement also establishes an EIM Committee, which will oversee implementation and develop processes and procedures for EIM integration, ongoing operations, and budget and cost allocation between the BANC and SMUD-only buckets.

The EIM Committee (Section 10) includes a primary voting representative from each of the EIM Participant(s) and the BANC General Manager for purposes of voting. In addition, one representative from among the non-participating BANC members and one representative from WAPA may also serve on the EIM Committee as non-voting members.

The EIM Committee also provides for advisory voting by the non-participating BANC members representative on matters relating to costs potentially applicable to new EIM Participants, discussed below. The advisory vote will be conveyed to the Commission for information and to assist with the Commission discussion and approval process. Matters of cost allocation to BANC will be subject to Commission approval.

Additionally, there is a process for other BANC members and/or WAPA to become new EIM Participants (Section 9). To do so, there will be a Commission-approved assessment, which will account for those EIM Entity (BANC) costs incurred by BANC/SMUD that are not SMUD-specific and can be reasonably assessed to new entrants to recapture some of the EIM infrastructure costs borne initially by SMUD (Section 8.3).

For additional background, there are two other EIM related agreements that will be developed in the future:

- **BANC EIM Entity Agreement** will be developed as part of the EIM effort over the next several months. This defines the EIM operational arrangement between BANC and CAISO.
- BANC EIM Services Agreement will be developed in conjunction with SMUD as
 we define over the next several months the details of the EIM services SMUD will be
 providing to BANC.
- 3. <u>DSOA</u>: This agreement addresses NERC/WECC liability based on SMUD's decision to sell regulation services (via dynamic scheduling, which is BA-to-BA) to the CAISO. Because the sale of regulation to the CAISO involves the exchange of balancing authority ACE obligations, it was determined to be both prudent and equitable to protect other BANC members from any potential penalties or compliance costs that could (albeit extremely unlikely) arise based on this commercial relationship between the CAISO and SMUD. The DSOA addresses this narrow issue. The Commission previously approved the General Manager to execute the amendments to the BANC-CAISO Dynamic Transfer Balancing Authority Operating Agreement (DTBAOA) needed to facilitate these dynamic schedules between BANC and the CAISO. The

General Manager informed the Commission at that time that there would be an additional agreement to address any potential NERC/WECC liability. The DSOA is that agreement.

Commission Action

Based upon thorough vetting with BANC members' staffs and counsel, BANC Counsel recommends that the Commission authorize the General Manger to execute the EIM IA, the EIM PA and the DSOA.

Balancing Authority of Northern California

Agenda Item 5.B.i

Resolution 17-02-02 EIM Implementation Agreement

Balancing Authority of Northern California Resolution 17-02-02

EIM IMPLEMENTATION AGREEMENT

WHEREAS, the Balancing Authority of Northern California ("BANC") was created by a Joint Powers Agreement ("JPA") to, among other things, acquire, construct, maintain, operate, and finance Projects; and

WHEREAS, BANC, its members, and contracted consultants performed a net benefit evaluation of participation in the California Independent System Operator (CAISO) Energy Imbalance Market (EIM); and

WHEREAS, based upon this evaluation, BANC and its members have concluded that the EIM does support meeting BANC's strategic principles with an indicative net benefit for BANC overall and individually for those entities that were evaluated; and

WHEREAS, BANC has determined using a phased approach through a BANC EIM Project would allow BANC and the Sacramento Municipal Utility District (SMUD) to proceed with participation in the EIM; and

WHEREAS, the other BANC members located in the Western Area Power Administration – Sierra Nevada Region (WAPA-SNR) sub-area would be excluded from EIM participation, its costs and benefits, but could join the BANC EIM Project at a later date if they decide to do so.

NOW, THEREFORE, BE IT RESOLVED that the Commissioners of the Balancing Authority of Northern California hereby:

1. Approve the EIM Implementation Agreement, and authorize and direct the General Manager to execute the Agreement.

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California this 22^{nd} day of February 2017, by the following vote:

| | | Aye | No | Abstain | Absent |
|---------------------|--------------------|-----|----|---------|--------|
| Modesto ID | James McFall | | | | |
| City of Redding | Paul Cummings | | | | |
| City of Roseville | Michelle Bertolino | | | | |
| City of Shasta Lake | Tom Miller | | | | |
| SMUD | Arlen Orchard | | | | |
| TPUD | Paul Hauser | | | | |

| Barry Tippin | Attest by: Bruce McLaughlin |
|--------------|-----------------------------|
| Chair | Secretary |

ENERGY IMBALANCE MARKET IMPLEMENTATION AGREEMENT

This Implementation Agreement ("Agreement") is entered into as of February xx, 2017, by and between the Balancing Authority of Northern California, a joint powers authority established pursuant to the laws of the State of California ("BANC"), and the California Independent System Operator Corporation, a California nonprofit public benefit corporation ("ISO"). BANC and the ISO are sometimes referred to in the Agreement individually as a "Party" and, collectively, as the "Parties."

RECITALS

- A. WHEREAS, BANC has determined there is an opportunity to secure benefits for some of BANC's members through improved dispatch and operation of the generation and through the efficient use and continued reliable operation of existing and future transmission facilities within its balancing authority area and desires to participate in the energy imbalance market operated by the ISO ("EIM");
- B. WHEREAS, the ISO has determined there are benefits to ISO market participants through greater access to energy imbalance resources in real-time and through the efficient use and reliable operation of the transmission facilities and markets operated by the ISO, and desires to expand operation of the EIM to include BANC;
- C. WHEREAS, BANC acknowledges that the ISO's rules and procedures governing the EIM are set forth in the provisions of the ISO tariff as filed with the Federal Energy Regulatory Commission ("FERC") and that participation in the EIM requires corresponding revisions to the Open Access Transmission Tariffs ("OATT") of participating transmission service provider(s) located in the BANC balancing authority area and the execution of associated service agreements;
- D. WHEREAS, the ISO acknowledges that BANC, its members and the Western Area Power Adminstration Sierra Nevada Region ("WAPA") located in the BANC balancing authority area footprint, are each non-jurisdictional entities described in section 201(f) of the Federal Power Act, 16 U.S.C. 824(f) and respects BANC's interest in remaining so;
- E. WHEREAS, not all of the entities within the BANC balancing authority area, including WAPA, are able or in a position to participate in the EIM at this time and, therefore, the Parties intend to pursue a phased approach to implementation, beginning with the Sacramento Municipal Utility District ("SMUD"), hereafter referred to as "Project Phase 1," and to continue discussions in parallel with the ISO regarding a subsequent phase or phases for additional BANC member(s) and/or WAPA participation;
- F. WHEREAS, BANC understands that a phased implementation of the EIM in its balancing authority area is premised on SMUD being accounted for separately from other BANC members and transmission service providers in BANC balancing authority

area, including SMUD having separate interchange as represented by e-tags, a separate area control error calculation, and separate revenue quality metering;

- G. WHEREAS, the ISO acknowledges that a phased implementation of the EIM in the BANC balancing authority area may require the filing of a non-conforming EIM Entity Agreement in order to account for participation by less than the whole of the BANC balancing authority area and that the phased implementation will need to address the fact that not all BANC members will see benefits from EIM participation;
- H. WHEREAS, the Parties are entering into this Agreement to set forth the terms upon which the ISO will timely configure its systems for Project Phase 1 to incorporate BANC, beginning with SMUD, into the EIM on or before April 1, 2019 ("Implementation Date"); and
- I. WHEREAS, the Parties acknowledge that this Agreement would need to be amended, or a new agreement executed, to incorporate additional BANC members and/or transmission service providers in the BANC balancing authority area in future EIM phases.

NOW THEREFORE, in consideration of the mutual covenants contained herein, and of other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

AGREEMENT

- 1. Effective Date, Term and Non-Jurisdictional Status.
- (a) This Agreement shall become effective upon the date the Agreement is accepted, approved or otherwise permitted to take effect by FERC, without condition or modification unsatisfactory to either Party ("Effective Date").
- In the event FERC requires any modification to the Agreement or imposes (b) any other condition upon its acceptance or approval of the Agreement, each Party shall have fifteen (15) days to notify the other Party that any such modification or condition is unacceptable to that Party. If no Party provides such notice, then the Agreement, as modified or conditioned by FERC, shall take effect as of the date determined under Section 1(a). If either Party provides such notice to the other Party, the Parties shall take any one or more of the following actions: (i) meet and confer and to determine whether BANC will voluntarily agree to accept any modifications or conditions imposed by such FERC order; (ii) jointly seek further administrative or legal remedies with respect to such FERC order, including a request for rehearing or clarification; or (iii) enter into negotiations with respect to accommodation of such FERC order, provided however, if the Parties have not agreed to such an accommodation within thirty (30) davs after the date on which such FERC order becomes a final and non-appealable order, such order shall be deemed an adverse order and the Parties shall have no further rights and obligations under the Agreement.

- (c) The term of the Agreement ("Term") shall commence on the Effective Date and shall terminate upon the earliest to occur of (1) the date that all necessary OATT revisions of the participating transmission service provider(s) located in the BANC balancing authority area are to take effect and the date FERC permits all necessary revisions to the ISO tariff necessary for the commencement of BANC's participation in the EIM have taken effect; (2) termination in accordance with Section 2 of this Agreement; or (3) such other date as mutually agreed to by the Parties ("Termination Date").
- (d) This Agreement shall automatically terminate on the Termination Date and shall have no further force or effect, provided that the rights and obligations set forth in Recital E and Sections 5 and 6 shall survive the termination of this Agreement and remain in full force and effect as provided therein.
- (e) The ISO acknowledges that BANC, its members and WAPA are each non-jurisdictional entities as described in section 201(f) of the Federal Power Act, 16 U.S.C. 824(f) and respects BANC and its members' interest in remaining so and nothing in this Agreement is intended to create additional FERC jurisdiction for BANC or its members, nor shall it be construed or interpreted in a manner that creates additional FERC jurisdiction for BANC or its members. The ISO will at all times make commercially reasonable efforts to avoid actions that would cause BANC to become subject to FERC jurisdiction that does not already exist with respect to BANC or its members' non-jurisdictional status or its operations or assets.

2. <u>Termination</u>.

- (a) The Parties may mutually agree to terminate this Agreement in writing at any time. In addition, either Party may terminate this Agreement in its sole discretion after conclusion of the negotiation period in Section 2(b) or as provided in Section 2(d) or 2(e) as applicable.
- (b) If either the ISO or BANC seeks to unilaterally terminate this Agreement, it must first notify the other Party in writing of its intent to do so ("Notice of Intent to Terminate") and engage in thirty (30) days of good faith negotiations in an effort to resolve its concerns. If the Parties successfully resolve the concerns of the Party issuing the Notice of Intent to Terminate, the Party that issued such notice shall notify the other Party in writing of the withdrawal of such Notice ("Notice of Resolution").
- (c) At the time the Notice of Intent to Terminate is provided, or any time thereafter unless a Notice of Resolution is issued, BANC may provide written notice directing the ISO to suspend performance on any or all work on the Project Phase 1 for a specified period of time ("Notice to Suspend Work"). Upon receipt of a Notice to Suspend Work, the ISO shall: (1) discontinue work on the Project Phase 1; (2) place no further orders with subcontractors related to the Project Phase 1; (3) take commercially reasonable actions to suspend all orders and subcontracts; (4) protect and maintain the work on the Project Phase 1; and (5) otherwise mitigate BANC's costs and liabilities for the areas of work suspended. The ISO will not invoice BANC pursuant to Section 4(c)

of this Agreement for any milestone payment following the issuance of a Notice to Suspend Work. To the extent a Notice of Resolution is issued pursuant to Section 2(b), the Notice to Suspend Work in effect at the time shall be deemed withdrawn and the ISO shall be entitled to invoice BANC for any milestone completed as specified in Section 4(c) of this Agreement and BANC shall pay such invoice pursuant to Section 4.

