

The Los Angeles Department of Water and Power (LADWP) employs an electronic Request Solicit Procure (eRSP) online purchasing system for both the posting of Invitation for Bids/Request for Proposals (IFBs/RFPs) and receiving Bid/Proposal documents electronically. Currently the eRSP system is not available. Therefore, all documents and instructions for bidders/proposers related to this procurement will be issued and posted on www.labavn.org. Please note the IFB/RFP documents will not be updated to reflect the changes below regarding the eRSP system.

All questions and inquiries regarding this solicitation shall be sent via electronic mail to the Buyer, Jeremy Devore, at scsp-owerPurchasing@ladwp.com. The e-mail subject line must include the IFB/RFP number and name of the Buyer as follows: "RFP 90478 – Jeremy Devore". All questions are due no later than October 18, 2018, 2:00 PM (PT). Responses to questions and inquiries will be posted on www.labavn.org via an addendum.

While the eRSP System is unavailable, Bid/Proposal responses for this solicitation shall be submitted via hardcopy and mailed or hand-delivered in a sealed envelope by the bid closing due date and time to the Vendor Liaison Center (VLC) at:

Vendor Liaison Center Attn: Jeremy Devore RFP Number: 90478 111 N. Hope Street, Room L-43 Los Angeles, CA 90012-2694

The hardcopy of the Bid/Proposal shall be deemed received by LADWP when it has been physically received by a staff member of LADWP's VLC before the Bid/Proposal closing date and time. It is the responsibility of the bidder/proposer to ensure that the Bid/Proposal is received by LADWP by the specified deadline. Delays due to mail handling, including, but not limited to LADWP's internal mail handling, will not excuse late delivery of the Bid/Proposal. All submittals that are hand-delivered must be time stamped at the VLC public counter in order to be accepted. Late bids will be rejected.

Additionally, LADWP will resume the practice of having public bid openings at the VLC after 2:00 p.m. on the date the bid closes. LADWP will post a Preliminary Bid Recap followed by a Final Bid Recap to www.labavn.org for public information.

Thank you.





for Energy Imbalance Market Merchant & Entity Settlement and Transmission Billing Systems

RFP Number: 90478

Release Date: 09/21/2018

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SECTION ONE INSTRUCTIONS TO PROPOSERS

SECTION ONE – INSTRUCTIONS TO PROPOSERS

1.0 INTRODUCTION

The Los Angeles Department of Water and Power (LADWP) is soliciting proposals from qualified and experienced firms interested in providing Energy Imbalance Market (EIM) Merchant Settlement and EIM Entity Settlement and Transmission Billing System(s). The duration of the contract is expected to be for three (3) years with the budget range of \$1,575,000 to \$2,600,000. LADWP intends to award one (1) or multiple agreement(s). This Request for Proposal (RFP) No. 90478 sets forth the requirements as follows:

Proposers may submit a proposal on either one system or both the EIM Merchant Settlement and/or the EIM Entity Settlement and Transmission Billing System supporting LADWP's participation in California Independent System Operator (CAISO) settlements for EIM activities, as well as provide system training and yearly software maintenance.

Due to conflict of interest rules and competitive bidding principles, awarded consultant and its subcontractors will be prohibited from bidding on or participating in follow-on products, systems or services that may arise from this RFP.

LADWP employs the electronic-Request-Solicit-Procure (eRSP) online purchasing system for both the posting of Bids/RFPs and receiving Bid/Proposal documents electronically.

LADWP expressly reserves the right to reject any or all Proposals, to investigate the qualifications and experience of any Proposer, to reject any conditions or exceptions in any Proposal, to reissue a revised RFP, request a Best and Final Offer (BAFO), negotiate with any, all or none of the proposers, waive informalities, minor irregularities and discrepancies, and award a Contract without interviews, discussions or negotiations. LADWP may award one or more contracts in response to this solicitation. LADWP may cancel this RFP at any time. LADWP is not responsible for any costs incurred by Proposers in the preparation and presentation of Proposals submitted in response to this RFP.

The submission of a Proposal shall constitute an acknowledgement that the Proposer has thoroughly examined and is familiar with the RFP, the attachments, the addenda (if any), and has reviewed and inspected all applicable laws, regulations, ordinances, and resolutions dealing with or related to this procurement. The failure or neglect of a Proposer to examine such documents, laws, regulations, ordinances, or resolutions shall in no way relieve the Proposer from any obligations with respect to the contract issued as a result of this RFP. LADWP fully expects consultants to provide a comprehensive solution that meets or exceeds all requirements as stated in this RFP.

LADWP is the largest municipal water and power utility in the nation. It was established more than 100 years ago to deliver reliable, safe water and electricity to approximately 4 million residents and businesses in Los Angeles.

Currently, LADWP provides its 681,000 water customers and 1.5 million electric customers with quality service at competitive prices. A five-member Board of Water and Power Commissioners establishes policy for LADWP. The Board members are appointed by the Mayor and confirmed by the City Council for five-year terms.

2.0 ACRONYMS AND DEFINITIONS

ABC: Available Balancing Capacity

ADS: Automated Dispatch Signal (EIM Application)

ALFS: Automated Load Forecast System (EIM Application)

API: Automated Programmatic Interface

BAAOP: Balancing Authority Area Operations portal (EIM

Application)

Best and Final Offer (BAFO): A BAFO may be requested from finalists at LADWP's

sole discretion. This process will allow Proposers to make any final adjustments or clarifications to their proposals, and/or submit a revised pricing proposal. If LADWP elects to conduct a best and final process, a separate set of instructions will be provided at that time. Proposers are cautioned that the BAFO is optional, at the sole discretion of LADWP. Therefore, Proposers should not assume that there would be an additional opportunity

to amend their technical or cost proposals.

Bid: Synonymous with proposal

Bidder: The person, firm, corporation, partnership, or joint

venture submitting a proposal in accordance with this

RFP.

Board: The Los Angeles Department of Water and Power Board

of Commissioners.

BSAP: Base Schedule Aggregation Portal (EIM Application)

CAISO: California Independent System Operator

CIDI: Customer Inquiry, Dispute & Information

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CMRI: California Market Results Interface (EIM Application)

Connectivity Testing: Connectivity CAISO Testing (EIM testing phase)

Contract Administrator (CA): Unless specified otherwise in the RFP, the CA shall refer

to an LADWP employee who is assigned to administer contracts and manage projects derived from this RFP.

Contractor: Synonymous with Consultant/Proposer.

Counter Factual: Calculation of alternative that did not come to pass (but

would have absent EIM)

CRR: Congestion Revenue Rights

DA: Day-Ahead

DAME: Day-Ahead Market Enhancement

Declared Emergency: An emergency declared by the General Manager of

LADWP and communicated by the Contract

Administrator or his/her representative, which may include business disruptions and natural disasters.

Director of Supply Chain

Services Division: The Director of Supply Chain Services or the appointed

designee.

DITL: Day In the Life (EIM testing phase)

DMZ environment: Demilitarized zone (sometimes referred to as a perimeter

network) is a physical or logical subnetwork that contains and exposes an organization's external-facing services to an untrusted network, usually a larger network such as

the Internet.

DOT: Dispatch Operating Target

eDAM: Extended Day-Ahead Market Enhancement (CAISO's)

EESC: EIM Entity Scheduling Coordinator

EIM: Energy Imbalance Market

ELAP: EIM Load Aggregation Point

EMS: Energy Management System

eRSP: electronic-Request-Solicit-Procure is LADWP's electronic

bidding system.

ETL: Extract, Transform, Load

FAT: Factory Acceptance Test (Vendor testing phase)

FMM: Fifteen Minute Market

GF: Grandfathered

GHG: Greenhouse Gas

GRDT: Generation Resource Data Template

GUI: Graphical User Interface

HASP: A CAISO (non-EIM) concept, stands for Hour Ahead

Scheduling Process

IST: Inter-SC Trade

IT: Information Technology

JFB: John Ferraro Building

JSON: JavaScript Object Notation

JOT: Joint Owned Transmission

LADWP: Los Angeles Department of Water and Power. Also

referred to as the "Department."

LMP: Locational Marginal Price

Mandatory: A requirement that must be satisfied. Failure to comply

with a mandatory requirement will lead to the disqualification of the Proposer's proposal.

Market SIM: Market Simulation (EIM testing phase)

MRI-S: Market Results Interface - Settlements (EIM Application)

MRTU: A CAISO (non-EIM) concept, stands for Market Redesign

and Technology Upgrade

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MSG: Multi-Stage Generators

MW: Megawatt

NPR Non-Participating Resources - EIM terminology for

generation not dispatchable by EIM.

OASIS: California ISO Open Access Same-time Information

System (EIM Application)

Offeror: Synonymous with Bidder.

OMS: Outage Management System (EIM Application)

Parallel Ops: Parallel Operations (EIM testing phase)

PR: Participating Resources - EIM terminology for generation

dispatchable by EIM.

Predictive Settlements: Calculating Settlements using internal data prior to T+3B

Proposer: Synonymous with Bidder.

PRSC: Participating Resource Scheduling Coordinator – Utility in

the market that has dispatchable generation.

PSE: Purchasing and Selling Entity

RC: Reliability Coordinator

RDT: Resource Data Template

RIE: Residual Imbalance Energy

RT: Real Time

RTPD: Real Time Pre Dispatch

QA: Quality Assurance

Respondents: Synonymous with Bidder.

SAT: System Acceptance Test (Vendor testing phase)

SC: Scheduling Coordinator – CAISO term for a utility in the

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Market.

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SFTP: Secure File Transfer Protocol

Shadow Settlements: Calculating Settlements using internal data

SIBR: Scheduling Infrastructure Business Rules (EIM

Application)

SIEM: Security Information and Event Management.

SOW: Scope of Work

SQMD: Settlement Quality Meter Data

Subcontractor: A person, firm, corporation, partnership, or joint venture

other than the Contractor and employees thereof, who supplies labor or materials on a portion of the work. Also,

synonymous with Subconsultant.

T+#B Trade Date plus (Number of business days) (eg. T+3B,

T+8B, ect.)

The Market Synonym used for EIM

The System: Synonym used for application the SOW is created to

address.

UAT: User Acceptance Test (Vendor testing phase)

UI: User Interface

VER: Variable Energy Resources

3.0 SMALL BUSINESS ENTERPRISES (SBEs) AND DISABLED VETERAN BUSINESS ENTERPRISES (DVBEs)

It is the policy of LADWP to provide SBEs, DVBEs, Emerging Business Enterprises (EBEs), Women-Owned Business Enterprises (WBEs), Minority-Owned Business Enterprises (MBEs), Disadvantaged Business Enterprises (DBEs), Lesbian, Gay, Bisexual, or Transgender Business Enterprise (LGBTBEs), and Other Business Enterprises (OBEs) an equal opportunity to participate in the performance of all Department contracts. LADWP's overall annual SBE and DVBE participation goals are set at 25 percent and 3 percent, respectively. The bidder shall assist LADWP in implementing this policy by taking all reasonable steps to ensure that all available business enterprises, including SBEs, DVBEs, EBEs, WBEs, MBEs, DBEs, and LGBTBEs have an equal opportunity to compete for and participate in Department contracts.

If any subcontractors are proposed for this bidding opportunity, the bidder shall complete and submit the form titled "List of Subconsultants" provided in **Exhibit E** of this RFP.