- (d) Any time after thirty (30) days from the date of the Notice of Intent to Terminate under Section 2(b), issued by either Party, and prior to the date of a Notice of Resolution, the ISO may terminate this Agreement by providing written notice to BANC that it is terminating this Agreement ("Termination Notice") effective immediately. The ISO may terminate this Agreement under the terms of this Section 2(d) at its sole discretion for any reason.
- (e) Any time after 30 days from the date of the Notice of Intent to Terminate under Section 2(b), issued by either Party, and prior to the date of a Notice of Resolution, BANC may terminate this Agreement by providing written notice to the ISO that it is terminating this Agreement ("Termination Notice") effective immediately. BANC may terminate this Agreement under the terms of this Section 2(e) at its sole discretion for any reason and without further regulatory review or approval.
- (f) In the event this Agreement is terminated by either or both of the Parties pursuant to its terms, this Agreement will become wholly void and of no further force and effect, without further action by either Party, and the liabilities and obligations of the Parties hereunder will terminate, and each Party shall be fully released and discharged from any liability or obligation under or resulting from this Agreement as of the date of the Termination Notice provided in Section 2(d) or 2(e), as applicable, notwithstanding the requirement for the ISO to submit the filing specified in Section 2(g). Notwithstanding the foregoing, the rights and obligations set forth in Sections 5 and 6 shall survive the termination of this Agreement and remain in full force and effect as specified in Sections 5 and 6, and any milestone payment obligation pursuant to Section 4(c) that arose prior to the Termination Notice in accordance with Section 2(d) or 2(e) shall survive until satisfied or resolved in accordance with Section 11.
- (g) The Parties acknowledge that the ISO is required to file a timely notice of termination with FERC.

3. Implementation Scope and Schedule.

- (a) The Parties shall complete the Project Phase 1 as described in Exhibit A, subject to modification only as described in Section 4(e) below.
- (b) The Parties shall undertake the activities described in Exhibit A with the objective of completing the Project Phase 1 and implementing the EIM no later than the Implementation Date, including all milestones listed under Exhibit A for the Implementation Date, subject to modification only as described in Section 3(c) below.

- (c) Either Party may propose a change in Exhibit A or the Implementation Date to the other Party. If a Party proposes a change in Exhibit A or the Implementation Date, the Parties shall negotiate in good faith to attempt to reach agreement on the proposal and any necessary changes in Exhibit A and any other affected provision of this Agreement, provided that any change in Exhibit A, or any change to the Implementation Date, must be mutually agreed to by the Parties. The agreement of the Parties to a change in Exhibit A, or a change to the Implementation Date, shall be memorialized in a revision to Exhibit A, which will then be binding on the Parties and shall be posted on the internet web sites of the ISO and BANC, without the need for execution of an amendment to this Agreement. Changes that require revision of any provision of this Agreement other than Exhibit A shall be reflected in an executed amendment to this Agreement and may be filed by the ISO with FERC for acceptance with respect to the ISO.
- (d) At least once per calendar month during the Term, the Parties' Designated Executives, or their designees, will meet telephonically or in person (at a mutually agreed to location) to discuss the status of the performance of the tasks necessary to achieve the milestones in Exhibit A and the continued appropriateness of Exhibit A to ensure that the Project Phase 1 can meet the Implementation Date. For purposes of this section, "Designated Executive" shall mean the individual identified in Section 8(g), or her or his designee or successor.
- 4. Implementation Charges, Invoicing and Milestone Payments.
- (a) As itemized in Section 4(c) below, BANC shall pay the ISO a fixed fee of \$350,000 for costs incurred by the ISO to implement the Project Phase 1 ("Implementation Fee"), subject to completion of the milestones specified in Section 4(c) and subject to adjustment only as described in Section 4(b).
- (b) The ISO will provide prompt written notice to BANC if the sum of its actual costs through the date of such notice and its projected costs to accomplish the balance of the Project Phase 1 exceed the Implementation Fee. The Implementation Fee shall be subject to adjustment only by mutual agreement of the Parties if the Parties agree to a change in Exhibit A, or a change to the Implementation Date, in accordance with Section 3(c) and the Parties agree that an adjustment to the Implementation Fee is warranted in light of such change.
- (c) Upon completion of the milestones identified in Exhibit A, the ISO shall invoice BANC for the Implementation Fee as follows:
 - i. \$60,000 upon the Effective Date as further described in Section 1 of this Agreement and Exhibit A as Milestone 1;
 - \$60,000 upon deployment into the ISO test environment of the full network model database that includes the topology of the BANC system as further described in Exhibit A as Milestone 2;

- iii. \$60,000 upon ISO promotion of market network model including BANC area to non-production system with BANC connection and data exchange data in advance of market simulation as further described in Exhibit A as Milestone 3;
- iv. \$60,000 upon commencement of EIM market simulation as further described in Exhibit A as Milestone 4;
- v. \$60,000 upon start of parallel operations as further described in Exhibit A as Milestone 5; and
- vi. \$50,000 upon the Implementation Date as further described in Exhibit A as Milestone 6.
- (d) Following the completion of each milestone identified in Section 4(c)(i) through (vi), the ISO will deliver to BANC an invoice which will show the amount due, together with reasonable documentation supporting the completion of the milestone being invoiced. BANC shall pay the invoice no later than forty-five (45) days after the date of receipt. Any milestone payment past due will accrue 12% interest, per annum.
- (e) If a milestone has not been completed as described in Section 4(c)(i), (ii), (iii), (iv), (v) or (vi) and in Exhibit A, as Exhibit A may have been modified in accordance with Section 3(c), the Parties shall negotiate in good faith an agreed upon change to the Project Phase 1 Delivery Dates (as defined in Exhibit A) consistent with Section 3(c) such that the timing of milestone payments in Section 4(c) can be adjusted to correspond to the updated Exhibit A.
- (f) If BANC disputes any portion of any amount specified in an invoice delivered by the ISO in accordance with Section 4(c), BANC shall pay its total amount of the invoice when due, and identify the disputed amount and state that the disputed amount is being paid under protest. Any disputed amount shall be resolved pursuant to the provisions of Section 11. If it is determined pursuant to Section 11 that an overpayment or underpayment has been made by BANC or any amount on an invoice is incorrect, then (i) in the case of any overpayment, the ISO shall promptly return the amount of the overpayment (or credit the amount of the overpayment on the next invoice) to BANC; and (ii) in the case of an underpayment, BANC shall promptly pay the amount of the underpayment to the ISO. Any overpayment or underpayment shall include interest for the period from the date of overpayment, underpayment, or incorrect allocation, until such amount has been paid or credited against a future invoice calculated in the manner prescribed for calculating interest in Section 4(d).
- (g) All costs necessary to implement the Project Phase 1 not provided for in this Agreement shall be borne separately by each Party, which in the case of the ISO will be recovered through rates as may be authorized by its regulatory authorities.
- (h) All milestone payments required to be made under the terms of this Agreement shall be made to the account or accounts designated by the Party which the

milestone payment is owed, by wire transfer (in immediately available funds in the lawful currency of the United States).

5. <u>Confidentiality</u>.

- (a) All written or oral information received from the other Party in connection with this Agreement (but not this Agreement after the ISO files it with FERC) necessary to complete the Project Phase 1 and marked or otherwise identified at the time of communication by such Party as containing information that Party considers commercially sensitive or confidential shall constitute "Confidential Information" subject to the terms and conditions herein.
- If BANC publicly releases BANC's Confidential Information in connection (b) with a public process or a regulatory filing, or if the ISO publicly releases the ISO's Confidential Information in connection with a public process or a regulatory filing, then the information released shall no longer constitute Confidential Information; provided, however, that Confidential Information disclosed under seal (or in such other manner as to be treated confidentially) in connection with a regulatory filing shall retain its status as Confidential Information under this Agreement. In addition, Confidential Information does not include information that (i) is or becomes generally available to the public other than as a result of disclosure by either Party, its officers, directors, employees, agents, or representatives; (ii) is or becomes available to such Party on a non-confidential basis from other sources or their agents or representatives when such sources are not known by such Party to be prohibited from making the disclosure; (iii) is already known to such Party or has been independently acquired or developed by such Party without violating any of such Party's obligations under this Section 5; (iv) is the subject of a mutual written agreement between the Parties, including an agreement evidenced through an exchange of electronic or other communications, with regard to information for discussion at any stakeholder meetings or during the stakeholder process or with any regulatory authority; or (v) is the subject of a mutual written agreement between the Parties, including an agreement evidenced through an exchange of electronic or other communications, to allow for such disclosure and designation as non-confidential or public information on a case-by-case basis in accordance with Section 10 of this Agreement. ISO acknowledges that BANC and its members are subject to the California Public Records Act, Cal. Gov't Code Sections 6250, et seg.
- (c) The Confidential Information will be kept confidential by each Party and each Party agrees to protect the Confidential Information using the same degree of care, but no less than a reasonable degree of care, as a Party uses to protect its own confidential information of a like nature. Notwithstanding the preceding sentence, a Party may disclose the Confidential Information or portions thereof to those of such Party's officers, employees, partners, representatives, attorneys, contractors, advisors, or agents who need to know such information for the purpose of analyzing or performing an obligation related to the Project Phase 1. Notwithstanding the foregoing, a Party is not authorized to disclose such Confidential Information to any officers, employees, partners, representatives, attorneys, contractors, advisors, or agents without (i) informing such officer, employee, partner, representative, attorney, contractor,

advisor, or agent of the confidential nature of the Confidential Information and (ii) ensuring that such officer, employee, partner, representative, attorney, contractor, advisor, or agent is subject to confidentiality duties or obligations to the applicable Party that are no less restrictive than the terms and conditions of this Agreement. Each Party agrees to be responsible for any breach of this Section 5 by such Party or a Party's officers, employees, partners, representatives, attorneys, contractors, advisors or agents, subject to the limitations set forth in Section 6 below.

- (d) In the event that a Party is required by a court of competent jurisdiction or regulatory authority (by law, rule, regulation, order, deposition, interrogatory, request for documents, data request issued by a regulatory authority, subpoena, civil investigative demand or similar request or process) to disclose any of the Confidential Information, such Party shall (to the extent legally permitted) provide the other Party with prompt written notice of such requirement so that the other Party may seek a protective order or other appropriate remedy and/or waive compliance with the terms of this Section 5. In the event that such protective order or other remedy is not obtained, the disclosing Party hereby waives compliance with the provisions hereof with respect to such Confidential Information. In such event, the Party compelled to disclose shall (i) furnish only that portion of the Confidential Information which, in accordance with the advice of its own counsel (which may include internal counsel), is legally required to be furnished, and (ii) unless otherwise prevented by law, exercise reasonable efforts to obtain assurances that confidential treatment will be accorded the Confidential Information so furnished.
- (e) Notwithstanding the foregoing, the Parties acknowledge that they are required by law or regulation to report certain information that could embody Confidential Information from time to time, and may do so from time to time without providing prior notice to the other Party. Such reports may include models, filings, and reports of costs, general rate case filings, cost adjustment mechanisms, any applicable FERC-required reporting, investigations, annual state reports that include resources and loads, integrated resource planning reports, reports to entities such as FERC, the North American Electric Reliability Council ("NERC"), Western Electricity Coordinating Council ("WECC"), or similar or successor organizations, or similar or successor forms, filings, or reports, the specific names of which may vary by jurisdiction, along with supporting documentation. Additionally, in regulatory proceedings or investigations in all state and federal jurisdictions in which they may do business, the Parties will from time to time be required to produce Confidential Information, and may do so without prior notice using its business judgment in compliance with all of the foregoing and including the appropriate level of confidentiality for such disclosures in the normal course of business.
- (f) Each Party is entitled to seek equitable relief, by injunction or otherwise, to enforce its rights under this Section 5 to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision, subject to the limitations set forth in Section 6 below.
- (g) Unless otherwise prevented by law, upon written request by a Party, the other Party shall promptly return to the requesting Party or destroy all Confidential

Information it received, including all copies of its analyses, compilations, studies or other documents prepared by or for it, that contain the Confidential Information in a manner that would allow its extraction or that would allow the identification of the requesting Party as the source of the Confidential Information or inputs to the analysis. Notwithstanding the foregoing, neither Party shall be required to destroy or alter any computer archival and backup tapes or archival and backup files (collectively, "Computer Tapes"), provided that such Computer Tapes shall be kept confidential in accordance with the terms of this Agreement.

- (h) Nothing in this Agreement shall be deemed to restrict either Party from engaging with third parties with respect to any matter and for any reason, specifically including the EIM, provided Confidential Information is treated in accordance with this Section 5.
- (i) This Section 5, Confidentiality, applies for two years (24 months) after the Termination Date or the date of any expiration or termination of this Agreement.

6. <u>Limitation of Liability; Indemnity</u>.

- (a) The Parties acknowledge and agree that, except as otherwise specified in Section 4(f) of this Agreement, neither Party shall be liable to the other Party for any claim, loss, cost, liability, damage or expense, including any direct damage or any special, indirect, exemplary, punitive, incidental or consequential loss or damage (including any loss of revenue, income, profits or investment opportunities or claims of third party customers), arising out of or directly or indirectly related to such other Party's decision to enter into this Agreement, such other Party's performance under this Agreement, or any other decision by such Party with respect to the Project Phase 1.
- To the maximum extent allowed by law, each Party shall indemnify, defend and hold harmless each of the other Party and its officers, directors, employees, agents, contractors and sub-contractors, from and against all third-party claims, judgments, losses, liabilities, costs, expenses (including reasonable attorneys' fees) and damages for personal injury, death or property damage, to the extent caused by the negligence, willful misconduct, or breach of this Agreement of the indemnifying Party, its officers, directors, agents, employees, contractors or sub-contractors related to this Agreement; provided, that this indemnification shall be only to the extent such personal injury, death or property damage is not attributable to the negligence or willful misconduct related to this Agreement or breach of this Agreement of the Party seeking indemnification, its officers, directors, agents, employees, contractors or subcontractors. The indemnified Party shall give the other Party prompt notice of any such claim. The indemnifying Party, in consultation with the indemnified Party, shall have the right to choose competent counsel, control the conduct of any litigation or other proceeding, and settle any claim, subject to the reasonable approval of the indemnified Party. The indemnified Party shall provide all documents and assistance reasonably requested by the indemnifying Party.

(c) The rights and obligations under this Section 6 shall survive the Termination Date and any expiration or termination of this Agreement.

7. Representation and Warranties.

- (a) Representations and Warranties of BANC. BANC represents and warrants to the ISO as of the Effective Date as follows:
- (1) It is duly formed, validly existing and in good standing under the laws of the jurisdiction of its formation.
- (2) It has all requisite corporate power necessary to own its assets and carry on its business as now being conducted or as proposed to be conducted under this Agreement.
- (3) It has all necessary corporate power and authority to execute and deliver this Agreement and to perform its obligations under this Agreement, and the execution and delivery of this Agreement and the performance by it of this Agreement have been duly authorized by all necessary corporate action on its part.
- (4) The execution and delivery of this Agreement and the performance by it of this Agreement do not: (i) violate its organizational documents; (ii) violate any governmental requirements applicable to it; or (iii) result in a breach of or constitute a default of any material agreement to which it is a party.
- (5) This Agreement has been duly and validly executed and delivered by it and constitutes its legal, valid and binding obligation enforceable against it in accordance with its terms, except as the same may be limited by bankruptcy, insolvency or other similar laws affecting creditors' rights generally and by principles of equity regardless of whether such principles are considered in a proceeding at law or in equity.
- (6) All material governmental authorizations in connection with the due execution and delivery of this Agreement, have been duly obtained or made prior to the date hereof and are in full force and effect.
- (b) Representations and Warranties of the ISO. ISO represents and warrants to BANC as of the Effective Date as follows:
- (1) It is duly formed, validly existing and in good standing under the laws of the jurisdiction of its formation.
- (2) It has all requisite corporate power necessary to own its assets and carry on its business as now being conducted or as proposed to be conducted under this Agreement.
- (3) It has all necessary corporate power and authority to execute and deliver this Agreement and to perform its obligations under this Agreement, and the

execution and delivery of this Agreement and the performance by it of this Agreement have been duly authorized by all necessary corporate action on its part.

- (4) The execution and delivery of this Agreement and the performance by it of this Agreement do not: (i) violate its organizational documents; (ii) violate any governmental requirements applicable to it; or (iii) result in a breach of or constitute a default of any material agreement to which it is a party.
- (5) This Agreement has been duly and validly executed and delivered by it and constitutes its legal, valid and binding obligation enforceable against it in accordance with its terms, except as the same may be limited by bankruptcy, insolvency, regulatory authority, or other similar laws affecting creditors' rights generally and by principles of equity regardless of whether such principles are considered in a proceeding at law or in equity.
- (6) All material governmental authorizations in connection with the due execution and delivery of, and performance by it of its obligations under this Agreement, have been duly obtained or made prior to the date hereof and are in full force and effect.

8. General Provisions.

- (a) This Agreement, including Exhibit A to this Agreement, constitutes the entire agreement between the Parties, and supersedes any prior written or oral agreements or understandings between the Parties, relating to the subject matter of this Agreement; provided, that nothing in this Agreement shall limit, repeal, or in any manner modify the existing legal rights, privileges, and duties of each of the Parties as provided by any other agreement between the Parties, or by any statute or any other law or applicable court or regulatory decision by which such Party is bound.
- (b) This Agreement may not be amended except in writing hereafter signed by both of the Parties; provided, however, the Parties may mutually agree to changes in Exhibit A in accordance with Section 4(e).
- (c) Any waiver by a Party to this Agreement of any provision or condition of this Agreement must be in writing signed by the Party to be bound by such waiver, shall be effective only to the extent specifically set forth in such writing and shall not limit or affect any rights with respect to any other or future circumstance.
- (d) This Agreement is for the sole and exclusive benefit of the Parties and shall not create a contractual relationship with, or cause of action in favor of, any third party.
- (e) Neither Party shall have the right to voluntarily assign its interest in this Agreement, including its rights, duties, and obligations hereunder, without the prior written consent of the other Party, which consent may be withheld by the other Party in its sole and absolute discretion. Any assignment made in violation of the terms of this Section 8(e) shall be null and void and shall have no force and effect.

- (f) In the event that any provision of this Agreement is determined to be invalid or unenforceable for any reason, in whole or part, the remaining provisions of this Agreement shall be unaffected thereby and shall remain in full force and effect to the fullest extent permitted by law, and such invalid or unenforceable provision shall be replaced by the Parties with a provision that is valid and enforceable and that comes closest to expressing the Parties' intention with respect to such invalid or unenforceable provision.
- (g) Whenever this Agreement requires or provides that (i) a notice be given by a Party to the other Party or (ii) a Party's action requires the approval or consent of the other Party, such notice, consent or approval shall be given in writing and shall be given by personal delivery, by recognized overnight courier service, email or by certified mail (return receipt requested), postage prepaid, to the recipient thereof at the address given for such Party as set forth below, or to such other address as may be designated by notice given by any Party to the other Party in accordance with the provisions of this Section 8(g):

If to BANC:

Balancing Authority of Northern California 6001 S Street M.S. D-109 Sacramento, CA 95852-1830

Attention: James R. Shetler, General Manager

E-mail: jimshetler@thebanc.org

If to the ISO:

California Independent System Operator Corporation 250 Outcropping Way Folsom, CA 95630

Attention: Petar Ristanovic, Vice President, Technology

E-mail: PRistanovic@caiso.com

Each notice, consent or approval shall be conclusively deemed to have been given (i) on the day of the actual delivery thereof, if given by personal delivery, email sent by 5:00 p.m., or overnight delivery, or (ii) date of delivery shown on the receipt, if given by certified mail (return receipt requested). It is the responsibility of each Party to provide, in accordance with this Section, notice to the other Party of any necessary change in the contact or address information herein.

(h) This Agreement may be executed in one or more counterparts (including by facsimile or a scanned image), each of which when so executed shall be deemed to be an original, and all of which shall together constitute one and the same instrument.

- (i) Nothing contained in this Agreement shall be construed as creating a corporation, company, partnership, association, joint venture or other entity with the other Party, nor shall anything contained in this Agreement be construed as creating or requiring any fiduciary relationship between the Parties. No Party shall be responsible hereunder for the acts or omissions of the other Party.
- (j) The decision to execute an EIM service agreement and participate in the EIM remains within the sole discretion of BANC and the decision whether to continue to offer EIM services (subject to Sections 1(c) and 2) remains within the sole discretion of the ISO.
- (k) Nothing in this Agreement shall preclude a Party from exercising any rights or taking any action (or having its affiliates take any action) with respect to any other project.
- Unless otherwise expressly provided, for purposes of this Agreement, the (I) following rules of interpretation shall apply: (i) any reference in this Agreement to gender includes all genders, and the meaning of defined terms applies to both the singular and the plural of those terms; (ii) the insertion of headings are for convenience of reference only and do not affect, and will not be utilized in construing or interpreting, this Agreement; (iii) all references in this Agreement to any "Section" are to the corresponding Section of this Agreement unless otherwise specified; (iv) words such as "herein," "hereinafter," "hereof," and "hereunder" refer to this Agreement (including Exhibit A to this Agreement) as a whole and not merely to a subdivision in which such words appear, unless the context otherwise requires; (v) the word "including" or any variation thereof means "including, without limitation" and does not limit any general statement that it follows to the specific or similar items or matters immediately following it; and (vi) the Parties have participated jointly in the negotiation and drafting of this Agreement and, in the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as jointly drafted by the Parties and no presumption or burden of proof favoring or disfavoring any Party will exist or arise by virtue of the authorship of any provision of this Agreement.
- 9. Governing Law; Venue. This Agreement shall be governed by, and construed and interpreted in accordance with, the laws of the State of California without regard to its principles of conflicts of laws. Venue for any action hereunder shall be FERC, where subject to its jurisdiction, or otherwise the superior court of Sacramento County, California. 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 FERC.
- 10. <u>Communication.</u> The Parties shall develop a communication protocol for the dissemination of material information associated with the Project Phase 1, which shall be approved by BANC and the ISO.

- 11. <u>Dispute Resolution</u>. Unless otherwise provided herein, each of the provisions of this Agreement shall be enforceable independently of any other provision of this Agreement and independent of any other claim or cause of action. In the event of any dispute arising under this Agreement, the Parties shall first attempt to resolve the matter through direct good faith negotiation between the Parties, including a full opportunity for escalation to executive management within the Parties' respective organizations. If the Parties are unable to resolve the issue within thirty (30) days after such escalation of the dispute, then for matters subject to FERC jurisdiction either Party shall have the right to file a complaint under Section 206 of the Federal Power Act. For all other matters, the parties may pursue litigation in superior court of Sacramento County, California.
- 12. <u>Third Party Agreements</u>. The Parties may engage in discussions with third parties, either jointly or unilaterally, to facilitate the Project Phase 1. Each Party may adopt or modify tariffs or enter into or modify binding agreements between such Party and third parties to implement the approved terms and conditions of the Project Phase 1 or EIM as necessary and appropriate.
- 13. <u>Compliance</u>. Each Party shall comply with all federal, state, local or municipal governmental authority; any governmental, quasi-governmental, regulatory or administrative agency, commission, body or other authority exercising or entitled to exercise any administrative, executive, judicial, legislative, policy, regulatory or taxing authority or power, including FERC, NERC, WECC as applicable; or any court or governmental tribunal; in each case, having jurisdiction over either Party in connection with the execution, delivery and performance of its obligations under this Agreement. This Agreement is not intended to modify, change or otherwise amend the Parties' current functional responsibilities associated with compliance with WECC and NERC Reliability Standards; provided, however, the Parties may enter into separate mutually agreed to arrangements to clarify roles and responsibilities associated with compliance with WECC and NERC Reliability Standards in respect of this Agreement.

IN WITNESS WHEREOF, each of the Parties has caused its duly authorized officer to execute this Implementation Agreement as of the date first above written.

| Ву: _ | Name: James R. Shetler |
|-------|--|
| | Title: General Manager |
| | Title. General Manager |
| CALII | FORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION |
| Ву: _ | |

BALANCING AUTHORITY OF NORTHERN CALIFORNIA

Name:Petar Ristanovic

Title: Vice President, Technology

EXHIBIT A: PROJECT SCOPE AND SCHEDULE

The Project Phase 1 consists of the activities and delivery dates identified in this Exhibit A, implemented in accordance with the Agreement. The Parties have included a schedule for the Implementation Date to coordinate their efforts required for completion of the Project Phase 1 on a milestone track.