4.0 COMMUNICATION AND INTERPRETATION OF RFP DOCUMENTS

The key contact person listed below (referred to as "Buyer" herein) is responsible for the conduct of this RFP:

Buyer Contact Name and Title: Jeremy Devore / Assistant Utility Buyer Email: jeremy.devore@ladwp.com

Any verbal or written communications between any Proposer (potential or actual), or its representatives and any LADWP Commissioner, employee, or contracted consultant regarding this procurement are strictly prohibited from the date of RFP advertisement through the date of the execution of the contract, with the exception of negotiations or discussions initiated by LADWP during the evaluation process. Any violation of the requirements set forth in this Section may constitute grounds for immediate disqualification of the offending firm from participation in this procurement.

All questions, inquiries, concerns, clarifications, noted discrepancies or omissions in the RFP documents shall be submitted electronically using the electronic-request-solicit-procure (eRSP) system through the Q&A tab. Instruction on how to use the Q&A functionality can be found on the eRSP splash page under the heading "User Guides" under bullet number 4 "Electronic Bidding Guide (PDF)," pages 5-7. Requests for addenda, interpretation, or clarification shall be received by LADWP on or before the question or request for clarification deadline listed in Paragraph 5.0, <u>Anticipated Procurement Schedule</u>.

Questions must be submitted in the following format. Deviations from this format will not be accepted.

Section Number
Paragraph Number
Page Number
Text of Passage Being Questioned
Question

Any interpretation of or change in the documents will be made only by addendum issued electronically using the eRSP system. LADWP recommends all Proposers to visit the abovementioned eRSP Q&A tab on a regular basis as the responses may be posted earlier than the posting due date. LADWP will not be responsible for any other explanation or interpretations.

5.0 ANTICIPATED PROCUREMENT SCHEDULE

LADWP will make every effort to adhere to the schedule below. However, LADWP reserves the right, at its sole discretion, to adjust the RFP Schedule as it deems necessary.

No.	Activity	Time	Date
1	RFP Release		09/21/2018
2	Pre-Proposal Meeting	11:15 AM (PT)	10/04/2018
3	Deadline for Submittal of Questions or Requests for Clarification	2:00 PM (PT)	10/18/2018
4	LADWP's Responses to Received Questions and Request for Clarifications posted to eRSP		10/25/2018
5	Submittal of Notice of Intent to Submit Proposal (Appendix A)		11/01/2018
6	Proposal Due Date/Time	2:00 PM (PT)	11/08/2018
7	Mandatory Oral Interviews and Demonstrations		TBD
8	Proposal Review Completion		12/07/2018
9	Clarification Period		12/14/2018
10	Notice of Intent of Award		March 2019
11	Recommendation of Award to the Board of Water and Power Commissioners		April 2019
12	Notice to Proceed		May 2019

6.0 PRE-PROPOSAL MEETING

A pre-proposal meeting will be conducted to provide an overview of the RFP. The purpose of the meeting is to allow each Proposer to review the RFP with the LADWP project team. To obtain the greatest benefit of the meeting, Proposers are strongly encouraged to send their direct supervisory personnel/critical project team members (in lieu of business development or sales personnel).

The **Pre-Proposal Meeting** will be held at:

Date/Time: Thursday, October 04, 2018 at 11:15 am Address: 111 N. Hope St. Los Angeles, CA 90012 Building/Room Location: JFB – 11th Floor Rm. 1171

For coordination purposes, please email the Buyer the: name(s), phone number(s), and email(s) of those individuals that will be attending the meeting/visit.

Participation in the pre-proposal meeting can be accomplished in person or via Webinar. Questions may be submitted prior to the meeting using the eRSP system. Information presented at the meeting which is not included in the original RFP may not

be relied upon unless incorporated by addenda. LADWP may provide a demonstration of its eRSP electronic bid submittal system at the meeting. Proposers should assure themselves that they are comfortable with the submittal requirements and procedures for uploading documents in the eRSP system. Proposers are requested to limit attendance to two people from each company. If additional representation is required, notification should be made to LADWP so that appropriate accommodations can be arranged. Proposers will be directed to the meeting location(s) at the Security desk in the LADWP lobby or A-Level. Visitors to the JFB must be screened by LADWP Security which includes the presentation of photo identification and passage through a metal detector. Parking will not be provided at the JFB. Arrangements for a site visit, if any, are identified in Paragraph 5.0, Anticipated Procurement Schedule.

If attendance at the meeting is to be accomplished via Webinar in lieu of physical attendance, the Proposer must notify the Buyer via email 48 hours in advance of the meeting. Instructions for participation will be provided upon receipt of the request. Individuals who attend via Webinar must identify themselves as participants in the meeting in order to receive credit for attendance. Webinar participation is not allowed if a site visit is included as a part of the pre-proposal meeting.

Note: The person who will be attending the pre-proposal meeting is strongly encouraged to disseminate and convey all information discussed at the pre-proposal meeting to the appropriate staff member(s) who will be responsible for preparing and submitting the proposal.

7.0 NOTICE OF INTENT TO PROPOSE

Proposers are requested to sign and return the Notice of Intent to Submit Proposal (**Appendix A**) as instructed on the form on the date specified in Paragraph 5.0, Anticipated Procurement Schedule. If no proposal will be submitted in response to this RFP, please indicate the reason why in the space allocated on the form. The contact person who will be available during the solicitation period must be identified in the Notice of Intent to Submit Proposal. If this person is no longer available, the Proposer must notify LADWP immediately.

8.0 MANDATORY COMPLIANCE DOCUMENTS

Failure to complete, sign, and submit the Mandatory Compliance Documents listed in this paragraph will lead to the disqualification of a firm's proposal. The following forms and/or programs are applicable to every contract regardless of anticipated contract dollar value.

Appendix E Responsibility Questionnaire (CRO)
Appendix G CEC Form 50 – Bidder Certification

Appendix K CEC Form 55 – Prohibited Contributors (Bidders)

Please review these documents very carefully for accuracy and completeness, prior to submittal. Additional requirements which are specific to contract dollar value are

addressed in Section Six – Compliance Requirements and Forms.

9.0 COURTESY REVIEW OF MANDATORY COMPLIANCE DOCUMENTS

In an effort to improve the "responsiveness of bids" related to the mandatory compliance documents listed in the above section (Section 8.0, Mandatory Compliance Documents), LADWP offers a courtesy review of such forms for completeness, accuracy, and required signature(s) before the RFP closing date. Interested Proposers may send completed and signed copies of the following forms via email to ccsdocs@ladwp.com.

Appendix E Responsibility Questionnaire (CRO)

Appendix G CEC Form 50 – Bidder Certification

Appendix K CEC Form 55 – Prohibited Contributors (Bidders)

The Proposer shall **NOT** send documents other than copies of the mandatory compliance documents indicated above.

To allow sufficient time for a courtesy review of such documents and subsequent feedback to Proposers, the email for a courtesy review request shall be received by LADWP no later than 48-hours before the RFP closing date and time. Proposers are encouraged to take advantage of LADWP's courtesy review of the mandatory compliance documents indicated above as early in the bidding process as possible. When submitting forms to LADWP for a courtesy review, the Proposer shall enter the "RFP Number" and "Title of the RFP" in the subject line of the email. The Proposer shall ultimately be responsible for the accuracy, completeness, and signature requirement(s) of all mandatory compliance documents submitted with the proposal.

All other questions, inquiries, or correspondence regarding this RFP shall be conducted using the eRSP system's "Questions and Answer (Q&A)" functionality.

10.0 ADDENDA

LADWP may issue addenda to make changes to the RFP, changes to the scope, respond to any questions, or provide clarification to information stated within the RFP. All written/published addenda shall become part of this RFP, and must be considered by the Proposer in its proposal. All other communications are unofficial and non-binding.

Addenda related to this RFP will be issued via eRSP. Proposers must acknowledge receipt of all addenda issued by LADWP in their Letter of Transmittal (Proposal Requirements). If an addendum is issued amending this RFP, all provisions that are not modified remain unchanged.

11.0 MODIFICATIONS AND ALTERNATIVE PROPOSALS

Proposers are cautioned to limit exceptions, conditions, and limitations to the provisions of this RFP as they may be determined to be so fundamental as to cause rejection of

the proposal for not responding to the requirements of the RFP. All exceptions MUST be included in Proposers' Exceptions to Technical Requirements and Terms and Conditions of Agreement table, in accordance with Paragraph 3.0, Proposal Organization and Content, of Section Two. Only exceptions included in such table may be considered. Exceptions noted anywhere else in Proposers' proposal <u>will not</u> be considered and <u>will not</u> be part of any resulting agreement, if any.

Proposers submitting conforming proposals may submit alternate proposals to this RFP as complete separate offers, if the alternate proposals offer technical improvements or modifications that are to the overall benefit of LADWP. LADWP reserves the right to accept or reject any alternate proposal. Oral or telephonic proposals and/or modifications shall not be considered.

12.0 ERRORS OR OMISSIONS IN PROPOSALS

LADWP will not be liable for any errors or omissions in consultant proposals. Consultants will not be allowed to alter proposals after the proposal due date without permission from LADWP.

13.0 WITHDRAWAL OF PROPOSAL

A Proposer by means of a written request, signed by the Proposer's Representative, may withdraw a proposal. Such written request shall be delivered to the Buyer identified in the RFP prior to contract approval by the General Manager or appropriate LADWP Board.

14.0 ADDITIONAL INFORMATION REQUIRED UPON REQUEST

A detailed cost/price analysis may be requested of the Proposer in order to determine if the price proposed is fair and reasonable. If LADWP determines that a cost analysis is necessary, the Proposer must be prepared to provide, upon request, summaries of estimated costs and documentation supporting all cost elements.

15.0 AWARD PROCEDURES

The Proposer recommended for award will be notified when the recommendation of award will be acted upon by the LADWP Board of Commissioners. All recommendations for award approved by the LADWP Board of Commissioners in an amount greater than \$150,000 or that exceed a 12-month period are subject to review by the Los Angeles City Council, and an award of contract will not be final until such review process has been completed. The successful bidder will be notified, in writing, when such review process has been completed, and of the award date of the contract. No payment can be made for action taken or work started prior to the award date of the contract, execution of bonds and insurance if applicable, and any other requirements that may be imposed by the terms of the contract.

16.0 PROTEST PROCEDURE

The intent of this procedure is to provide a process for proposers to formally express any concerns with the content of the solicitation documents or a contract award.

In order for a protest to be considered, the Protestor shall adhere to LADWP's Protest Procedure by providing a written submission which shall contain, at a minimum, the following elements:

- 1. Name and address of the Protestor;
- 2. Its relationship to the procurement sufficient to establish that the Protest is being filed by an Interested Party;

Note: An Interested Party means a prospective or actual proposer whose direct economic interest would be affected by the solicitation contents or by the award of a contract or by the failure to award a contract. Interested parties do not include subconsultants or suppliers of an actual or prospective proposer, or joint venture members acting independently of a joint venture.

- 3. Written proof that the Protest has been filed in a timely manner;
- 4. The specific RFP number and title identified in the solicitation;
- 5. The specific staff action or inaction that is being protested;
- 6. If the Protest is regarding the content of the solicitation documents, identify the provision(s) of the solicitation that is being protested (Content);
- 7. All supporting documentation to support the allegations in the Protest; and
- 8. Statement of specific relief being requested. All protests shall be filed in writing to:

DIRECTOR OF SUPPLY CHAIN SERVICES LOS ANGELES DEPARTMENT OF WATER AND POWER 111 NORTH HOPE STREET, ROOM L-43 LOS ANGELES, CA 90012 FAX NO. (213) 367-2268

At the Protestor's discretion, a protest may be filed by electronic facsimile (with original hard copy by express mail or by any other receipt means). LADWP is not responsible for lost or otherwise delayed deliveries. No other location or addresses shall be acceptable. Appeals addressed to the attention of the LADWP Chief Operating Officer (COO) for Board award shall be delivered to the above listed address for date and time stamping.

The Protestor may withdraw its Protest or Appeal at any time before LADWP issues a final decision.

16.1 PROTEST REGARDING CONTENT OF SOLICITATION DOCUMENTS

To be considered timely, Protests concerning the contents of an RFP for Board

Awarded contracts (greater than one year or greater than \$150,000), including all attached documents, shall be filed with LADWP within seven (7) calendar days after the advertisement of the solicitation by LADWP, or three (3) calendar days from the issuance of any addendum to the RFP. The Protest shall be received not later than 4:00 p.m. local time. If the due date falls on a weekend or legal holiday, the Protest period ends at 4:00 p.m. local time the following business day. Protests not filed within the time limits stated herein may be rejected without consideration or evaluation.

LADWP will issue a written decision on the Protest for content prior to the bid closing or submission of proposals.

16.2 PROTESTS REGARDING AWARD

Any bidder in the course of a competitive solicitation who is determined nonresponsive or who is otherwise not being recommended for award of a contract may Protest the solicitation award.

Protests concerning a recommendation for Board award, on any ground not based on the content of the RFP, shall be filed with LADWP by an Interested Party within seven (7) calendar days of the date of the notice of a recommended award or non-select letter. The Protest shall be received not later than 4:00 p.m. local time. If the calendar day falls on a weekend or legal holiday, the Protest period ends at 4:00 p.m. local time the following business day. Protests not filed within the time limits stated herein may be rejected without consideration or evaluation.

16.3 PROTEST APPEAL PROCEDURE

Appeals for contracts awarded by the Board of Water and Power Commissioners shall be submitted to the LADWP COO within five (5) calendar days from the date the denial of the protest was emailed or faxed to the Protestor. The Appellant will be provided with final determination made by the LADWP COO.

16.4 FAILURE TO COMPLY WITH REQUIREMENTS

If the Protest does not comply with any of the preceding requirements, it may not be considered for evaluation and may be returned to the Protestor who submitted the written documentation.

17.0 PUBLIC DISCLOSURE REQUIREMENTS

All documents submitted in response to the RFP will become a matter of public record and shall be thereupon considered public records. If a bidder believes that any portion of its proposal is exempt from public disclosure, such portion shall be clearly marked "Trade Secret," "Confidential," or "Proprietary." By submitting information with portions marked in this manner, the bidder represents that it has a good faith belief that such

material is exempt from disclosure under the California Public Records Act, *California Government Code* §§ 6250, et. seq. A bidder that indiscriminately marks all or most of its proposal as exempt from disclosure as a public record, whether by notations of "Trade Secret," "Confidential," "Proprietary," or otherwise, may render the proposal non-responsive and will be rejected. LADWP will not provide advice as to the nature or content of documents to protection from disclosure under the California Public Records Act, including interpretations of the Act or the definitions of "Trade Secret," "Confidential" or "Proprietary."

LADWP is not liable or responsible for the disclosure of records marked "Trade Secret," "Confidential" or "Proprietary," including those exempt from disclosure if disclosure is deemed required by law, by an order of Court, or which occurs through inadvertence, mistake or negligence on the part of LADWP or its Board, officers, representatives, assigns, successors, employees or agents. At such time as proposals are deemed a matter of public record, pursuant to the above, any bidder or member of the public shall be afforded access for inspection or copying of such proposals, by request made to LADWP in compliance with the California Public Records Act.

The bidder shall agree to reimburse LADWP for, and to indemnify, defend and hold harmless LADWP, its Board, officers, representatives, assigns, successors, fiduciaries, employees and agents from and against any and all claims, damages, losses, liabilities, suits, judgments, causes of action, demands, fines, penalties, costs and expenses including without limitation, attorney's fees, expenses and court costs of any nature whatsoever arising from or relating to LADWP's non-disclosure of any such designated portions of a proposal if disclosure is deemed required by law or court order. Additionally, LADWP may request that the bidder directly defend any action for disclosure of any information marked "Trade Secret," "Confidential," "Proprietary," or otherwise; if the bidder refuses to do so after requested by LADWP's sole option, LADWP may release those parts of the proposal so marked without any liability whatsoever to the proposer.

18.0 POST-AWARD DEBRIEFING

Within 30 calendar days after execution and delivery of the contract, upon written request to the LADWP buyer of record, LADWP will be available for an oral debriefing session for an unsuccessful Proposer. The debriefing will be limited to the debriefed Proposer's overall ranking, the strengths and weaknesses of its Proposal, and answer questions regarding the selection process. Debriefings shall note include a point-by-point comparison of the debriefed Proposer's proposal with the other proposals.

19.0 POST-AWARD ADMINISTRATION

LADWP has established a post-award contractor evaluation program that requires performance monitoring and reporting. LADWP will monitor the performance of the proposer selected for contract award to ensure compliance with contract terms and performance expectations. A record of this performance may be used for evaluation purpose in future solicitations.

LADWP's Contractor Performance Evaluation Program (CPEP) can be found at the following web address under Contractor Performance Evaluation Program: https://www.ladwp.com/ladwp/faces/ladwp/partners/p-vendorsandbidders.

20.0 MANDATORY ORAL INTERVIEW AND DEMONSTRATION

All short-listed Proposers will be invited to a mandatory oral interview and shall provide LADWP a demonstration of their system(s) at the John Ferraro Building (JFB) located at 111 N. Hope St., Los Angeles, CA 90012, tentatively scheduled for early-December of 2018. Short-listed Proposers will be notified via email of the exact date and time of the oral interview.

The oral interview shall include demonstration of the system(s) capabilities in the form of 'a day in the life of a user' activities/workflow/sequence, while also showing Troubleshooting/Support/Maintenance aspects and systems' differentiating features. No data will be provided to Proposers by LADWP. Proposers shall provide their own LADWP simulated data. The oral interview and demonstration will be used for evaluation purposes only. Failure to appear for the oral interview and demonstration shall deem the proposal non-responsive.

There is latitude in the presentation/demonstration approach Proposers can employ, expectations of LADWP are to see at a minimum:

20.1 DEMONSTRATION EXPECTATIONS FOR MERCHANT SYSTEM

'A day in the life of a user' includes the following activities/workflow/sequence:

- 1. Simulate interfacing for Internal Data (1st Principles)
- 2. Perform Predictive / Shadow Settlements using 1st Principles Internal LADWP simulated data.
- 3. Load (or simulated/mock) CAISO EIM Data (Awards/Expected Energy, Metering, Prices resource specific and nodal backup, etc);
- 4. Load (or simulated/mock) SC Settlements files, Determinates files, and Resettlement files.
- 5. Shadow Settle, demonstrating as many charge types as possible. Examples include the following:
 - a. Energy (64600, 64700, 64750 & 491) including Residual Imbalance Energy (RIE)
 - b. Flex Ramp (7070, 7071, 7077, 7078, 7081, 7087 & 7088)
 - c. Bid Cost Recovery (66200)
- 6. Show displays/drill-down details capabilities
- 7. Demonstrate version control of multiple CAISO and Shadow Settlements
- 8. Show methods for identifying Variances
- 9. Workflow for approval of Statements (daily and monthly)
- 10. Workflow for approval of Invoices

- 11. Show Dispute Process
 - a. incorporating CIDI
 - local tracking of dispute info/status
- 12. Load (or simulated/mock) CAISO EIM Invoices,
- 13. Simulate interfacing for AP/AR (FSO)
- 14. Demonstrate reporting, analytics and information visualization capabilities. Demonstration of particular interest to LADWP are listed in the requirements and include:
 - a. Out of the box
 - b. Custom/configurable
 - c. Visually display Unit DOT, v. metered output
 - d. Visually display FMM LMP, RTM LMP, and Deviation MWh.
 - e. Visually display FMM / Base Schedule Deviation
 - f. Visually display the FMM Energy Total, the DOT, and associated deviations
 - g. Visually display results of the Resource Sufficiency Tests (Forecasted, Scheduled, Metered Load, and associated deviations)
- 15. High level demo of deal capture functionality.

<u>Troubleshooting/Support/Maintenance</u> includes the following aspects:

- 1. Workflow assistance (cues, checklists, notifications, triggers, warnings)
- 2. Show automated jobs (example: file downloads)
- 3. Show Settings/configuration aspects
 Example: Threshold setting for flagging for Dispute
- 4. Show audit/logging capabilities
- 5. Show Troubleshooting processes

20.2 DEMONSTRATION EXPECTATIONS FOR ENTITY SYSTEM

'A day in the life of a user' includes the following activities/workflow/sequence:

- 1. Simulate interfacing for Internal Data (1st Principles).
- 2. Perform Predictive/Shadow Settlements using 1st Principles Internal LADWP simulated data.
- 3. Load (or simulated/mock) CAISO EIM Data (Awards/Expected Energy, Metering, Prices resource specific and nodal backup, etc);
- 4. Load (or simulated/mock) SC Settlements files, Determinates files, and Resettlement files.
- 5. Shadow Settle, demonstrating as many charge types as possible. Examples include:
 - a. Energy (64600, 64700, 64740, 64750) including VER / RIE, Intertie resources. Ghost resources
 - b. Over/Under Scheduling (6045 & 6046)
 - c. Offset Charge Codes (6478, 64770, 67740 & 69850)
- 6. Show displays/drill-down details capabilities
- 7. Demonstrate version control of multiple CAISO and Shadow Settlements

- 8. Show methods for identifying Variances
- 9. Workflow for approval of Statements (daily and monthly)
- 10. Workflow for approval of Invoices
- 11. Show Dispute Process
 - a. incorporating CIDI
 - b. local tracking of dispute info/status
- 12. Load (or simulated/mock) CAISO EIM Invoices.
- 13. Show Cost Allocations to LADWP Transmission Customers
 - a. Energy particular focus on non-zero 64600 & 64700 for GHOST Resources with multiple tags
 - b. Over/Under Scheduling
 - c. Offset Charge Codes
 - d. Direct Assignment of a miscellaneous amount w/ annotation
- 14. Show examples of 3rd party settlement statement & invoice formats
- 15. Simulate interfacing for AP/AR (FSO)
- 16. Demonstrate reporting capabilities
 - a. Out of the box
 - b. Custom / configurable

<u>Troubleshooting/Support/Maintenance</u> includes the following aspects:

- 1. Workflow assistance (cues, checklists, notifications, triggers, warnings)
- 2. Show automated jobs (ex: file downloads)
- 3. Show Settings / configuration aspects.

 Example: Threshold setting for flagging for Dispute
- 4. Show audit/logging capabilities
- 5. Show Troubleshooting processes

END OF SECTION ONE

SECTION TWO PROPOSAL REQUIREMENTS

SECTION TWO – PROPOSAL REQUIREMENTS

1.0 PROPOSAL SUBMITTAL

All proposals are due at the date and time specified in Paragraph 5.0, **Anticipated Procurement Schedule** in Section One. Proposals shall be submitted in accordance with the requirements set in this document. Any proposal that does not adhere to the requirements in this RFP may be deemed non-responsive and rejected.

Proposer shall submit an electronic proposal and hardcopy proposal as outlined below. Late proposals in either of these formats will not be accepted. Please ensure you allow adequate time for uploading your proposal onto eRSP. Any discrepancies between the hardcopy and digital copy may result in rejection of the proposal.

All materials submitted shall become a part of the proposal, and may be incorporated in a subsequent contract between LADWP and the selected Proposer.