The Parties understand that input received from stakeholders during the course of implementing the Project Phase 1, conditions imposed or questions raised in the regulatory approval process, and the activities of the Parties in implementing the Project Phase 1 may cause the Parties to determine that changes in the Project Phase 1 are necessary or desirable. Accordingly, this Exhibit A may be modified in accordance with Section 3(c) of the Agreement.

Each Party is responsible for performing a variety of tasks necessary to achieve the milestones on the scheduled dates specified in the table below ("Project Phase 1 Delivery Dates") and shall plan accordingly. The Parties shall communicate and coordinate as provided in the Agreement to support the planning and execution to complete the Project Phase 1.

| Project Phase 1 Scope and Milestones | Project Phase 1 Delivery Dates supporting April 2019 |
|---|--|
| Detailed Project Phase 1 Management Plan – The Parties will develop and initiate a final project management plan that describes specific project tasks each Party must perform, delivery dates, project team members, meeting requirements, and a process for approving changes to support completion of the Project Phase 1. | September 2017 |
| Milestone 1 – This milestone is completed when the Agreement has been made effective in accordance with Section 1 of the Agreement. | December 2017 |
| Full Network Model Expansion – Full Network Model expansion for BANC and EMS/SCADA, including, proof of concept of export/import of EMS data; complete model into the ISO test environment; complete validation for all SCADA points from BANC; testing of the new market model; and validation of the Outage and State Estimator applications. | July 2018 |

| Milestone 2 - This milestone is completed upon modeling BANC into the ISO Full Network Model through the EMS which will be deployed into a non-production test environment using the ISO's network and resource modeling process. | July 2018 | |
|--|--------------------------|--|
| System Implementation and Connectivity Testing – System requirements and software design, the execution of necessary software vendor contracts, development of Market network model including BANC, allow BANC to connect to a non-production test system. | August 2018 | |
| Milestone 3 - ISO to promote market network model including BANC area to non-production system, and allow BANC to connect and exchange data in advance of Market Simulation. | August 2018 | |
| Construction, Testing and Training in Preparation for Market Simulation - This task includes IT infrastructure upgrades, security testing, training, Day-in-life simulation, and functional testing. | August- December 2018 | |
| Milestone 4a – Start of Connectivity to ISO Testing. | August 2018 | |
| Milestone 4b – Interface testing with minimum data requirements and functional integration testing. ISO will make the test environment available for BANC connectivity testing prior to the delivery date assuming BANC has provided all requisite data and non-production system availability does not conflict with ISO production system Spring Release schedule. | September, 2018 | |
| Milestone 4c –Begin 'Day in the Life' scenario testing | October 2018 | |
| Milestone 4d – Begin Structured Market simulation | December 2018 | |
| Activate Parallel Operations - Beginning February 1, 2019, the ISO will activate a parallel operation environment to practice production grade systems integration as well as market processes and operating procedures in anticipation of the impending BANC activation as an EIM Entity and to confirm compliance with the EIM readiness criteria set forth in the ISO tariff. | February 2019 | |
| Milestone 5 – Start of parallel operations | February 1, 2019 | |

| System Deployment and Go Live – Implementing the Project Phase 1 and going live will include resource registration, operating procedures and updates, execution of service agreements, completion of necessary OATT revisions, applicable managemen/t approvals, the presentation and acceptance of service agreements and tariff changes by applicable governing boards, and completion and filing of a readiness criteria certification in accordance with the ISO tariff. | March 2019 |
|--|---------------|
| Milestone 6 – This milestone is complete upon the first production BANC energy imbalance market trade date. | April 1, 2019 |

Balancing Authority of Northern California

Agenda Item 5.B.ii

Resolution 17-02-03 EIM Participation Agreement

Balancing Authority of Northern California Resolution 17-02-03

EIM PARTICIPATION AGREEMENT

WHEREAS, the Balancing Authority of Northern California ("BANC") was created by a Joint Powers Agreement ("JPA") to, among other things, acquire, construct, maintain, operate, and finance Projects; and

WHEREAS, BANC, its members, and contracted consultants performed a net benefit evaluation of participation in the California Independent System Operator (CAISO) Energy Imbalance Market (EIM); and

WHEREAS, based upon this evaluation, BANC and its members have concluded that the EIM does support meeting BANC's strategic principles with an indicative net benefit for BANC overall and individually for those entities that were evaluated; and

WHEREAS, BANC has determined using a phased approach through a BANC EIM Project would allow BANC and the Sacramento Municipal Utility District (SMUD) to proceed with participation in the EIM; and

WHEREAS, the other BANC members located in the Western Area Power Administration – Sierra Nevada Region (WAPA-SNR) sub-area would be excluded from EIM participation, its costs and benefits, but could join the BANC EIM Project at a later date if they decide to do so.

NOW, THEREFORE, BE IT RESOLVED that the Commissioners of the Balancing Authority of Northern California hereby:

1. Approve the EIM Participation Agreement, and authorize and direct the General Manager to execute the Agreement.

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California this 22^{nd} day of February 2017, by the following vote:

| | | Aye | No | Abstain | Absent |
|---------------------|--------------------|-----|----|---------|--------|
| Modesto ID | James McFall | | | | |
| City of Redding | Paul Cummings | | | | |
| City of Roseville | Michelle Bertolino | | | | |
| City of Shasta Lake | Tom Miller | | | | |
| SMUD | Arlen Orchard | | | | |
| TPUD | Paul Hauser | | | | |

| Barry Tippin | Attest by: Bruce McLaughlin |
|--------------|-----------------------------|
| Chair | Secretary |

ENERGY IMBALANCE MARKET PARTICIPATION AGREEMENT BETWEEN THE

BALANCING AUTHORITY OF NORTHERN CALIFORNIA

AND THE

SACRAMENTO MUNICIPAL UTILITY DISTRICT

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1 PREAMBLE

This Energy Imbalance Market (EIM) Participation Agreement (Agreement) is entered into between the BALANCING AUTHORITY OF NORTHERN CALIFORNIA, a joint exercise of powers agency organized under Section 6500 *et seq.*, of the California Government Code, hereinafter called "BANC," its successors and assigns; and the SACRAMENTO MUNICIPAL UTILITY DISTRICT (SMUD), created and existing under the laws of the State of California and operating an Electric System within the BANC Balancing Authority Area (EIM Participant). BANC or EIM Participant may be referred to herein individually as the "Party" or collectively as the "Parties."

2 EXPLANATORY RECITALS

- **2.1** WHEREAS, BANC was created by a Joint Powers Agreement to, among other things, acquire, construct, maintain, operate, and finance projects;
- 2.2 WHEREAS, BANC has evaluated various market options including the Energy Imbalance Market (EIM) operated by the California Independent System Operator Corporation (CAISO);
- **2.3** WHEREAS, BANC engaged certain consultants for the purposes of providing analytical studies to assess both the cost and the benefits of individual BANC member and Western Area Power Administration-Sierra Nevada Region (WAPA) participation in the CAISO EIM through the BANC Balancing Authority;
- **2.4** WHEREAS the studies produced on behalf of BANC did show net benefits to some BANC members, while also highlighting for some BANC members and WAPA that some of the technical and operational hurdles might take additional time to address;
- 2.5 WHEREAS, based upon these studies and further discussions among BANC members, WAPA and the CAISO, it was also determined that SMUD was in the best position to join the EIM initially and that subsequent phases of EIM implementation would continue to be investigated in order to allow other BANC members and WAPA to join if they determined it was in each of their respective interests to do so upon further study;
- 2.6 WHEREAS, the Commission therefore directed BANC staff to pursue market options as outlined by the BANC General Manager recommendations at the August 31, 2016 BANC Strategic Planning Session, under a phased approach, including that BANC become an EIM Entity and execute all applicable agreements with the CAISO and among BANC and its members as approved by the Commission, and that SMUD, pursuant to approval by its governing Board, might also become the first EIM Participating Resource in the BANC EIM footprint, consistent with the principles that:

- (a) implementation costs will be allocated among members based on cost causation principles;
- (b) expected implementation may be phased in a manner that best effectuates voluntary participation by the loads and resources within the BANC footprint;
- (c) implementation will recognize the current member operational and trading relationships; and
- (d) implementation will recognize the legal and operational requirements of the federal system within the BANC;
- 2.7 WHEREAS, on October 20, 2016 the SMUD Board of Directors unanimously approved the SMUD Chief Executive Officer and General Manager to enter into any agreements necessary to facilitate SMUD's participation in EIM; and
- **2.8** WHEREAS, in the future, additional BANC members and/or WAPA may desire to become Parties to this Agreement, at which time the existing Parties will use reasonable efforts to accommodate new EIM Participants, including the adoption of any amendments to this Agreement deemed necessary to enable such participation.

NOW THEREFORE, in view of the understandings set forth in the recitals above, which the Parties acknowledge and agree are accurate representations of the facts, the Parties agree to the terms of this Agreement that set forth the roles, obligations, and responsibilities of each Party to one another.

3 DEFINITIONS

Unless otherwise defined herein, capitalized terms when used with initial capitalization, whether singular or plural, shall have the meaning set forth in the FERC-approved Glossary of Terms used in NERC Reliability Standards, the NERC Functional Model, the CAISO Tariff, as defined, and the SMUD Open Access Transmission Tariff.

- **3.1** *Balancing Authority* shall mean the responsible entity that integrates resource plans ahead of time, matches generation and load, maintains interchange with other Balancing Authority Areas, and maintains frequency in real time of the electric power systems.
- **3.2** *Balancing Authority Area* shall mean the collection of generation, transmission, and loads within the metered electrical boundaries of the Balancing Authority.
- **3.3** *CAISO* or *ISO* shall mean the "California Independent System Operator Corporation."
- **3.4** *CAISO Tariff* shall mean the CAISO's open access transmission tariff filed with, and approved by, FERC, as that tariff may be amended from time-to-time.
- **3.5** *Commission* shall mean the "BANC Commission," as established in the BANC Joint Powers Agreement, as that agreement may be amended from time-to-time.

- 3.6 Confidential Information shall mean: (a) all written materials marked "Confidential," "Proprietary," or with words of similar import provided to a Party by another Party; and (b) all observations of equipment (including computer screens) and oral disclosures related to a Party's systems, operations, or activities that are indicated as such at the time of observation or disclosure (or is identified as "confidential" or "proprietary" in a letter sent to another Party no later than five (5) calendar days after the disclosure), respectively. Confidential Information includes portions of documents, records, and other material forms or representations that any Party may create, including but not limited to, handwritten notes or summaries that contain or are derived from such Confidential Information.
- **3.7** *Energy Imbalance Market or EIM* shall have the meaning set forth in the CAISO Tariff, as that tariff shall be amended from time-to-time.
- **3.8** *EIM Entity* shall have the meaning set forth in the CAISO Tariff, as that tariff shall be amended from time-to-time. BANC is the EIM Entity under this Agreement.
- **3.9** *EIM Entity Agreement* shall have the meaning set forth in the CAISO Tariff, as that tariff shall be amended from time-to-time. The EIM Entity Agreement is between BANC and the CAISO.
- **3.10** *EIM Implementation Agreement* shall have the meaning set forth in the CAISO Tariff, as that tariff shall be amended from time-to-time. The EIM Implementation Agreement for this participation is between BANC and the CAISO.
- **3.11** *EIM Operator* shall have the meaning set forth in the CAISO Tariff, as that tariff shall be amended from time-to-time. The CAISO is the EIM Operator.
- **3.12** *EIM Participant* shall mean a signatory to this Agreement.
- **3.13** *EIM Participant Cost*(*s*) shall mean the cost responsibility of each EIM Participant to BANC as described in Section 8 of this Agreement.
- **3.14** *EIM Participating Resource* shall have the meaning set forth in the CAISO Tariff, as that tariff may be amended from time to time.
- **3.15** *EIM Participation Agreement* shall mean this Agreement.
- **3.16** *EIM Participation Percentage* shall mean the percentage allocation attributable to each EIM Participant for purposes of EIM Participant Costs in Section 8 and liability for NERC Penalties as set forth in Section 12 to this Agreement.
- **3.17** *EIM Project Manager* shall mean the individual(s) selected by the Parties to oversee and manage BANC EIM implementation activities.
- **3.18** *EIM Project Work* shall mean the multi-phased work plan to implement and operate in the EIM as developed and overseen by the EIM Committee.