Electronic Proposal Requirements:

- Submit completed proposal in eRSP system prior to the proposal closing date and time. Attach Fee Schedule separately and named "confidential."
- All files must be in Adobe PDF, MS Word or MS Excel format.
- All files must be titled with the 'RFP Number + Subject + Proposer Name'.
 For Example: "RFP 12345 Proposal ABC Consultant".

Hardcopy Proposal Requirements:

- One (1) original and six (6) hard copies of the complete proposal shall be submitted in a sealed envelope.
- The original shall be bound in a three ring binder. The copies may be bound in any other fashion.
- The hard copies of the **Fee Schedule** must be submitted in a separate sealed envelope.
- The package shall include all required submittals.
- The hard copy of the proposal shall be deemed received by LADWP when it has been physically received by a staff member of LADWP's Vendor Liaison Center before the proposal closing date and time.
- It is the responsibility of the Proposer to ensure that the proposal is received by LADWP by the specified deadline.
- Delays due to mail handling, including, but not limited to, LADWP's internal mail handling, will not excuse late delivery of proposal.
- The package shall be addressed and mailed to the LADWP and clearly labelled as follows:

LADWP Vendor Liaison Center 111 North Hope Street, Room L43 Los Angeles, CA 90012 Attention: Jeremy Devore

RFP No./RFP Title: 90478 – EIM Merchant and Entity Settlement

and Transmission Billing Systems

Proposal Due Date/Time: November 08, 2018, 2:00pm PST

2.0 PROPOSAL FORMAT

All responses/submittals to this RFP shall be made in accordance with the format as outlined below:

- Written in the English language.
- All pages consecutively numbered with a Table of Contents.
- Prepared simply and economically, without the inclusion of unnecessary promotional materials.
- Shall be submitted on recycled paper that has a minimum of 30-percent post-consumer recycled content and be duplex copied (double-sided pages).
- Must be on standard 8 ½ " x 11" paper size with 1" left, top, bottom and right margins. Use of 11" x 17" fold out sheets for large tables, charts, or diagrams is permissible.
- Must be single-spaced with a minimum font size of eleven.

Required Proposal Forms shall be included as part of the Appendices. **Proposer shall** use only the proposal forms in this RFP and may not modify or change any proposal form.

3.0 PROPOSAL ORGANIZATION AND CONTENT

Proposals shall be organized and titled as follows:

Letter of Transmittal					
Volume I – Management Proposal					
Chapter 1 Proposer's Qualification and Experience (One-page limit) Past Performance Questionnaire					
Chapter 2	Organizational/Management Approach to the Work (3-page limit)				
Chapter 3	Qualifications of Key Personnel Key Personnel References				
Volume II – Technical Proposal					

Chapter 1	hapter 1 Technical Approach			
Chapter 2 Project Milestone Schedule				
Chapter 3	Chapter 3 Information Security Considerations			
Chapter 4 Training Plan				
Chapter 5 Software Maintenance & Support				
Volume III – Business Proposal				
Chapter 1	Fee Schedules (Appendix B) Submit original and requested copies in a separate sealed envelope.			
Chapter 2	Exceptions to Technical Requirements and Terms and Conditions of Agreement			
Chapter 3 Required compliance forms included in RFP Section Six				
Chapter 4 Financial Resources and Responsibility				
Chapter 5	Project Payment Schedule			

The following detailed proposal instructions are provided to ensure a consistent and detailed description of the Proposer's approach and the associated price.

- A. <u>Letter of Transmittal</u> This letter shall accompany all proposals and must meet the following requirements:
 - 1. A brief statement of the Consultant's understanding of the work to be performed and commitment to perform the work as scheduled.
 - 2. A reference to any contractual terms and conditions required by the Consultant.
 - 3. The names of individuals authorized to represent the Consultant, the titles, addresses, telephone numbers and email addresses.
 - Proposers must include a statement certifying receipt of all addenda issued by LADWP related to this RFP or attach an acknowledgement thereof.
 - 5. A corporate officer or person who is authorized to represent the company must sign this letter on behalf of the Proposer.
- B. Volume I Management Proposal
 - 1. <u>Proposer's Qualifications, Experience, and Past Performance</u>
 - a. Provide a description of CAISO / EIM market experience along with

any other Electric Transmission Settlement, Energy Market Settlement or other market experience related project work performed by your firm in the past five (5) years. Description should include but not be limited to, scope of the work, any customization, Geographic implementation, CAISO / EIM Market, other Markets (if applicable), team size, summary project plan of work, project duration, training and software maintenance.

b. <u>Past Performance Questionnaire</u> – Proposer is required to collect Past Performance Questionnaire (PPQ) from previous clients as outlined in this section and template/sample provided in Appendix R.

Proposer is responsible for collecting customer satisfaction PPQs or surveys from past clients/references/users (herein referred to as 'client') for relevant work similar in size and complexity to tasks describes in the statement of work and submitting this information with the proposal package.

Step 1 – Identify Who To Survey:

- Identify a list of client references that will evaluate Proposer's performance on past projects.
- Proposer should survey clients that are highly satisfied with Proposer's work.
- Projects performed in highly urbanized areas (similar to the City of Los Angeles), may receive greater credit.
- Proposer's clients [or owners/users] MUST be the references that complete the survey. The survey cannot be completed by any third party representatives of Proposer's client (such as contractors, consultants, designers, architects/engineers, etc.).
- The minimum number of projects that can be submitted is 3, and the maximum number of projects that can be submitted is 5.

Step 2 – Preparing the Surveys:

- Proposers are responsible for preparing their own surveys.
- The PPQ or survey is separated into three different sections/parts. In order to receive credit for a returned survey, Proposers MUST provide all required information on the PPQ or survey:
 - o (Part A) Proposer shall enter the company name
 - (Part B) Proposer shall enter background information about the project being evaluated. All information is required. Failure to provide this information, or listing "n/a" or "confidential" may result in no credit for the survey.
 - o (Part C) The client will provide their customer

satisfaction, general comments, and shall sign the survey response.

 Proposers MUST enter their contact information (located at the bottom of the survey) so the survey is returned back to Proposer for collection.

Step 3 – Distributing and Collecting the Surveys:

- Prior to distributing the surveys, Proposer should contact each client/reference to ensure that they are able and willing to complete the survey.
- Proposer should fax, email, mail, or deliver the survey to each client/reference.
- All returned surveys MUST be evaluated AND signed by Proposer's client. This reference MUST be the owner or end client of the project/service. If a survey is not signed, it will NOT be considered.
- LADWP may contact the client/reference to clarify a survey rating, check for accuracy, or to obtain additional information. If Proposer's client/reference cannot be contacted, the survey may be deleted and no credit given to Proposer for that client/reference.
- Returned surveys MUST be packaged together and submitted with the proposal.

To obtain Proposer's Past Performance score, LADWP will input and average Proposer's client/reference satisfaction scores, and count the total number of returned surveys. (Both of these calculations will impact Proposer's score.) Failing to submit surveys will not disqualify Proposer, but may impact Proposer's competiveness. (In absence of a returned survey, Proposer will be given an average satisfaction score of "5" for evaluation purposes only.)

E.g., if two returned PPQs are required from Proposer and only one PPQ with a score of "9" was submitted with the proposal, Proposer's PPQ score will be scored in accordance with the following:

Note: LADWP reserves the right to contact Proposers' clients to verify the scores and comments, and to ask follow-up questions.

The choice of the reference project/client and designated point-ofcontact is critical to accurately evaluate the Proposer's past performance. Accordingly, Proposer is encouraged to carefully select an informed and objective point-of-contact for each PPQ and provide LADWP with the most current data. Before including any person as a point-of-contact, verify the accuracy, currency, and completeness of the point-of-contact's mailing address, email address, telephone number, and that the point-of-contact is willing to cooperate in this evaluation effort. The inability to reach any of the Proposer's PPQ contact or their unwillingness to provide the requested information may adversely affect Proposer's past performance evaluation. Proposer may be given the opportunity to address unsatisfactory reports of past performance, and the Proposer's response, or lack thereof, may be taken into consideration prior to award, if any.

To assess Proposer's performance risk, LADWP reserves the right to obtain information and PPQs from sources other than those submitted by Proposer.

- 2. Organizational/Management Approach to the Work The Proposer should include the organizational approach for its proposed team, including the roles of and management of subconsultants, and an organizational chart that identifies overall reporting structures. The documentation should at a minimum identify the following roles (note one person may be assigned to multiple roles):
 - a. Executive Management
 - b. Overall Project Management Lead
 - c. System Architect
 - d. Development Team assigned to LADWP work
 - e. Testing Lead
 - f. Training Lead
 - g. Resource / Budget Lead

The Proposer will provide a planned approach to risk management and process for escalating issues within the Proposer's organization and LADWP should be identified. Provide information detailed enough to demonstrate that the Proposer has the project management skills to deliver on this complex fixed fee project on time and within budget. Approach shall detail what reporting (including frequency) will be made available to LADWP and how LADWP will be afforded visibility into Contractor performance. Transition and disengagement procedures should be addressed for work that will be handed off to LADWP. (Three page limit)

3. Proposer's Key Personnel

a. <u>Qualifications of Key Personnel</u> – Provide a summary of qualifications and experience of key personnel who will work on the contract, including subconsultants. Please limit resumes to no longer than two pages each. Key Personnel are identified by LADWP in the List of Key

Consultant Personnel in **Exhibit F** of Section Five, and any other personnel identified by the Proposer as essential to the performance of the Statement of Work.

b. Key Personnel References – Proposer must provide a minimum of three relevant references for each team member identified as key personnel. References should be on similar projects or services that closely match the size, complexity, and tasks described in the statement of work in this RFP. References must be from the end-client or users of the project or service, and not third party consultants or owners representatives. LADWP may contact these references to gather information about their experiences and satisfaction with the ability of the key personnel identified to deliver high quality work.
Note: Multiple key personnel can use the same 'references' provided that they were assigned to those projects in their current roles.

LADWP reserves the right to contact these references at any time. LADWP also reserves the right to seek other verifications as necessary and additional references independent of those supplied by the Proposer, including internal references in relation to the Proposer and any subcontractors performance under any past or current contracts with LADWP.

State whether Proposer will use subconsultants to perform services pursuant to the contract. Should the use of subconsultants be offered, provide the resumes of subconsultant key personnel. Subconsultants shall not be allowed to further subcontract with others for work on this Statement of Work.

C. <u>Volume II – Technical Proposal (Applicable to both Merchant and Entity Systems)</u>

- Technical Approach Provide sufficient information to demonstrate the Proposer's understanding of the requirements. Must comprehensively describe the approach for meeting all of the requirements of the Statement of Work or Scope of Services. Particular emphasis should be given to confirm depth and breadth of technical and/or industry knowledge.
 - a. <u>System Requirements and Performance</u> Proposer shall provide the following information:
 - Clearly define any user system requirements. Examples include CPU, RAM, Minimum Disk Space, Disk read/write, and Web Browser requirements and recommended setting.
 - Include resources to support LADWP with System failover/disaster recovery such that LADWP can validate that all systems failover correctly using LADWP environment.

- Note anywhere the system does not include effective dating (when a value is valid, "from" and "to" timestamp) in underlying data store.
- 4) Provide documentation noting any place where data is not secured (encrypted) within the Software both in-flight and at-rest.
- 5) List modules that shall contain the requested functionality and shall provide all the out of the box functionality not highlighted in the requirements document for that module
- 6) Provide information on additional bandwidth requirements (if any) for hosted systems, with the expected Peak load ____MB in an hour, and typically load ____MB per hour
- 7) Provide any documentation available from testing or other installations to show performance levels, at time of proposal response.
- 8) Note Special attention on metrics that negatively impact performance with larger growth rates or storage rates than anticipated/typical.

Any efforts required from LADWP should also be addressed herein.

- b. Compliance and Approach to Interfaces/Automated Programmatic Interface (API), Data Management, and Application Support Information provided for this section shall include compliance and approach to the following:
 - 1) Number and list of APIs supported for interfacing with the California Independent System Operator (CAISO) and third-party systems.
 - 2) Handling of Meter Data from CAISO and Internal Systems.
 - 3) Updating mechanisms, Version control, usage for settlements calculations, validation mechanisms.
- c. Compliance and Approach to Document Expectations of Data Retention and management:
 - Vendor policy for allowing the Participating Resource Scheduling Coordinator (PRSC) to access archived data.

- 2) Written expectations of maximum number that can be retained on the system before it affects performance, in reference to Configured reports, Predictive/shadow settlements, EIM invoices, Settlement statements and determinant files or operating days, and any other constraints/categories that affect performance.
- Terms of Application Support, including descriptions of Business Hour Support, After Hour Support, Variance & Issue Tracking processes, and responsiveness and diligence policies on resolution.
- d. <u>Compliance and Approach to Documentation and Regiment –</u>
 Information provided for this section shall include the following:
 - Show sample documentation (Functional Designs, Technical Designs, User Guides, Troubleshooting and Support Manuals, API specifications, etc.) that shall be expected as part of system implementation and support.
 - 2) Show a sample project plan and approach for preparing LADWP for April 2020 EIM Go Live.
 - 3) Show any additional documentation or mechanisms used for your system, such as Release Notes and Version/Change Management, Issue Tracking and Resolution, Test Plans and Scripts, Performance Tracking and Optimization, Configuration Guides, etc.
- e. Compliance and Approach to Settlement, Invoice, Resettlement, Version Comparison and Dispute Processes Information provided for this section shall include
 - Demonstrate the ability to process EIM Settlements. Show functionality and processes for Validating EIM Settlements, Schedule Coordinator (SC) Statement, SC determinant, and Independent System Operator (ISO) determinant for (TD+3B, TD+12B, TD+55B) and Market Reruns (TD+9M – Trade Date plus number of business days).
 - 2) Show functionality to compare different versions of EIM Settlements, Validate EIM Settlements, and process EIM Invoices. Demonstrate ability to compare different versions of EIM Invoices. Show functionality and processes for Validating EIM Invoices.
 - 3) Demonstrate the dispute functions and processes. Identify the programmatic and manual aspects, as well as the format utilized.

- f. Compliance and Approach to Predictive and Shadow Settlement Process – Information provided for this section shall include Demonstrate the creation of Shadow Settlements using different data sources:
 - a) Internal / 3rd Party (1st Principles) data, systems or services
 - b) Initial EIM Settlements and determinates (TD+3B)
 - c) Market Recalculation (TD+12B, TD+55B)
 - d) Market Reruns (TD+9M...)

Show ability to automatically run, ad hoc trigger or schedule Shadow Settlement runs. Show any workflow assistance for Users or Admins. Provide performance estimates associated with running Settlements tied to any applicable variables. Show functionality and processes to compare Shadow Settlements with different Settlement versions (both EIM Settlements and previously run Shadow Settlements).

g. Compliance and Approach to Reports, Displays, Analytics and customization – Demonstrate the standard (out of the box) reporting aspects of the system. This may include screens/displays, visual representations, data exports, and any other standard aspects. Demonstrate the ability to customize reporting aspects (non-out of the box) of the system. Show configuration interface, reporting capabilities (such as serial or parallel report creation), methods for identifying data sources/versions, and auditing aspects.

Demonstrate capabilities of Data Analytics, including profit and loss (P&L) functionality. Show the systems' features and differentiators. (Ex: ability to identify different factors, set flags with corresponding thresholds, provide rapid feedback on actions, etc). Demonstrate capabilities for issue identification, troubleshooting, audit logging and other aspects used to resolve problems.

The following is applicable to the ENTITY System ONLY

h. Compliance and Approach to Allocation and Transmission Billing Processes – For the Entity Settlements System, demonstrate the functionality for Allocation of EIM Settlements per Transmission customers. Show capabilities and options around different Allocation Methods. Show any configuration variables and screens. Demonstrate capabilities around comparing Allocation Versions, and functionality for validating Allocation results.

Demonstrate the functionality for Billing Transmission customers. Identify the workflow, functionality and processes associated with

creating customer Billing. Demonstrate capabilities round comparing Billing Summary versions, and functionality for validating.

2. Project Milestone Schedule – A proposed Project Milestone Schedule shall be provided by each Proposer. The Project Milestone Schedule shall include major project activities from the time of contract award to Go-Live and shall be in full compliance with the milestones indicated in Section Four, Statement of Work, 3.2 Project Milestone Schedule, which forms the schedule for the Project. The Proposer's Project Milestone Schedule may be subject to negotiations with LADWP. The Project Milestone Schedule must meet the requirements set forth in Section Four.

The proposer shall provide a detailed description of methods that shall be employed to monitor and control project milestone schedule, project cost, and project quality. Describe specifically the monitoring processes and tools, the controls process and tools, and respondent's standard recovery processes and tools. Identify the software programs that shall be used.

Proposer shall identify methods used to ensure that the Project Milestone Schedule is met and to show the Proposer's ability to integrate cost and schedule criteria in an Earned Value/Percent Complete analysis to effectively report project performance.

3. <u>Information Security Considerations</u>

- a. Proposer shall complete the Information Security Consideration questionnaire in Section Six, Appendix T, Information Security Considerations.
- b. Proposer shall include a one-page Cyber-security Program Summary that identifies security-related methodologies that identify risks, risk mitigation, and related IT controls used in their proposals. The proposer shall include but not limit themselves to security plans and management, identity and account management, incident monitoring and response, infrastructure and physical security, cryptography and key management, data exchange, system maintenance, vendor management, multi-tenancy, human resources, and regulatory compliance.
- 4. <u>Training Plan</u> Proposer shall provide a training plan for the offered system(s) as outlined in Section Four, Statement of Work, 4.14, Training Plan which shall include, but not be limited to, the curriculum, location(s), session duration timing, prerequisites, and any other aspects necessary for proper preparation of Users and Admins prior to Go-Live. Proposer shall submit the instructor(s) resume. Please limit resumes to no longer than two pages each.

5. Software Maintenance and Support Services – Proposer shall provide a software maintenance and support services package. The package shall include twenty-four hours a day, seven days a week (including holidays) availability of support resources for critical issues and eight hours a day, five days a week (Monday – Friday) support for non-critical issues. The maintenances shall include software updates releases and all associated patches. It is expected that there shall be a minimum of two software update releases per year.

D. Volume III – Business Proposal

1. Fee Schedules (Appendix B) (To be submitted in a separate sealed envelope and as a separate attachment in eRSP named "confidential")

The purpose of the Fee Schedule is to provide a standard format by which the Proposer submits to LADWP estimated costs (and attached supporting information) suitable for detailed review and analysis.

In addition to the specific information required by this form, the Proposer is expected, in good faith, to incorporate in and submit with this form any additional data, supporting schedules, or substantiation reasonably required for the conduct of an appropriate review and analysis in the light of the specific facts of this procurement. This information is required in order to ensure that the Proposer has a clear understanding of the proposed contract, and a realistic understanding of the work to be performed.

The Proposer must provide a total all-inclusive price proposal which shall include all direct and indirect costs by cost component such as labor, overhead, general administrative rate and profit.

The formats for the "Cost Elements" and "Proposed Contract Estimate" are not intended as rigid requirements. These may be presented in different format with **prior** approval by LADWP before proposal submittal. If approval is not obtained in advance, Proposer may be deemed non-responsive. This form will be completed and submitted **without change**.

By submission of this proposal, the Proposer grants to LADWP the right to examine, for the purpose of verifying the cost or pricing data submitted, those books, records, documents and other supporting data which will permit adequate evaluation of such cost or pricing data, along with the computations and projections used therein. This right may be exercised in connection with any negotiations/discussions prior to contract award.

 Exceptions to Technical Requirements and Terms and Conditions of <u>Agreement</u> – The Proposer shall note all exceptions taken to the RFP requirements, Statement of Work, specifications, and/or proposed contractual terms and conditions in the Draft Agreement, Section Five of this RFP. Only exceptions included in this chapter may be considered. Exceptions noted anywhere else in Proposer's proposal <u>will not</u> be considered and <u>will not</u> be part of any resulting agreement, if any. LADWP reserves the right to reject any proposal based on noncompliance with the contract terms and conditions included herein.

Exceptions to be submitted in the following table format:

Section	Paragraph	Page	Text of	Exception	Description
No.	No.	No.	Questioned		of
			Passage		Exception

- Required compliance forms included in RFP Section Six Proposer must fully complete each of the forms that are required by this RFP. Failure to complete the required forms may result in the firm being deemed nonresponsive.
- 4. <u>Financial Resources and Responsibility</u> The determination of the Proposer's financial qualifications and ability to meet its financial obligations based on the RFP's estimated budget range will be at the sole discretion of LADWP. Financial analysis includes and is not limited to standard accounting ratio analysis.

Provide the following information:

- a. The most recent three (3) years audited financial statements (Balance Sheet, Income Statement, and Cash-Flow Statement), including notes to the financial statements or the period of the company's existence, if shorter.
 - If the Proposer's financial statements are consolidated with the parent company or affiliate, submit the parent company's or affiliates financial statements.
 - 2) If audited financial statements are not available, submit the unaudited financial statements.
 - 3) If unaudited financial statements are not available, submit income tax returns and balance sheets for the most recent three (3) years.

Unaudited financial statements **must be signed and attested to by an authorized officer** as a fair representation, in all material aspects,

- of the company's financial condition in accordance with generally accepted accounting principles.
- b. If the most recent financial statement is dated more than six months prior to the RFP submittal date, Proposer must submit an interim financial statements signed and attested to by an authorized officer as a fair representation, in all material aspects, of the company's financial condition in accordance with generally accepted accounting principles.
- c. The company's Dun & Bradstreet unique nine-digit identifier (D-U-N-S number) with the financial documents.
- d. If any single subconsultant will perform more than \$500,000 or at least 25% of the work, include the subconsultant's financial stability information and qualifications of the subconsultant's key personnel, as described herein.

It is the Proposer's responsibility to submit any additional information that can demonstrate the Proposer is financially stable and has the financial resources to perform the contract.

Only information submitted with the proposal will be evaluated. However, LADWP may request clarifications or additional documentation, other than the aforementioned documents as stated above. No request by the Proposer to submit additional information for re-evaluation of financial resources and responsibility will be accepted.

5. <u>Project Payment</u> – Proposer shall provide a proposed payment and schedule based on the requirements in Section Six, **Appendix S**, Project Payment Schedule. In accordance with LADWP policy, the proposed payment schedule shall not include payment of any monies in advance of any deliverables or costs actually being incurred.

The proposed payment schedule shall include a monthly cash flow of payments based on scheduled milestone completion dates.

4.0 VALIDITY OF PROPOSALS

Proposals and subsequent offers shall be valid for a period of 180 days. LADWP may request Proposers to extend the validity of proposals and offers for LADWP's acceptance beyond the specified time period.

5.0 PROPOSER CHECKLIST

LADWP has developed this optional checklist to assist Proposers in complying with proposal submittal requirements.