- **3.19** *EIM Services* shall mean the services provided by the EIM Services Provider, to BANC, as set forth in the EIM Services Agreement.
- **3.20** *EIM Services Agreement* shall mean the agreement between BANC as the EIM Entity and the EIM Services Provider.
- **3.21** *EIM Services Provider* shall mean the entity providing EIM Services to BANC. SMUD or its successor shall be the EIM Services Provider.
- 3.22 *Electric System* shall mean all properties and assets that are owned or operated by a Party or a EIM Participant, including any interests in joint powers agency facilities, that are used for or pertain to the generation, transmission, transformation, or distribution of electric power, including all additions, replacements, extensions, expansions, improvements, and betterments thereto, and equipment associated therewith. Communication systems and equipment associated with operation of the Electric System shall be included as part of a Party's or an EIM Participant's Electric System. To the extent a Party or an EIM Participant is not the sole owner of an asset or property, only that entity's ownership portion or entitlement in such property shall be considered as a part of its Electric System.
- **3.23** *FERC* shall mean the "Federal Energy Regulatory Commission," or its successor.
- **3.24** *Internal Compliance Program* shall mean the BANC Internal Compliance Program, approved by the Commission, as that program may be amended from time-to-time.
- **3.25** *Internal Compliance Program Charter* shall mean the policy-level document outlining the Internal Compliance Program, which has been adopted by the Commission, as that program may be amended from time-to-time.
- **3.26** *NERC* shall mean the "North American Electric Reliability Corporation," or its successor.
- **3.27** *NWPP* shall mean the "Northwest Power Pool."
- **3.28** *Reliability Standards* shall mean those NERC Reliability Standards and WECC Regional Reliability Standards that have been approved by FERC under Section 215 of the Federal Power Act and WECC applicable Regional Criterion referenced in FERC-approved Reliability Standards.
- **3.29** *Reserve Sharing Group* shall mean the group operated by the NWPP to comply with Reliability Standard BAL-002-WECC-2a, or its successor standard. BANC is a member of the NWPP and a participant in the NWPP Reserve Sharing Group.
- **3.30** *SMUD OATT* shall mean the "Open Access Transmission Tariff" posted on the SMUD Open Access Same-Time Information System website.

3.31 *WECC* shall mean the "Western Electricity Coordinating Council," or its successor.

4 TERM AND TERMINATION

4.1 Effective Date

This Agreement shall be effective upon the date of execution by the Parties (Effective Date).

4.2 Term

This Agreement shall remain in effect from the Effective Date until terminated pursuant to Section 4.3, 4.4, or 4.5 of this Agreement.

4.3 Termination by EIM Participants

Subject to Section 4.5 (Surviving Obligations), any EIM Participant may terminate its participation in this Agreement by providing a notice of termination not less than one (1) year in advance of the date of intended termination.

4.4 Termination of this Agreement

This Agreement shall terminate if: 1) terminated by BANC, 2) if BANC ceases to be a Balancing Authority, 3) the CAISO terminates the EIM Entity Agreement between the CAISO and BANC or 4) there are no remaining EIM Participants. BANC shall provide EIM Participants no less than thirty (30) calendar days written notice prior to seeking a termination decision by the Commission. In the event of a decision by the Commission to terminate this Agreement and there is a successor entity assuming the role of EIM Entity on behalf of the EIM Participant(s), BANC agrees to work with the successor EIM Entity and EIM Participant(s) to coordinate transfer of the EIM Entity responsibilities to a successor EIM Entity. BANC shall also conform its termination with the EIM Participant(s) timelines and procedures required for termination as an EIM Entity as set forth in its EIM Entity Agreement with the CAISO.

4.5 Surviving Obligations

Termination of this Agreement or a Party's participation herein shall not extinguish the obligation of any Party to complete in-progress compliance investigations, implement any resulting corrective mitigating actions and otherwise complete any active compliance process as well as satisfy all other obligations, including any financial responsibilities. In addition, any outstanding financial right or obligation, and any provision of this Agreement necessary to give effect to such right or obligation, shall survive until satisfied, and all limitations of liability provided in this Agreement will survive until all statutes of limitation related to claims that could be made in connection with this Agreement have run.

5 SCOPE OF AGREEMENT

This Agreement, including its Exhibit A (EIM Participation Percentages), Exhibit B (EIM Implementation Agreement) and Exhibit C (EIM Entity Agreement), which are incorporated herein by reference, is for the purpose of establishing BANC as the EIM Entity in support of the EIM Participant(s) and is the sole expression of the Parties. Exhibits may be subject to future revision in accordance with the individual terms contained in that Exhibit and such changes do not constitute an amendment hereto.

6 BANC (EIM ENTITY) OBLIGATIONS

BANC shall be responsible for the following:

- **6.1** Negotiating an EIM Implementation Agreement and an EIM Entity Agreement with the CAISO which reflects the directive of the Commission;
- **6.2** Participating, through the BANC General Manager, on the EIM Committee as set forth in Section 10 of this Agreement and providing support to Committee activities, as needed;
- 6.3 Cooperating with the EIM Participant(s) in the exchange of data and information necessary to support EIM activities;
- **6.4** Providing support and information needed to facilitate EIM examination and/or participation by any proposed new EIM Participant;
- **6.5** Providing regular updates to the Commission, as needed;
- **6.6** Participating, as the EIM Entity, in any relevant stakeholder activities related to EIM;
- **6.7** To the extent reasonably practicable, taking any positions on regulatory actions deemed needed by the Commission to ensure that the interest of BANC, as the EIM Entity, and those of the EIM Participant(s), are reasonably maintained;
- **6.8** Serving as the EIM Entity on behalf of the EIM Participant(s) in accordance with this Agreement, including its Exhibits, as they may be amended from time-to-time;
- 6.9 Ensuring its role as EIM Entity does not adversely affect its compliance with NERC Reliability Standards;
- **6.10** Complying with CAISO Tariff provisions applicable to an EIM Entity; and
- **6.11** Coordinating with the CAISO on EIM activities related to the operation and implementation of EIM.

7 EIM PARTICIPANT OBLIGATIONS

The EIM Participant shall be responsible for the following ("EIM Participant Obligations"):

- 7.1 Negotiating necessary agreements for its EIM participation;
- **7.2** Working collaboratively with BANC in the most transparent means practicable;
- **7.3** Along with BANC, using reasonable efforts to control costs associated with EIM implementation with respect to costs re-assignable to new the EIM Participant(s) under the terms of this Agreement;
- **7.4** Complying with CAISO Tariff provisions applicable to an EIM Participating Resource:
- **7.5** Participating on the EIM Committee, as set forth in Section 10 of this Agreement;
- **7.6** Using reasonable efforts to abide by any procedures, policies or timelines adopted by the EIM Committee;
- 7.7 Paying in a timely manner any cost assessed to the EIM Participant, including but not limited to EIM Participant Costs as set forth in Section 8 and any final costs associated with EIM-related violation(s) of Reliability Standards applicable to the Balancing Authority, as set forth in Section 12 of this Agreement; and
- 7.8 To the extent reasonably practicable, taking any positions on regulatory actions deemed needed to ensure that the interest of BANC, as the EIM Entity, and those of the EIM Participant(s), are reasonably maintained; however, nothing herein requires EIM Participant to take a position that it reasonably believes is contrary to its own interests.

8 EIM PARTICIPANT AND NEW EIM PARTICIPANT COSTS

- **8.1** Each EIM Participant shall pay its share of EIM Participant Costs allocated based on the Participation Percentages set forth in Exhibit A to this Agreement, as that Exhibit A may be amended from time-to-time. EIM Participant Costs comprise the following components:
 - 8.1.1 Costs reasonably incurred by BANC in fulfilling its obligations as an EIM Entity, including, but not limited to:
 - 8.1.1.1 costs incurred by BANC in performance under the EIM Implementation Agreement, including a calculated share of the initial implementation costs incurred by BANC, as well as the full implementation costs for the new entrant;

- 8.1.1.2 costs associated with BANC's obligations under its EIM Entity Agreement;
- 8.1.1.3 costs associated with BANC's obligations under the EIM Services Agreement; and
- 8.1.1.4 ongoing costs, including administrative, legal and regulatory, as reviewed by the EIM Committee and approved by the Commission.
- **8.2** BANC shall calculate the EIM Participant Costs and invoice each EIM Participant to the addresses set forth in Appendix 1 (Notices) to this Agreement. The EIM Participant shall pay this invoice within thirty (30) calendar days of receipt of the invoice. Payments shall be sent by each EIM Participant to the following address:

Balancing Authority of Northern California 6001 S Street M.S. D-109 Sacramento, CA 95852-1830

- 8.3 New EIM Participants shall be required to pay a one-time EIM assessment to BANC, as determined by the EIM Committee and approved by the Commission. This one-time EIM assessment is intended to cover the non-EIM Participant-specific costs incurred by the EIM Entity in order to facilitate EIM participation by entities within the BANC footprint. These costs should be allocated to subsequent BANC member EIM Participants based on their respective load ratio percentage of overall BANC member load. In the case of WAPA, a reasonable share of these costs shall be agreed upon in writing between BANC and WAPA.
 - 8.3.1 The costs collected by BANC shall be allocated back to the existing EIM Participant(s) as determined by the EIM Committee, based upon reasonable accounting and tracking of these costs by BANC and the EIM Participant(s), and consistent with those accounting and tracking metrics as developed and adopted by the EIM Committee.
- **8.4** EIM Participant Costs will be determined through the EIM Committee process, unless otherwise agreed, in writing, between the Parties.
- **8.5** New EIM Participants shall be responsible for their costs incurred by becoming a Participating Resource under the CAISO tariff.

9 NEW EIM PARTICIPANTS

9.1 Any BANC member, or WAPA, may become an EIM Participant by executing an EIM Participation Agreement with BANC, paying BANC a one-time EIM assessment, as determined in accordance with Section 8.3 of this Agreement, and entering into any other arrangements required by the CAISO Tariff and the Commission. BANC and

- the existing EIM Participants will work cooperatively with the proposed new EIM Participant to minimize the impact on the proposed new EIM Participant, other BANC members, WAPA and existing EIM Participants.
- **9.2** Upon the execution of an EIM Participation Agreement with BANC, the new EIM Participant shall be allowed to participate on the EIM Committee in accordance with Section 10 (EIM Committee) of this Agreement.

10 EIM COMMITTEE

10.1 Establishment of EIM Committee

On or promptly after the Effective Date of this Agreement, the Parties shall establish the EIM Committee by appointing EIM Committee members as set forth in Section 10.4.

10.2 General Responsibilities of EIM Committee

The EIM Committee is responsible for BANC EIM oversight, which includes such activities as the following:

- 10.2.1 Establishing roles and responsibilities among BANC, the EIM Participant(s) and the EIM Operator;
- 10.2.2 Reviewing of budgets and costs incurred by BANC, for both EIM implementation and EIM operations;
- 10.2.3 Developing and updating (as necessary), a scope for EIM Project Work according to Section 11.2 of this Agreement.
- 10.2.4 Developing metrics to track and categorize EIM costs for purposes of budgeting and determining the one-time assessment applied to any new EIM Participant(s), as set forth in Section 8.3 of this Agreement;
- 10.2.5 Developing metrics to measure EIM costs, gross benefits and net benefits from actual EIM operations;
- 10.2.6 Providing data and information, as reasonably requested, to BANC members and/or WAPA for the purpose of assessing their potential participation in EIM;
- 10.2.7 Developing comments and positions for stakeholder processes that concern or relate to the EIM;
- 10.2.8 Coordinating relevant data and information as needed for any compliance-related inquiry or investigation, or in the furtherance of any assessment in conjunction with Section 12 (BANC Violations of Reliability Standards Arising from EIM Participation) in this Agreement;

- 10.2.9 Ensuring that required documentation and data transfers among the EIM Participant(s) the EIM Entity and the EIM Operator are occurring and assisting in the development of processes and procedures to aid is such transfers, as needed;
- 10.2.10 Providing regular reports and updates to the Commission on EIM-related activities and operations, as requested;
- 10.2.11 Providing reports, data, and other information as necessary to the CAISO;
- 10.2.12 Assisting in the development of procedures and processes to improve the accuracy and efficiency of data transfers from the EIM Participant(s) to EIM Entity;
- 10.2.13 General oversight of any request for proposals (RFP) or request for offer of services (RFO) by the Parties; and
- 10.2.14 Oversight of the EIM project manager(s), system integrator(s) or other consultants.