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Pre-proposal Attend Pre-Proposal Meeting (Section One) \Box Submit Notice of Intent to Propose (Section One) Courtesy Review of Mandatory Compliance Documents (Section One) П Proposal Submittal – BOTH SUBMITTALS MUST BE ON TIME Submit completed proposal (Adobe PDF, MS Word/Excel) in eRSP with П Fee Schedule attached separately and named "confidential." (Section Two) Submit One (1) original in a 3-ring binder and six (6) complete hard copies with Fee Schedule in a separately sealed envelope to LADWP Vendor Liaison Center at 111 N Hope St, Rm L-43, Los Angeles, CA 90012 (Section Two) **Proposal Organization and Content** Letter of Transmittal (Section Two, Paragraph 3A) Volume I - Management Proposal (Section Two, Paragraph 3B) Proposer's Qualification and Experience Chapter 1: Past Performance Questionnaire (Appendix R) П Chapter 2: Organizational/Management Approach to the Work \Box Chapter 3: Qualifications of Key Personnel П **Key Personnel References** Volume II - Technical Proposal (Section Two, Paragraph 3C) Chapter 1: **Technical Approach** П Chapter 2: Project Milestone Schedule Chapter 3: Information Security Considerations (Appendix T) П П Chapter 4: Training Plan Chapter 5: Software Maintenance and Support Services П Volume III - Business Proposal (Section Two, Paragraph 3D) Chapter 1: Fee Schedule (Sealed in Separate Envelope) Chapter 2: Exceptions to Technical Requirements and Terms and Conditions of Agreement Table Compliance Requirements and Forms (Sections Six) -Chapter 3: See the following. \Box Chapter 4: Most Recent 3 Years Financial Statements П Chapter 5: Project Payment Schedule (Appendix S) **Mandatory Compliance Documents (Section Six)** Responsibility Questionnaire (Appendix E) CEC Form 50 – Bidder Certification (Appendix G) CEC Form 55 – Prohibited Contributors (Appendix K)

Other Required Documents (Sections Six) Certification of Compliance with Child Support Obligations (Appendix C) Equal Benefits Ordinance Compliance Affidavit (Appendix D) П Pledge of Compliance with Contractor Responsibility (Appendix E) Living Wage Exemption Forms Only (Appendix F) Business Tax Registration Certificate Application or copy of certificate (Appendix H) Form W-9 (Appendix I) Iran Contracting Act of 2010 (Appendix M) Background Check Certification (Appendix N) Confidentiality Agreement for LADWP Proprietary Information П (Appendix O) Safety Compliance Certificate (Appendix P) Local Business Preference Program Documentation (Appendix U) **Post-Proposal** П Prepare and attend Mandatory Oral Interview/Demonstration (to be

END OF SECTION TWO

scheduled)

SECTION THREE EVALUATION PROCESS

SECTION THREE – EVALUATION PROCESS

Proposals submitted for this effort shall be evaluated against the following criteria:

Evaluation Criteria [MERCHANT SETTLEMENT]	Relative Ranking or Weight [MERCHANT]
Mandatory Oral Interview & Demonstration	Pass/Fail
Financial Resources and Responsibility	Pass/Fail
Compliance with Mandatory Requirements	Pass/Fail
Volume I – Management Proposal	
Proposer's Qualifications and Experience	5 %
Past Performance Evaluation	5 %
 Organizational/Management Approach to the Work 	5 %
Qualifications of Key PersonnelKey Personnel References	5 %
Volume II – Technical Proposal	
Technical Approach	36 %
Project Milestone Schedule	7 %
 Information Security Considerations 	5 %
Training Plan	4 %
Software Maintenance and Support Services	4 %
Volume III – Business Proposal	
Fee Schedule	20 %
Project Payment Schedule	4 %
Subtotal	100 %
Application of Local Business Preference	Up to 8%

Evaluation Criteria [ENTITY SETTLEMENT & TRANMISSION BILLING]	Relative Ranking or Weight [ENTITY]
Mandatory Oral Interview & Demonstration	Pass/Fail
Financial Resources and Responsibility	Pass/Fail
Compliance with Mandatory Requirements	Pass/Fail
Volume I – Management Proposal	
Proposer's Qualifications and Experience	5 %
Past Performance Evaluation	5 %
 Organizational/Management Approach to the Work 	5 %
Qualifications of Key PersonnelKey Personnel References	5 %
Volume II – Technical Proposal	
Technical Approach	31 %
Allocation and Transmission Billing Processes	5 %
Project Milestone Schedule	7 %
Information Security Considerations	5 %
Training Plan	4 %
Software Maintenance and Support Services	4 %
Volume III – Business Proposal	
Fee Schedule	20 %
Project Payment Schedule	4 %
Subtotal	100 %
Application of Local Business Preference	Up to 8%

Note: A proposer that is qualified as a Local Business shall receive a preference in the form of additional points up to 8 percent of the total possible evaluation points.

Proposals will be evaluated to determine if the Proposer has fulfilled the requirements of the RFP, has a complete understanding of the work to be performed, has exhibited completeness and competence in addressing the Statement of Work or scope of services, and has delineated a viable methodology for meeting the requirements of the work. All proposals will be solely evaluated on their content. Materials not included in

the written proposal will not be considered.

LADWP will use the following steps in the evaluation of proposals:

- Evaluate and score proposals against the Evaluation Criteria delineated in this Section
- Oral Interviews, Presentation and Demonstration
- Site Visits, if required, with Proposers
- Re-evaluate and score
- Issuance and evaluation of Best and Final Offer, if necessary
- · Recommend highest scored Proposer for award

Award may be made without discussion of proposals received; therefore, proposals should be submitted on the most favorable terms the Proposer can provide. A recommendation for contract award may be made solely on the written response, or firms that fall within a competitive range may be invited for oral interviews/presentations. These interviews/presentations shall include time for questions, answers, and discussion and may be recorded or videotaped. A specific agenda for oral interviews/presentations may be provided.

END OF SECTION THREE

SECTION FOUR STATEMENT OF WORK

SECTION FOUR – STATEMENT OF WORK

1.0 BACKGROUND

Energy Imbalance Market (EIM), also known as "The Market," is a real-time wholesale energy trading market that enables participants anywhere in the western United States to buy and sell energy when needed. Participating utilities use the EIM to balance supply and demand within their respective service areas in real-time by scheduling power deliveries every fifteen minutes with five-minute resource dispatching. EIM's advanced market systems automatically find the lowest-cost energy to serve real-time customer demand across a wide geographic area. Utilities will maintain control over their assets and remain responsible for balancing requirements while sharing in the cost benefits the market produces for participants.

Joining EIM will require a number of business process and information technology system changes. Included in the informational technology system are the additions of the EIM Merchant Settlement and EIM Entity Settlement Transmission Billing systems capable of processing EIM Settlements.

2.0 PROJECT OBJECTIVES

The purpose is to procure the hosted EIM Merchant Settlement and EIM Entity Settlement Transmission and Billing Systems to support participation in the California Independent System Operator's (CAISO) western EIM. These systems will provide LADWP a programmatic solution to verify EIM Settlements, EIM Re-Settlements, and provide independent Shadow Settlements.

By utilizing EIM across a larger geographic area, LADWP, like other utilities, will more effectively manage to serve their demand while significantly lowering the cost of delivering power to customers.

3.0 SCOPE OF WORK

- 3.1 The Contractor shall provide/configure/maintain and train on the EIM Settlements System(s) and the accompanying aspects, such as (but not limited to):
 - 3.1.1 Software Licenses
 - 3.1.2 Vendor Implementation Project Team efforts
 - 3.1.3 Support services
 - 3.1.4 Maintenance
 - 3.1.5 Concurrency with market changes
 - 3.1.6 Training
 - 3.1.7 Documentation
 - 3.1.8 Any needed customizations to the application to meet LADWP requirements.

3.2 The Project Milestone Schedule target dates are based on an anticipated Notice to Proceed date of May 2019, and substantial completion of the Project to occur eleven (11) months thereafter. Contractor's Project Milestones estimated dates will be agreed upon during negotiations.

No.	Milestone Description	Target Date
1	Notice to Proceed (NTP) issuance by LADWP	May 2019
2	Delivery of base functional and technical design documentation	TBD
3	LADWP functional design document sign-off	TBD
4	LADWP technical design i.e. document sign-off	TBD
5	Successful completion of Factory Acceptance Testing	TBD
6	Successful completion of Site Acceptance Testing	TBD
7	Vendor Training Completed	TBD
8	Day in the Life Testing	TBD
9	Market Simulation	TBD
10	Parallel Ops	TBD
11	Go Live	April 2020

- 3.3 The EIM Merchant Settlement System shall provide the following:
 - 3.3.1 Programmatic interfaces with EIM systems
 - 3.3.2 Process and receive meter data with EIM
 - 3.3.3 Process EIM Settlements
 - 3.3.4 Process EIM invoices
 - 3.3.5 Aid EIM settlement disputes
 - 3.3.6 Create predictive and Shadow EIM Settlements; and
 - 3.3.7 Provide reporting based on EIM Settlements.
- 3.4 The EIM Entity Settlement and Transmission Billing System shall provide the following:
 - 3.4.1 Programmatic interfaces with EIM systems;
 - 3.4.2 Process, submit, and receive meter data with EIM
 - 3.4.3 Process EIM Settlements
 - 3.4.4 Process EIM invoices
 - 3.4.5 Aid EIM Settlement disputes
 - 3.4.6 Allocate EIM Settlements
 - 3.4.7 Create transmission billing summaries
 - 3.4.8 Create predictive and shadow EIM settlements;
 - 3.4.9 Provide reporting based on EIM settlements and/or transmission billing

- 3.5 The System(s) shall also support CAISO settlements for existing CAISO Market activities, including:
 - 3.5.1 Tracking Awarded Day-Ahead Market Redesign and Technology Upgrade (MRTU) clearing
 - 3.5.2 Greenhouse Gas (GHG) obligations
 - 3.5.3 Scheduled MRTU trades
 - 3.5.4 Submitted Inter-SC trades
 - 3.5.5 Entered Bids for Hour-Ahead Scheduling Process (HASP).

4.0 DETAILED TECHNICAL REQUIREMENTS (CONSULTANT REQUIREMENTS) AND CONTRACT DELIVERABLES

The detailed requirements are included in the following sections 4.1 through 4.22 and Attachments A through D located at the end of Section Four.

- Attachment A (EIM Merchant Settlement System Requirements)
- Attachment B (EIM Entity Settlement and Transmission Billing System Requirements)
- Attachment C (Technical requirements Applies to Both Systems)
- Attachment D (Cloud Hosted requirements Does <u>not</u> apply to on premise System)

<u>Proposers offering the EIM Merchant Settlement System must address Detailed</u> Requirements: (4.1 to 4.10) and Attachment A

4.1 [MERCHANT] Receive and Process Meter Data from the Market

- 4.1.1 The System shall be capable of receiving and processing meter data from The Market.
- 4.1.2 The System shall be configured with the participating generating resources and interval length as defined in LADWP's SQMD Resource Template; 5-minute or hourly. This includes only the EIM PRSC.
- 4.1.3 The System shall be configured with all Resource IDs included in LADWP's Generator Resource Data Template ("GRDT").
- 4.1.4 As resources are added, updated, or retired, the System vendor must support the changes and be able to download and process from The Market on a timely basis; next day, by Trade Date plus eight (8) business days (T+8B), and by Trade Date plus fortyeight (48) business days (T+48B).

4.2 [MERCHANT] Process EIM settlements

- 4.2.1 The System shall be configured to process EIM settlements published by The Market. Configuration should be based on the effective ISO Configuration file published by the Market to allow processing of the following files:
 - 4.2.1.1 SC Statement File
 - 4.2.1.2 SC Settlement Determinant File
 - 4.2.1.3 ISO Settlement Determinant File
- 4.2.2 The System shall be capable of processing the EIM Settlements published daily. EIM Settlements for the PRSC is for both the PRSC and resources. EIM Settlements for resources include only Participating Resources (PRs).

4.3 [MERCHANT] Create Predictive and Shadow EIM Settlements

- 4.3.1 Predictive EIM Settlements: The System shall be able to create accurate predictive EIM Settlements on a daily basis for the previous day. Accurate predictive EIM Settlements shall allow the Merchant do the following:
 - 4.3.1.1 Review settlement impact before receiving the Initial Settlement Statement T+3B and the Recalculation Statement T+12B
 - 4.3.1.2 Submit inquiries to CAISO Customer Inquiry Dispute and Information (CIDI) System for the following issues:
 - 4.3.1.2.1 Inaccurate or abnormal published prices
 - 4.3.1.2.2 Inaccurate or abnormal published market results
 - 4.3.1.3 Troubleshoot anomalies for the following issues:
 - 4.3.1.3.1 Inaccurate generation meter data
 - 4.3.1.3.2 Merchant or Entity scheduling operational issues
- 4.3.2 The System shall use the following data inputs for accurate predictive EIM Settlements:
 - 4.3.2.1 Snapshot of base schedule from Base Schedule Aggregation Portal (BSAP)
 - 4.3.2.2 Dispatches from Automated dispatch Signal (ADS)
 - 4.3.2.3 Outages and derates from Outage Management System (OMS)
 - 4.3.2.4 Market Results from California Market Results Interface (CMRI)
 - 4.3.2.5 Market Results from OASIS

- 4.3.2.6 Meter Data download from Market Results Interface Settlements (MRI-S)
- 4.3.2.7 Historical EIM Settlements
- 4.3.3 Shadow EIM Settlements: Accurate shadow EIM Settlements will allow the PRSC to submit disputes to CAISO CIDI for inaccurate EIM Settlements based on missing or inaccurate data used. The System shall be able to create accurate shadow EIM Settlements on a daily basis for the Initial statements, Recalculation statements, and Rerun statements Settlement cycles when published:
 - 4.3.3.1 Snapshot of base schedules from BSAP
 - 4.3.3.2 Dispatches from ADS
 - 4.3.3.3 Outages and de-rates from OMS
 - 4.3.3.4 Market Results from CMRI
 - 4.3.3.5 Market Results from OASIS
 - 4.3.3.6 Meter Data download from MRI-S
 - 4.3.3.7 Other EIM Settlement determinants
- 4.3.4 The System shall use first principles (i.e., client data) to verify the accuracy of CAISO's charge codes where available for accurate shadow EIM Settlements.

4.4 [MERCHANT] Process EIM Invoices

The System shall be configured and capable of processing of EIM invoices published weekly by The Market. The System shall be able to validate that aggregate of the appropriate EIM settlements matches the EIM invoices.

4.5 [MERCHANT] Create Reports based on EIM settlements

- 4.5.1 The System shall be able to allow the PRSC to create customized reports based on EIM settlements using the following parameters:
 - 4.5.2.1 Date Options: interval, daily, monthly, quarterly and yearly
 - 4.5.1.2 EIM Settlement determinants:
 - 4.5.1.2.1 Charge code amounts, quantities, and prices
 - 4.5.1.2.2 Determinant amounts, quantities, and prices
 - 4.5.1.3 Settlement Runs: Predictive Settlements and Shadow Settlements
 - 4.5.1.4 Settlement Cycles: Initial, Recalculation, and Rerun

- 4.5.1.5 Resources: Entity, Non-Participating Resources (NPR), Interchange Schedules, and EIM Load Aggregation Point (ELAP) Load
- 4.5.2 Reports shall allow the Entity to create customized reports for the following purposes:
 - 4.5.2.1 Inquiry
 - 4.5.2.2 Audit purposes
 - 4.5.2.3 Trending and Identifying Anomalies
 - 4.5.2.4 Prior day(s) performance feedback
 - 4.5.2.5 Dispute purposes
 - 4.5.2.6 Counter Factual

4.6 [MERCHANT] Interfaces

- 4.6.1 The System shall provide APIs for getting CAISO and non-CAISO sourced data in and for importing and exporting Settlements related data for Settlements and Billing purposes and provide information to other LADWP systems programmatically. Interfaces shall be defined during the design phase, and documented in design documentation.
- 4.6.2 The Merchant Settlement system shall have analytics capability to validate accuracy of market data and dispatches. Examples include but are not limited to the following:
 - 4.6.2.1 Display data graphically of base schedules, dispatches, LMPs, meter data, outages, deviations, start-up and shut downs by downloading the data from CAISO systems.
 - 4.6.2.2 Have a drill down data capability from weekly to daily down to 5-minute data
 - 4.6.2.3 Have the ability to perform validation of dispatches against Master File parameters and be able to perform ad-hoc analysis of CAISO dispatches.
 - 4.6.2.4 Have validation capability against user programmable parameters such as ramp rate violations deviations across an input time period etc.

<u>Items 4.7 - 4.10 are option services that may be exercised by LADWP</u> during the Agreement term.

4.7 [MERCHANT] Extended Day-Ahead Market Enhancement (eDAM)

LADWP may be interested in joining a future eDAM market. LADWP requests the Contractor shall price the incremental cost to make optional

future modifications to LADWP's EIM implementation, to the extent the Contractor is able to estimate a cost to satisfy the changes identified in the requirements provided in Attachment A at the end of Section Four.

4.8 [MERCHANT] DAME Impacts to EIM

CAISO Day Ahead Market Enhancements (DAME) changes which may impact EIM. Contractor shall provide possible future modification to the base EIM implementation to the extent the Contractor is able to estimate a cost to satisfy the changes identified in the requirements provided in Attachment A at the end of Section Four. If the Contractor is not able to evaluate or estimate a cost for the requirements the Contractor shall provide a detailed explanation as to why not, and what additional information would be required to complete an estimate.

4.9 [MERCHANT] DAME impacts to MRTU

Contractor shall Identify potential DAME changes that will impact existing LADWP participation in CAISO Market Redesign and Technology Upgrade (MRTU) (e.g. intertie bidding). LADWP is only asking for pricing for future modifications to existing MRTU products which will have been implemented at LADWP to the extent the Contractor is able to estimate a cost to satisfy the changes identified in the requirements provided in Attachment A at the end of Section Four.

4.10 [MERCHANT] Deal Capture

LADWP may be interested in Contractor's standard electricity Deal Capture offering price and scope. Scope descriptions shall include a design overview, information on best practice data structure, information on common / best practice user interfaces, information on common / best practice APIs (e.g. to third party tagging or settlement applications).

Proposers offering the EIM Entity Settlement and Transmission Billing System must address detailed requirements: (4.11 to 4.19) and Attachment B

4.11 [ENTITY] Process and Submit Meter to the Market

- 4.11.1 The system shall be able to accept meter data from an external LADWP system and submit to The CAISO Market's MRI-S.
- 4.11.2 The System shall be capable of Interfacing with LADWP Financial Systems as well as the LADWP Production Systems

- 4.11.3 The System shall be configured with the following resource types and interval length as defined in LADWP's Settlement Quality Meter Data (SQMD) Resource Template, 5-minute, 15-minutes or hourly:
 - 4.11.3.1 Generator both participating and non-participating generating resources: The System shall be configured to submit meter data for generating resources. This includes both the EIM Entity Scheduling Coordinator ("EESC") and EIM Participating Resource Scheduling Coordinator PRSC. The System shall be configured with all Resource IDs included in LADWP's Generator Resource Data Template ("GRDT").
 - 4.11.3.2 Branch Group both import and export interties: The System shall be configured to submit meter data for intertie resources. The intertie is a transmission corridor that interconnects the CAISO Balancing Authority Area (BAA) with another BAA or an EIM Entity BAA with another BAA. The System shall be configured with all Financial Interties (Counter Flows) and TIEs (Interties) included in LADWP's EIM Bubble Diagram.
 - 4.11.3.3 Load calculated BAA demand, or EIM Load Aggregate Point (ELAP): The System shall be configured to submit a calculated ELAP value for the demand resource. Using the generation and tie meter data as Settlement Quality Meter data ("SQMD"), the external system shall calculate the LADWP's BAA load and adjust for losses to create ELAP value. The System shall be configured with the Load Resource ID included in LADWP's Intertie Resource Data Template ("IRDT").
- 4.11.4 As resources are added, updated, or retired, the System Contractor must support the changes and be able to submit to and download from the CAISO Market on a timely basis; next day, by T+8B, and by T+48B.

4.12 [ENTITY] Process EIM settlements and Allocate for Transmission Billing

4.12.1 EIM Settlements: The System shall be configured to process EIM settlements for multiple SCIDs published by the CAISO

Market. Configuration should be based on the effective ISO Configuration file published by the Market to allow processing of the following files:

- 4.12.1.1 SC Statement File
- 4.12.1.2 SC Settlement Determinant File
- 4.12.1.3 ISO Settlement Determinant File
- 4.12.2 The System shall be capable of processing the EIM settlements published daily. EIM Settlements for the EESC is for both the Entity and resources. EIM Settlements for resources include the following resource types:
 - 4.12.2.1 Non-Participating Resources (NPRs)
 - 4.12.2.2 Interchange Schedules
 - 4.12.2.2.1Transaction-Based Intertie Schedules
 - 4.12.2.2.2Ghost Resource Schedules
 - 4.12.2.2.3EIM Transfer System Resource ("ETSR") Schedules
 - 4.12.2.2.4Mirror Resource Schedules
 - 4.12.2.2.5Tie Generator Resource Schedules
 - 4.12.2.3 ELAP Load Resource
- 4.12.3 Transmission Billing: The System shall be configured to allocate EIM settlements for transmission billing. Configuration shall be user defined and shall be based on LADWP's allocation methodology. LADWP's allocation methodology shall be based on LADWP's Open Access Transmission Tariff (OATT) and/or Business Practice for the EIM. Configuration shall be based on the following data sets and mappings:
 - 4.12.3.1 Data:
 - 4.12.3.1.1 EIM Settlement files downloaded from MRI-S
 - 4.12.3.1.2Meter Data for Load Customers
 - 4.12.3.1.3Interchange Schedules for Intertie Customers
 - 4.12.3.2 Mapping:
 - 4.8.3.2.1 Company Resource Mapping for allocation to Generation and Load Customers
 - 4.8.3.2.2 Company Purchasing and Selling Entity (PSE) and Tag PSE Mapping for allocation for Intertie Customers
 - 4.12.3.3 The System shall be capable of allocating the EIM settlements for Transmission Billing on a daily basis.