10.3 EIM Committee Meetings

The EIM Committee may be convened on an "as needed" basis at the request of BANC or the EIM Participant(s). At a minimum, the EIM Committee shall meet at least once per calendar year.

10.4 EIM Committee Representation and Alternates

Each EIM Participant shall select a primary voting representative and at least one alternate to the EIM Committee and provide those names to BANC. The BANC General Manager will also serve on the EIM Committee as a voting member. In addition, except as provided in Section 10.6.1 (Advisory Voting), one representative from among the non-participating BANC members and one representative from WAPA may also serve on the EIM Committee as non-voting members. The EIM Committee may form subgroups or delegate tasks to subject matter experts as it deems appropriate; provided, however, that any tasks delegated must be overseen and/or approved by the EIM Committee.

10.5 EIM Committee Chair

The EIM Committee may appoint a Chair to conduct meetings. In the absence of an appointed Chair, the BANC General Manager will serve in that role.

10.6 EIM Committee Actions or Decisions

The EIM Committee will seek consensus on any actions or decisions in the furtherance of its responsibilities set forth in this Section. If an action or decision requires voting, each EIM Committee representative shall have one vote. In the event of a tie, an executive from

BANC and the EIM Participant(s) shall attempt to reach consensus. If consensus cannot be reached, the Parties shall mutually agree to a member of the Commission to serve as the tie breaker vote.

10.6.1 Advisory Voting. Notwithstanding the foregoing, the non-participating BANC member representative of the EIM Committee shall be allowed to provide an advisory vote on matters relating to costs/assessments described in Section 8.3 of this Agreement, and, if so requested by the non-voting BANC member of the EIM Committee, that advisory vote, along with any explanation for that vote, shall be provided to the Commission as part of its deliberative process pursuant to Section 8.3 of this Agreement.

10.7 EIM Committee Charter and Procedures

The EIM Committee may adopt a charter and/or procedures in furtherance of its internal administration.

11 EIM PROJECT WORK AND ASSOCIATED PHASES

11.1 General Description of EIM Project Work Phases

It is expected that there will be multiple phases of EIM Project Work to be conducted by the Parties. Phase 1 generally involves the scoping and contracting aspects of the project, including the RFP/RFO processes. Phase 2 involves activities related to implementation and testing of EIM systems, up to and until parallel testing with the CAISO. Phase 3 relates to all activities commencing with parallel testing, go-live and ongoing operations. These phases may be consolidated or expanded as determined by the EIM Committee.

11.2 Development of Scope for EIM Project Work Phases

The Scope of EIM Project Work phases shall be developed by the EIM Committee on an agreed upon schedule. At a minimum, the scope for Phase 1 shall be completed within thirty (30) days of the Effective Date of this Agreement. Schedules for developing the subsequent phases will be agreed upon by the EIM Committee in accordance with the proposed EIM implementation timeline, as set forth the EIM Implementation Agreement Milestones as a guide, as those Milestones may be amended from time-to-time. The EIM Project Work Phases will be updated regularly by the EIM Committee and distributed to the Parties.

12 BANC VIOLATIONS OF RELIABILITY STANDARDS ARISING FROM EIM PARTICIPATION

12.1 Violations

Any potential or actual violations of Reliability Standards applicable to the BANC Balancing Authority which are the result of a failure related to BANC, acting as the EIM Entity, or the EIM Participant's participation in the EIM, shall be addressed in accordance with the processes and procedures adopted in the Internal Compliance Program Charter and the BANC Member Agreement; provided, however, any final costs associated with violation(s) of Reliability Standards applicable to the Balancing Authority arising directly as the result of EIM-related activities of BANC, as the EIM Entity, or the EIM Participant, shall be solely allocated to the Party or Parties listed in Exhibit A (EIM Participation Percentages) to this Agreement, as that Exhibit may be amended from time-to-time.

12.2 Payment of Final Costs

- 12.2.1 Financial Penalties. Final costs associated with this Section 12 shall be paid by the EIM Participant(s) within thirty (30) days of a written request by BANC. Such request shall be in accordance with Section 24 (Notices) of this Agreement. Final costs are those monies which are required to be paid by BANC to NERC based upon a confirmed and final penalty amount in accordance with the NERC Rules of Procedure.
- 12.2.2 Compliance Costs. A mitigation plan or any regulatory directive(s) issued by a Compliance Enforcement Authority associated with this Section 12 shall be followed by the Parties in accordance with that plan or directive; however, the compliance costs incurred by the Parties based upon the mitigation plan or directive shall be the sole responsibility of the EIM Participant(s). BANC shall provide the EIM Participant(s) with an itemization of costs under this Section 12.2.2 as part of BANC's written request to the EIM Participant(s) for payment. Such request shall be in accordance with Section 24 (Notices) of this Agreement.

13 CONFLICT BETWEEN EIM PARTICIPATION AGREEMENT AND OTHER BANC AGREEMENTS

Nothing in this Agreement is intended to alter or amend other BANC agreements or program documents, including, but not limited to, the Joint Exercise of Powers Agreement, the Balancing Authority Operation Services Agreement, the Member Agreement, the NWPP Reserve Sharing Group Agreement, the Internal Compliance Program Charter, the Member Compliance Review Committee Charter, the Planning Coordinator Services Agreement, or the Planning Coordinator Participation Agreement (BANC Agreement(s)). To the extent a conflict arises between a BANC Agreement and this Agreement, the BANC Agreement(s) shall prevail; however, reasonable efforts should be made to reconcile the matter among EIM Participant(s) and BANC.

14 DISPUTE RESOLUTION

Except as provided in Section 10.6 (EIM Committee Actions or Decision), any dispute arising between the Parties regarding performance of their obligations under this Agreement shall be resolved according to the following procedures:

14.1 Informal Settlement

The Parties shall attempt in good faith to resolve any dispute arising out of or relating to this Agreement promptly by negotiations between BANC and an executive of the EIM Participant(s), or, in the event there is more than one EIM Participant, BANC and an executive of each of the EIM Participants. Any Party may give the other Party, or Parties, written notice of any dispute, and within twenty (20) calendar days after delivery of such notice, the executives shall meet at a mutually acceptable time and place and thereafter as often as they reasonably deem necessary to exchange information and to attempt to resolve the dispute. If the matter has not been resolved within sixty (60) calendar days of the first meeting, any of the Parties may initiate a mediation of the controversy in accordance with Section 14.2.

14.2 Mediation

Prior to initiation of litigation, disputing Parties shall initiate a mediation of the controversy. All negotiations, settlement conferences, compromise discussions, and any mediation conducted pursuant to this clause are non-binding, confidential, and shall be treated as compromise and settlement negotiations. Included in such mediation shall be negotiations including executive level management of each of the disputing Parties.

14.3 Retained Rights Under Law and Equity

Absent resolution of any dispute through mediation, each Party retains all rights in a court of law or equity to enforce its rights under this Agreement.

14.4 Continuing Performance Obligations

While a dispute, controversy, or claim is pending, each Party will continue to perform its respective obligations under the Agreement, unless such Party is otherwise entitled to terminate the Agreement in accordance with the terms hereof.

15 AMENDMENT

Except as specified in Appendix 1 and Exhibits A through C, which shall be amended in accordance with the terms set forth therein, this Agreement may only be amended or otherwise modified with the written agreement of the Parties.

16 ASSIGNMENT

This Agreement may be assigned by a Party only with the written consent of the other Parties, which consent shall not be unreasonably withheld.

17 CONFIDENTIALITY

17.1 Treatment of Confidential Information

The Parties recognize and agree that for the purposes of their respective roles in the EIM, complying with the Reliability Standards, and responding to any report or notice of potential violation, the Parties may receive information from each other that has been marked as Confidential Information. Except as set forth herein, the Parties agree to keep in confidence and not to copy, disclose, or distribute any Confidential Information or any part thereof, without the prior written permission of the Party that produced the information.

17.2 Required Disclosure of Confidential Information

As provided in the CMEP, or as required by subpoena, request under the California Public Records Act, or other legal or regulatory process, the Parties may be required to disclose Confidential Information so designated by another Party. Compliance with that subpoena, request under the California Public Records Act, or other legal or regulatory process shall not constitute a breach of this Agreement. If any Party is required to disclose any Confidential Information so designated by any other Party, the disclosing Party shall notify the other Party in writing as promptly as feasible so that the other Party may, if it so chooses and at its own expense, challenge the disclosure or seek a protective order. The disclosing Party shall reasonably cooperate in resolving the dispute.

17.3 Third Parties

Except as set forth herein, each Party shall keep Confidential Information in confidence and shall not disclose such information or otherwise make it available, in any form or manner, to any other person or entity other than its employees, consultants, sub-contractors, sub-contractors' employees, attorneys, and agents without the prior written consent of the Party that produced the information. Each Party will cause each of its employees, contractors, sub-contractors, sub-contractors' employees, attorneys, and agents who will have access to Confidential Information, if any, to acknowledge that they have read this Agreement and agree to abide by all of its terms regarding use and disclosure of Confidential Information. For purposes of this Agreement, Confidential Information may also be shared with the EIM Operator in accordance with the terms of the agreements between each of the Parties and the EIM Operator.

17.4 FERC Jurisdiction

Nothing in this Agreement shall be meant to imply or cede jurisdiction to FERC, NERC, and other regulatory or Compliance Enforcement Authority entities having no or limited jurisdiction over the Parties. FERC, NERC, and other regulatory or Compliance Enforcement Authority entities have limited jurisdiction over the Parties and, by executing this Agreement, no Party is waiving or conceding any defenses it has to assert jurisdictional defenses, including, but not limited to, sovereign immunity, intergovernmental immunities, or lack of subject matter jurisdiction.

18 INDEMNIFICATION

Notwithstanding anything herein to the contrary, BANC shall indemnify, defend, and hold EIM Participants (including their governing bodies, officers, employees, assigns, and agents) harmless from and against any and all claims, demands, liabilities imposed for injury (as defined by Government Code Section 810.8), losses, costs, expenses, penalties, suits, judgments, or damages, arising in whole or in part, directly or indirectly, from performance or non-performance of EIM Participant Obligations set forth in Section 7 of this Agreement.

19 GOVERNING LAW

The rights and obligations of the Parties and the interpretation and performance of this Agreement shall be governed by the laws of the State of California.

20 HEADINGS

The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.

21 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 full force and effect, and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such determination unless a court or governmental agency of competent jurisdiction holds that such provision is not separable from all other provisions of this Agreement.

22 LIMITATION ON LIABILITY

Except for costs for violation(s) of Reliability Standards incurred pursuant to Section 12 of this Agreement, or EIM Participant Costs in accordance with Section 8 of this Agreement, no Party to this Agreement shall be liable to any other Party for any direct, indirect, special, incidental, exemplary, or consequential damages, claims, liabilities, costs or expenses (including attorneys fees and court costs) arising from tort or the performance or non-performance of its obligations under this Agreement regardless of the cause, including intentional action, willful action, gross or ordinary negligence, or an Uncontrollable Force (as defined in Section 25 of this Agreement).

23 NO THIRD PARTY BENEFICIARIES

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

24 NOTICES

Any notice, demand, or request in accordance with this Agreement shall be in writing and shall be deemed properly served, given, or made if delivered in person or sent by first class United States mail, postage prepaid, by electronic facsimile confirmed by the recipient, electronic mail confirmed by the recipient, or by prepaid commercial courier service to a Party via its representative or alternate representative at the address set forth in Appendix 1, unless otherwise provided in this Agreement. Any Party may at any time change the designation or address of a person specified in Appendix 1 upon written notice to the other Parties. Such a change to Appendix 1 shall not constitute an amendment to this Agreement.

25 UNCONTROLLABLE FORCE

No Party shall be considered to be in default in respect to any obligation hereunder if prevented from fulfilling such obligation by reason of an Uncontrollable Force. The term "Uncontrollable Force" for the purpose of this Agreement shall mean any cause beyond the control of the Party affected, including but not limited to flood, earthquake, storm, lightning, fire, epidemic, war, riot, civil disturbance, labor disturbance, sabotage, and restraint by court or public authority, which Uncontrollable Force by exercise of due diligence and foresight, such Party could not reasonably have been expected to avoid. Any Party rendered unable to fulfill any obligation by reason of Uncontrollable Force shall exercise commercially reasonable efforts to remove such inability with all reasonable dispatch.

26 WAIVER

The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by a Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this Agreement. Any waivers at any time by any 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 other matter arising in connection with this Agreement.

27 NO DEDICATION OF FACILITIES

Any undertaking by a Party under any provision of this Agreement is rendered strictly as an accommodation and shall not constitute the dedication of its Electric System or any portion thereof by the undertaking Party to the public, to any other Party, or to any third party, and any such undertaking by a Party shall cease upon the termination of such Party's obligations under this Agreement. The Electric System of a Party shall at all times be, and remain, in the exclusive ownership, possession, and control of that Party, and nothing in this Agreement shall be construed to give any other Party any right of ownership, possession, or control of such Electric System.

28 MULTIPLE COUNTERPARTS

This Agreement may be executed in two or more counterparts, each of which is deemed an original, but all constitute one and the same instrument.

29 SIGNATURE CLAUSE

The signatories to this Agreement represent that they have been appropriately authorized to enter into this Agreement on behalf of the Party for whom they sign.

IN WITNESS THEREOF, the Parties have executed this Agreement and it is effective as of the Effective Date set forth in Section 4.1.

Balancing Authority of Northern California

| By: | |
|--------|--|
| Name: | |
| Title: | |
| Date: | |

Sacramento Municipal Utility District

| By: | | |
|--------|--|--|
| Name: | | |
| Title: | | |
| Date: | | |

Appendix 1 – Notices

Balancing Authority of Northern California

| Name of Primary | |
|-------------------------------------|--|
| Representative: | James R. Shetler |
| Title: | General Manager |
| Company: | Balancing Authority of Northern California |
| Address: | P.O. Box 15830, MS D109 |
| City/State/Zip Code: | Sacramento, CA 95852-1830 |
| Email Address: | jimshetler@thebanc.org |
| Phone: | (916) 870-3774 |
| Fax: | |
| Name of Alternative Representative: | |
| Title: | |
| Company: | Braun Blaising McLaughlin and Smith, P.C. |
| Address: | 915 L Street, Suite 1480 |
| City/State/Zip Code: | Sacramento, CA 95814 |
| Email Address: | braun@braunlegal.com |
| Phone: | 916-326-5812 |
| Fax: | 916-441-4068 |

Sacramento Municipal Utility District

| Name of Primary | |
|----------------------|--|
| Representative: | |
| Title: | |
| Company: | |
| Address: | |
| City/State/Zip Code: | |
| Email Address: | |
| Phone: | |
| Fax: | |
| | |
| Name of Alternative | |
| Representative: | |
| Title: | |
| Company: | |
| Address: | |
| City/State/Zip Code: | |
| Email Address: | |
| Phone: | |
| Fax: | |

EXHIBIT A: EIM Participation Percentages

The sole initial EIM Participant is SMUD.

SMUD's EIM Participation Percentage is 100 percent for purposes of Section 8 (EIM Participant Costs and New EIM Participant Costs) and Section 12 (BANC Violations of Reliability Standards Arising from EIM Participation) of this Agreement.

Amendments

This Exhibit B may be amended as determined by the BANC Commission, without formal amendment to this Agreement. Any amendment to this Exhibit B shall be in writing and transmitted to all Parties to this Agreement within seven (7) business days of the version change contained in the document Version History.

Any changes will be reflected through a change in the Version History. Minor, non-substantive changes will be reflected in $1/10^{th}$ increments to the Version History (e.g., 1.1, 1.2, etc.).

Version History

| VERSION | CHANGE | BY | DATE |
|---------|---------------|-------|----------|
| 1.0 | Initial DRAFT | XXXXX | XX/XX/XX |

EXHIBIT B: BANC EIM Implementation Agreement



EXHIBIT C: EIM Entity Agreement



Balancing Authority of Northern California

Agenda Item 5.C

Resolution 17-02-04 BANC/SMUD Dynamic Scheduling Agreement

Balancing Authority of Northern California Resolution 17-02-04

BANC / SMUD DYNAMIC SCHEDULING AGREEMENT

WHEREAS, the Balancing Authority of Northern California ("BANC") was created by a Joint Powers Agreement ("JPA") to, among other things, acquire, construct, maintain, operate, and finance Projects; and

WHEREAS, SMUD has decided to sell regulation services via dynamic scheduling to the CAISO; and

WHEREAS, BANC has approved certain amendments to the BANC-CAISO Dynamic Transfer Balancing Authority Operating Agreement needed to facilitate dynamic schedules between BANC and the CAISO; and

WHEREAS, the sale of regulation to the CAISO involves the exchange of balancing authority ACE obligations; and

WHEREAS, BANC has determined that it is both prudent and equitable to protect other BANC Members from any potential NERC/WECC penalties or compliance costs that could arise based on this commercial relationship between the CAISO and SMUD.

NOW, THEREFORE, BE IT RESOLVED that the Commissioners of the Balancing Authority of Northern California hereby:

1. Approve the BANC/SMUD Dynamic Scheduling Agreement, and authorize and direct the General Manager to execute the Agreement.

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California this 22nd day of February 2017, by the following vote:

| | | Aye | No | Abstain | Absent |
|---------------------|--------------------|-----|----|---------|--------|
| Modesto ID | James McFall | | | | |
| City of Redding | Paul Cummings | | | | |
| City of Roseville | Michelle Bertolino | | | | |
| City of Shasta Lake | Tom Miller | | | | |
| SMUD | Arlen Orchard | | | | |
| TPUD | Paul Hauser | | | | |

| Barry Tippin | Attest by: Bruce McLaughlin |
|--------------|-----------------------------|
| Chair | Secretary |

DYNAMIC SCHEDULING OPERATING AGREEMENT BETWEEN THE

BALANCING AUTHORITY OF NORTHERN CALIFORNIA AND THE

SACRAMENTO MUNICPAL UTILITY DISTRICT

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1 PREAMBLE

This Dynamic Scheduling Operating Agreement (Agreement) is entered into between the BALANCING AUTHORITY OF NORTHERN CALIFORNIA (BANC), a joint exercise of powers agency (JPA) organized under Section 6500 *et seq.*, of the California Government Code; and the SACRAMENTO MUNICIPAL UTILITY DISTRICT (SMUD), created and existing under the laws of the State of California and operating an Electric System within the BANC Balancing Authority Area. BANC and SMUD are hereinafter referred to individually as "Party" or collectively as the "Parties."

2 EXPLANATORY RECITALS

- **2.1** WHEREAS, BANC and the California Independent System Operator Corporation (CAISO) are signatories to the Dynamic Transfer Balancing Authority Operating Agreement (DTBAOA), which enables dynamic transfer functionality between the BANC and CAISO Balancing Authority Areas.
- **2.2** WHEREAS, BANC and the CAISO have amended Schedule 1 of the DTBAOA to add SMUD system resources that will bid dynamically into the CAISO Balancing Authority Area.
- **2.3** WHEREAS, the CAISO and SMUD have entered into a CAISO pro forma "Dynamic Scheduling Agreement for Scheduling Coordinators" (DSASC) to establish the terms and conditions on which the CAISO and SMUD will discharge their respective duties and responsibilities under the CAISO Tariff.
- **2.4** WHEREAS, the DSASC allows SMUD to submit Dynamic Schedules to the CAISO for regulation service from the SMUD resources specified in Schedule 1 of the DTBAOA, which are located in the BANC Balancing Authority Area.
- 2.5 WHEREAS, the Parties are entering into this Agreement in order to clarify liability for any penalties related to violations of Reliability Standards applicable to the BANC Balancing Authority which are the result of a failure related to the facilitation of the regulation service provided to the CAISO through SMUD System Resources listed in DTBAOA Schedule 1.
- 2.6 WHEREAS, the Parties agree that any penalties, mitigation plan(s) or regulatory directive(s) issued by a Compliance Enforcement Authority associated with violations of Reliability Standards directly related to SMUD's provision of regulation services to the CAISO pursuant to the DTBAOA and DSASC shall be solely the responsibility of SMUD, in accordance with the terms of this Agreement.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, the Parties agree as follows:

3 EFFECTIVE DATE AND TERM

This Agreement shall become effective as of the date of execution by both Parties and shall remain in full force and effect unless subsequently amended or terminated as provided herein.

4 TERMINATION AND SURVIVING OBLIGATIONS

4.1 Termination

This Agreement may be terminated by either Party upon thirty (30) days written notice to the other Party.

4.2 Surviving Obligations

Notwithstanding a Party's right to terminate this Agreement, such termination shall not relieve SMUD of any obligations to pay monetary penalties or to follow a mitigation plan or any other regulatory directive issued by a Compliance Enforcement Authority arising during the term of this Agreement and to the extent associated with violations of Reliability Standards directly related to SMUD's provision of regulation services to the CAISO pursuant to the DTBAOA and DSASC.

5 DEFINITIONS

- **5.1** Balancing Authority shall mean the responsible entity that integrates resource plans ahead of time, matches generation and load, maintains interchange with other Balancing Authority Areas, and maintains frequency in real time of the electric power systems.
- **5.2** Balancing Authority Area shall mean the collection of generation, transmission, and loads within the metered electrical boundaries of the Balancing Authority.
- **5.3** *BANC Member Agreement* shall mean the agreement entered into between the BANC and the members of the BANC JPA which governs certain operational relationships between the BANC and the BANC members, to apportion penalties, and otherwise share the other Balancing Authority obligations.
- **5.4** *CAISO Tariff* shall mean the CAISO's open access transmission tariff filed with, and approved by, FERC, as that tariff may be amended from time-to-time.
- **5.5** *Commission* shall mean the "BANC Commission," as established in the BANC Joint Powers Agreement, as that agreement may be amended from time-to-time.

- **5.6** Compliance Enforcement Authority shall mean FERC, NERC, WECC, and any other agency, court, organization, or other entity or person duly authorized pursuant to law or regulation to: (a) audit or determine compliance with applicable Reliability Standards; or (b) impose, enforce, excuse, or rescind Penalties or otherwise take action binding on one or more Parties with respect to a finding of failure to comply with a Reliability Standard.
- **5.7** *Dynamic Schedule* shall have the meaning set forth in the CAISO Tariff.
- **5.8** *FERC* shall mean the "Federal Energy Regulatory Commission," or its successor.
- **5.9** *Host Balancing Authority Area* shall mean the Balancing Authority in which the dynamic resource is connected to the electric grid. BANC is the Host Balancing Authority Area.
- **5.10** *Internal Compliance Program* shall mean the BANC Internal Compliance Program, approved by the Commission, as that program may be amended from time-to-time.
- **5.11** *Internal Compliance Program Charter* shall mean the BANC policy-level document outlining the Internal Compliance Program, which has been adopted by the Commission, as that program may be amended from time-to-time.
- **5.12** *NERC* shall mean the "North American Electric Reliability Corporation," or its successor.
- **5.13** *Reliability Standards* shall mean those NERC Reliability Standards and WECC Regional Reliability Standards that have been approved by FERC under Section 215 of the Federal Power Act and WECC applicable Regional Criterion referenced in FERC-approved Reliability Standards.
- **5.14** *Scheduling Coordinator* shall have the same meaning as that used in the CAISO Tariff.
- **5.15** *WECC* shall mean the "Western Electricity Coordinating Council," or its successor.

6 VIOLATIONS OF RELIABILITY STANDARDS ARISING FROM REGULATION SALES

6.1 Violations

Any potential or actual violations of Reliability Standards applicable to the BANC Balancing Authority which are the direct result of a failure related to BANC acting in its capacity as the Host Balancing Authority Area in the facilitation of the regulation service provided to the CAISO through SMUD resources listed in DTBAOA Schedule 1, wherein SMUD is the Scheduling Coordinator for the dynamically scheduled resource, shall be addressed in accordance with the processes and procedures adopted in the Internal Compliance Program Charter and the BANC Member Agreement; provided, however, any

final costs to the extent associated with a violation, or violations, of Reliability Standards applicable to the Balancing Authority arising directly as the result of BANC facilitation of the regulation service provided to the CAISO through SMUD resources listed in DTBAOA Schedule 1, shall be solely allocated to SMUD.

6.2 Payment of Final Costs

- 6.2.1 Financial Penalties. Final costs associated with this Section 6 shall be paid by SMUD within thirty (30) days of a written request to SMUD by BANC. Such request shall be in accordance with Section 9 (Notices) of this Agreement. Final costs are those monies which are required to be paid by BANC to NERC based upon a confirmed and final penalty amount in accordance with the NERC Rules of Procedure.
- 6.2.2 Compliance Costs. A mitigation plan or any regulatory directive(s) issued by a Compliance Enforcement Authority associated with this Section 6 shall be followed by the Parties in accordance with that plan or directive; however, the compliance costs incurred by the Parties based upon the mitigation plan or directive shall be the sole responsibility of SMUD. BANC shall provide SMUD with an itemization of costs under this Section 6.2.2 as part of BANC's written request to SMUD for payment. Such request shall be in accordance with Section 9 (Notices) of this Agreement.

7 DISPUTES

Any disputes arising under this Agreement shall be resolved pursuant to Section 9.4 (Dispute Resolution) of the BANC Member Agreement.

8 AMENDMENT

This Agreement may be amended or otherwise modified only with the written agreement of the Parties.

9 NOTICES

Any notice, demand, or request in accordance with this Agreement, shall be in writing and shall be deemed properly served, given, or made if delivered in person or sent by first class United States mail, postage prepaid, by confirmed electronic facsimile, electronic mail confirmed by the recipient, or by prepaid commercial courier service to a Party via its representative or alternate representative at the address set forth in Appendix 1, unless otherwise provided in this Agreement. Any Party may at any time change the designation or address of a person specified in Appendix 1 upon written notice to the other Party designated for such notice. Such a change to Appendix 1 shall not constitute an amendment to this Agreement.

10 GOVERNING LAW

The rights and obligations of the Parties and the interpretation and performance of this Agreement shall be governed by the laws of the State of California.

11 NO THIRD PARTY BENEFICIARIES

No right or obligation contained in this Agreement shall inure to the benefit of any person or entity not a Party to this Agreement. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any third party.

12 ASSIGNMENT

Either Party may make an assignment of its rights and obligations under this Agreement only after obtaining the written consent of the other Party, which consent shall not be unreasonably withheld.

13 SIGNATURE CLAUSE

The signatories to this Agreement represent that they have been appropriately authorized to enter into this Agreement on behalf of the Party for whom they sign.



IN WITNESS THEREOF, the Parties have executed this Agreement and it is effective as of the Effective Date set forth in Section 3.

Balancing Authority of Northern California

| By: | | |
|--------|------------------|--|
| Name: | James R. Shetler | |
| Title: | General Manager | |
| Date: | | |

Sacramento Municipal Utility District

| By: | |
|--------|--|
| Name: | Paul Lau |
| Title: | Chief Grid Strategy and Operations Officer |
| Date: | |

Appendix 1 – Notices

Balancing Authority of Northern California

| Name of Primary | |
|----------------------|--|
| Representative: | James R. Shetler |
| Title: | General Manager |
| Company: | Balancing Authority of Northern California |
| Address: | P.O. Box 15830, MS D109 |
| City/State/Zip Code: | Sacramento, CA 95852-1830 |
| Email Address: | jimshetler@thebanc.org |
| Phone: | (916) 870-3774 |
| Fax: | |

| Name of Alternative | |
|----------------------|---|
| Representative: | C. Anthony Braun |
| Title: | General Counsel |
| Company: | Braun Blaising McLaughlin and Smith, P.C. |
| Address: | 915 L Street, Suite 1480 |
| City/State/Zip Code: | Sacramento, CA 95814 |
| Email Address: | braun@braunlegal.com |
| Phone: | 916-326-5812 |
| Fax: | 916-441-4068 |

Sacramento Municipal Utility District

| Name of Primary | |
|----------------------|--|
| Representative: | Paul Lau |
| Title: | Chief Grid strategy and Operations Officer |
| Company: | Sacramento Municipal Utility District |
| Address: | P.O. Box 15830 MS A312 |
| City/State/Zip Code: | Sacramento, CA 95817-1899 |
| Email Address: | Paul.Lau@smud.org |
| Phone: | (916)-732-6252 |
| Fax: | (916)-732-6562 |

| Name of Alternative: | |
|----------------------|---------------------------------------|
| Representative: | Mark Willis |
| Title: | Director Grid Operation |
| Company: | Sacramento Municipal Utility District |
| Address: | P.O. Box 15830 MS D109 |
| City/State/Zip Code: | Sacramento, CA 95817-1899 |
| Email Address: | Mark.Willis@smud.org |
| Phone: | (916)-732-5451 |
| Fax: | (916)-732-7026 |

This Appendix 1 may be updated as needed by either Party without formal amendment to this Agreement. Any changes will be provided to all individuals listed herein. Email may be used to communicate the revisions.

Balancing Authority of Northern California

Agenda Item 5.E

- 1. 2015-2016 Strategic Work Plan Routine Initiatives
- 2. 2015-2016 Strategic Work Plan Focused Initiatives
- 3. 2016-2017 Strategic Work Plan Routine Initiatives
- 4. 2016-2017 Strategic Work Plan Focused Initiatives

BANC 2015 Strategic Plan - Routine/Ongoing Initiatives - January 2017 Update

| No./Priority | Focus Area | Initiative | Responsibility | Target Due Date | Status |
|--------------|-----------------|--|--------------------|-----------------|---|
| 1 Medium | INDEPENDENCE | Effectively oversee the BA operations. | Jim Shetler | Ongoing | See Monthly Ops, Comp. & GM reports |
| 2 Medium | OUTREACH | Engage in industry forums (WECC, Peak, NWPPA, etc.) | Jim Shetler | Ongoing | Continue attending Peak & WECC Board meetings and NWPP Executive Forum. |
| 3 Medium | | Coordinate with other POU BAs (Ca and regionally) | Jim Shetler | Ongoing | Participated in RIF efforts. Coordinated with CA POU BAs on CAISO issues. |
| 4 Medium | | Outreach to regulatory and legislative bodies on key issues | Jim Shetler/BBMS | Ongoing | Participated in Sen./Ass. stakeholder discussions on ISO expansion. |
| 5 Medium | ASSETS | Identify and implement efforts to improve BANC member asset optimization & renewable integration | Resource Committee | Ongoing | Trading guidelines reissued Real time pilot initiated 9/28/2015. No activity lately. |
| 6 Low | MEMBER SERVICES | Identify and outreach to potential new BANC members | Jim Shetler | Ongoing | Will have follow-on discussions with TID on EIM |
| 7 Low | | Identify potential functions for coordination/consolidation where appropriate | Jim Shetler | Ongoing | BANC/WAPA completed discussions on RTCA coord. COMPLETE |
| | | | | | |

BANC 2015 Strategic Plan - Focused Initiatives - January 2017 Update

| No./Priority | Focus Area | Initiative | Responsibility | Target Due Date | Status |
|--------------|-----------------|------------------------------|----------------------|-----------------|----------------------------------|
| 8 | INDEPENDENCE | Evaluate & recommend market | Jim Shetler/BBMS | 4th Qtr. 2015 | Tracking actions as part of |
| High | | alternatives including: | | 3rd Qtr. 2016 | Strategic Plan. Noticed |
| | | - NWPP MC SCED | | | NWPP MC members BANC |
| | | - NWP MC EBM | | | will not participate in next |
| | | - CAISO EIM | | | phase of CCED. COMPLETE : |
| | | - BANC focused. | | | Commission approved |
| | | | | | phased implementation |
| 9 | | Evaluate & recommend BANC/ | Jim Shetler/WAPA-SNR | 1st Qtr. 2016 | Efficiency discussions |
| Medium | | WAPA-SNR efficiencies. | | | determined no significant |
| | | | | | overlaps. COMPLETE |
| 10 | OUTREACH | Prepare for March 2016 WECC | Jim Shetler/SMUD | 1st Qtr. 2016 | Coordinating with BANC |
| High | | Audit | | | Compliance. COMPLETE |
| | | | | | No findings. |
| 11 | | Conduct CIP V-5 Lessons- | Jim Shetler/SMUD | Jun-15 | COMPLETE |
| Medium | | learned training | | | |
| 12 | ASSETS | -Finalize EMS/EMC/BCC BANC & | Jim Shetler/SMUD | Apr-15 | COMPLETE |
| Medium | | SMUD cost sharing | | | |
| | | -Finalize penalty liability | Jim Shetler/SMUD | 3rd Qtr. 2015 | |
| | | between BANC (BA) & SMUD | | 1st Qtr. 2016 | COMPLETE |
| | | (TOP). Obtain WECC approval. | | | Letter from WECC 3/9/16 |
| 13 | | Develop BANC footprint "IRP" | Resource Committee | 1st Qtr. 2016 | Initiated discussions at |
| Medium | | focused on VERs firming & | | 4th Qtr. 2016 | Resource Committee. |
| | | renewables. | | | Agreed to defer until 2017 |
| 14 | MEMBER SERVICES | Finalize PA/PC arrangement | Jim Shetler/BBMS/ | 4th Qtr. 2015 | COMPLETE |
| High | | with SMUD | SMUD | 2nd Qtr 2016 | |
| | | | | 3rd Qtr 2016 | |

BANC 2017 Strategic Plan - Routine/Ongoing Initiatives - January 2017 Update

| No./Priority | Focus Area | Initiative | Responsibility | Target Due Date | Status |
|--------------|-----------------|--|------------------------|-----------------|--|
| 1 Medium | INDEPENDENCE | Effectively oversee the BA operations. | Jim Shetler | Ongoing | See monthly Operaions, Compliance, & GM Reports |
| 2 Medium | | Develop long-term succession plan for General Manager | Jim Shetler/Commission | 4th Qtr. 2017 | |
| 3 Medium | OUTREACH | Engage in industry forums (WECC, Peak, NWPPA, etc.) | Jim Shetler | Ongoing | Continue attending Peak & WECC Board meetings & NWPP Exec. Forum |
| 4 Medium | | Coordinate with other POU BAs (Ca and regionally) | Jim Shetler | Ongoing | Coordinated with SCL, SRP, LADWP, & TID on EIM |
| 5 Medium | | Outreach to regulatory and legislative bodies on key issues | Jim Shetler/BBMS | Ongoing | Met with FERC Folsom office on EIM. Scheduling meeting with FERC DC. |
| 6 Medium | ASSETS | Identify and implement efforts to improve BANC member asset optimization & renewable integration | Resource Committee | Ongoing | Developing RFP for consult. help on BANC IRP process |
| 7 Low | MEMBER SERVICES | Identify and outreach to potential new BANC members | Jim Shetler | Ongoing | Will have follow-on discussions with TID on EIM |
| | | | | | |

BANC 2017 Strategic Plan - Focused Initiatives - January 2017 Update

| No./Priority | Focus Area | Initiative | Responsibility | Target Due Date | Status |
|--------------|-----------------|---|--------------------|--------------------------------|---|
| 8 High | INDEPENDENCE | Manage implementation of EIM participation effort | Jim Shetler | No earlier than Spring 2019 | ~ Finalizing EIM Implement & Participatn Agreements ~ Held 101 meeting with CAISO ~ Issuing RFP for PM help |
| 9 Medium | OUTREACH | Evaluate opportunities to engage other entities in market development | Jim Shetler | 4th Qtr. 2017 | |
| 10 Medium | ASSETS | Develop BANC footprint "IRP" focused on VERs firming & renewables. | Resource Committee | 4th Qtr. 2017 | Developing RFP for consult support |
| 11 High | MEMBER SERVICES | Implement PA/PC project to be fully compliant | Jim Shetler/SMUD | Dec-17 | ~ PC kickoff mtg 12/20/17 ~WECC concurrence on PC Implement. Agreement |