4.13 [ENTITY] Create Predictive and Shadow EIM Settlements

- 4.13.1 Predictive EIM Settlements: The System shall be able to create accurate predictive EIM Settlements on a daily basis for the previous day. Accurate predictive EIM Settlements shall allow the Entity do the following:
 - 4.13.1.1 Review settlement impact before receiving Recalculation Statement T+12B
 - 4.13.1.2 Submit inquiries to CAISO Customer Inquiry Dispute and Information (CIDI) system for the following issues:
 - 4.13.1.2.1 Inaccurate or abnormal published prices, or4.13.1.2.2 Inaccurate or abnormal published market results.
 - 4.13.1.3 Troubleshoot anomalies for the following issues:
 4.13.1.3.1Inaccurate generation or intertie meter data,
 4.13.1.3.2Incorrect calculated load meter data, or
 4.13.1.3.3Entity scheduling operational issues.
- 4.13.2 The System shall use the following data inputs for accurate predictive EIM Settlements:
 - 4.13.2.1 Snapshot of base schedules from BSAP
 - 4.13.2.2 Final EIM Test Results from BSAP
 - 4.13.2.3 Snapshot of Interchange Schedules to the Real Time Interchange Schedule Data Interface (RTSI)
 - 4.13.2.4 Dispatches from the ADS
 - 4.13.2.5 Outages and derates from the OMS
 - 4.13.2.6 EIM and Market Results from the CMRI
 - 4.13.2.7 EIM and Market Results from the OASIS
 - 4.13.2.8 Meter Data submitted to the MRI-S
 - 4.13.2.9 Historical EIM Settlements
- 4.13.3 Shadow EIM Settlements: The System shall use primary determinants (i.e. LADWP data) to verify the accuracy of CAISO's charge codes where available and ensure accurate shadow EIM Settlements.
- 4.13.4 The System shall be able to create accurate shadow EIM Settlements on a daily basis for the following settlement cycles when published: Initial statements, Recalculation statements, and Rerun statements. Accurate shadow EIM settlements shall allow the Entity to disputes to CAISO SDS for inaccurate EIM settlements based on missing or inaccurate data used:
 - 4.13.4.1 Snapshot of base schedules from BSAP
 - 4.13.4.2 Final EIM Test Results from BSAP

- 4.13.4.3 Snapshot of Interchange Schedules to RTSI
- 4.13.4.4 Dispatches from ADS
- 4.13.4.5 Outages and de-rates from OMS
- 4.13.4.6 EIM and Market Results from CMRI
- 4.13.4.7 EIM and Market Results from OASIS
- 4.13.4.8 Meter Data submitted to MRI-S
- 4.13.4.9 Other EIM settlement determinants
- 4.13.5 The System shall use primary determinants (i.e., client data) to verify the accuracy of CAISO's charge codes where available for accurate shadow EIM Settlements.

4.14 [ENTITY] Process EIM Invoices and Create Transmission Billing Summaries

- 4.14.1 EIM Invoices: The System shall be configured and capable of processing of EIM invoices published weekly by the CAISO Market. The System shall be able to validate that aggregate of the appropriate EIM settlements matches the EIM invoices.
- 4.14.2 Transmission Billing Summaries: The System shall be configured and capable of creating Transmission Billing Summaries when the EIM invoice is published weekly by The Market. The System shall be able to validate that aggregate of the appropriate Transmission Billing matches the Transmission Billing Summaries.

4.15 [ENTITY] Create Reports based on EIM settlements and/or Transmission Billing

- 4.15.1 The System shall be able to allow the Entity to create customized reports based on EIM settlements using the following parameters:
 - 4.15.1.1 Date Options: interval, daily, monthly, quarterly and yearly
 - 4.15.1.2 EIM Settlement determinants:
 - 4.15.1.3 Charge code amounts, quantities, and prices
 - 4.15.1.4 Determinant amounts, quantities, and prices
 - 4.15.1.5 Settlement Runs: Predictives and Shadow Settlements using primary determinant data
 - 4.15.1.6 Settlement Cycles: Initial, Recalculation, and Rerun
 - 4.15.1.7 Resources: Entity, NPR, Interchange Schedules, and ELAP Load
- 4.15.2 The System shall be able to allow the Entity to create customized reports based on Transmission Billing using the following parameters:

- 4.15.2.1 Date Options: interval, daily, monthly, quarterly and yearly
- 4.15.2.2 Transmission Billing determinants:
 - 4.15.2.2.1 Allocation amounts, quantities, prices
 - 4.15.2.2.2Determinant amounts, quantities, and prices
- 4.15.2.3 Settlement Cycles: Initial, Recalculation, and Rerun
- 4.15.2.4 Resources: Customers, NPR, Tags, and load
- 4.15.3 Reports shall allow the Entity to create customizable reports for the following purposes:
 - 4.15.3.1 Inquiry
 - 4.15.3.2 Audit purposes
 - 4.15.3.3 Trending and Identifying Anomalies
 - 4.15.3.4 Dispute purposes

4.16 [ENTITY] Interfaces

- 4.16.1 The System shall provide APIs for getting CAISO and non-CAISO sourced data in (first principles) and for importing and exporting Settlements related data for Settlements and Billing purposes, and provide information to other LADWP systems programmatically. Interfaces shall be defined during the design phase and documented in design documentation.
- 4.16.2 The System shall also be capable of exporting meter data values to LADWP and CAISO systems.

4.17 [ENTITY] Customization Consulting Hours

Customization support shall be included to meet the requirements in Attachment B.

<u>Items 4.18 - 4.20 are option services that may be exercised by LADWP during the Agreement term.</u>

4.18 [ENTITY] RC Services from the CAISO

The Contractor shall identify any potential software additions or modifications to support RC services. Pricing shall be included as an optional add-on to the EIM implementation to the extent the Contractor is able to estimate a cost to satisfy the changes identified in the requirements provided in Attachment B at the end of Section Four. Contractor shall identify if they are able to sequence an EIM implementation to satisfy the RC services earlier than a full EIM implementation.

4.19 [ENTITY] DAME Impacts to EIM

CAISO Day Ahead Market Enhancements (DAME) changes may impact EIM. LADWP requests Contractor to include optional pricing, as a possible future modification to the base EIM implementation to the extent the Contractor is able to estimate a cost to satisfy the changes identified in the requirements provided in Attachment B at the end of Section Four. If Contractor is not able to evaluate or estimate a cost for a requirement, Contractor shall provide a detailed explanation as to why not, and what additional information would be required to complete an estimate.

4.20 [ENTITY] Extended Day-Ahead Market Enhancement (eDAM)

LADWP may be interested in joining a future eDAM market. LADWP requests the Contractor shall price the incremental cost to make optional future modifications to LADWP's EIM implementation, to the extent the Contractor is able to estimate a cost to satisfy the changes identified in the requirements provided in Attachment B at the end of Section Four.

4.21 Training Plan

- 4.21.1 Contractor shall provide EIM Merchant Settlement and/or Entity Settlement and Transmission Billing System(s) training for a minimum of ten (10) LADWP employees that will be available off-site at Contractor's location and/or on-site at a facility designated by LADWP (on-site is preferred).
- 4.21.2 Contractor shall include a documented Training Plan in the submitted proposal. The plan shall contain a short description of all courses and to allow LADWP to effectively support the System implementation.
- 4.21.3 The training plan shall account for the following:
 - 4.20.3.1 Functional Training
 - 4.20.3.2 Administrative Training
 - 4.20.3.3 User Training
 - 4.20.3.4 System overview
 - 4.20.3.5 LAN training
 - 4.20.3.6 Operating System training.
- 4.21.4 The Training Plan shall include Course Descriptions and Course Materials to be retained by LADWP.
- 4.21.5 The Training Plan shall include, but not be limited to the following elements for each proposed training session:
 - 4.21.5.1 Title and anticipated results and methodology to

- measure if the training objectives have been met
- 4.21.5.2 Course pre-requisites
- 4.21.5.3 Intended audience (e.g., System user, support personnel)
- 4.21.5.4 LADWP employee qualifications required (if any)
- 4.21.5.5 Minimum & Maximum number (if any) of LADWP employees allowed to attend each training session.
- 4.21.5.6 Location and the responsible party (i.e., Contractor or LADWP) providing the training facilities (when proposing training at the Contractor's facilities, the Contractors shall describe the advantages of conducting the training there instead of at LADWP's site).
- 4.21.5.7 Equipment needed, the responsible party for supplying such equipment and expected equipment limitations (e.g., a description of how the training environment will differ from the final production environment)
- 4.21.5.8 Timeline for all training to be completed in compliance with Section Four, Scope of Work 3.2.Project Milestone Schedule.
- 4.21.5.9 Training session duration in hours
- 4.21.5.10 Learning objectives
- 4.21.5.11 All training materials shall be supplied by the Contractor. Cost of training material shall be included in Appendix B - Fee Schedules 1 & 2, and may be included in the per person session fee or itemized separately.
- 4.21.5.12 List of reference materials to be used in the course 4.21.5.13 Sample course evaluation survey
- 4.21.6 Contractor shall also provide instruction on best practices for using screens in common combinations.
- 4.21.7 Contractor shall schedule delivery of trainings (from Training Plan) with LADWP. The corresponding training documents will be reviewed and approved in writing by LADWP in advance of any training sessions beginning.
- 4.21.8 Contractor shall provide electronic training or recording of live trainings to LADWP. Trainings shall be recorded and made available for non-synchronous participation of LADWP personnel that may not be able to attend original session(s) in person.
- 4.21.9 All Contractors training shall be a reasonable facsimile of LADWP conditions, configuration and data.

- 4.21.10 The Contractor shall design and deliver all training sessions in a timely manner to coincide with and support all critical phases in Section Four, Scope of Work 3.2.Project Milestone Schedule. (e.g., delivery of the Product Development System, Pre-Factory Acceptance Testing, etc.).
- 4.21.11 LADWP shall have the right to reproduce Contractor's training plan materials, or extract Contractor's training material content for inclusion in LADWP developed training material, for use in future training of LADWP personnel. The Contractor shall deliver the training material in an editable format (i.e. MS PowerPoint or MS Word).
- 4.21.12 The Contractor shall provide instructors who are knowledgeable in both System functionality and course presentation.
- 4.21.13 The Contractor shall conduct course evaluations to ensure the associated training objectives have been met for all sessions.
- 4.21.14 All trainings shall be available via WebEx or similar functionality for LADWP staff attending remotely and shall be recorded and available to LADWP for playback for a period of at least 30 calendar days (e.g. via internet link, Contractor training system, DVD). The recordings are confidential and remain the property of Contractor.
- 4.21.15 Each training session, during Factory Acceptance Testing, the contractor shall provide four 8 hour days of hands-on product training to LADWP employees. Training audience is testing and subject matter expert staff.
- 4.21.16 For each training session, prior to the beginning of Market Simulation and/or Parallel Operations, Contractor shall provide the following:
 - 4.21.16.1 Up to two 8 hour days of training on the Design, Configuration, Data Model, Business Logic and UI
 - 4.21.16.2 Three 8 hour days of hands-on product training.
 - 4.21.16.3 Up to four 8 hour days of training on Product maintenance and configuration
- 4.21.17 Contractor shall provide electronic copies of training materials, including power point slides, documents, spreadsheet models/examples and other materials.
- 4.21.18 Contractor shall provide hard copies of training materials as practical, including power point slides, documents and other materials.

- 4.21.19 Training executed at Contractor's location, access to workstations and all relevant applications shall be provided configured in advance of the training.
- 4.21.20 Contractor shall provide training for System and Network integration.
- 4.21.21 The Contractor shall provide a training environment as early in the project as applicable. This environment shall be an accurate representation of the LADWP production environment in source data, performance, interfaces, configuration, etc.

4.22 Software Maintenance and Support Services

The EIM Systems shall include a software maintenance and support services package with twenty-four hours a day, seven days a week (including holidays) availability of support resources for critical issues and eight hours a day, five days a week (Monday – Friday) support for non-critical issues. The maintenances shall include software updates releases and all associated patches. There shall be a minimum of two software update releases per year.

5.0 REPORTING

A progress report shall be prepared by Contractor and sent via email one (1) day prior to any scheduled project meetings (determined by LADWP's Project Management.) The details and content of the progress report shall be determined by the project managers and shall contain the following at a minimum:

- 5.0.1 An updated detailed project milestone schedule, with explanations for any changes
- 5.0.2 A detailed list of all activities completed since the previous report
- 5.0.3 A detailed list of activities not accomplished since the previous reports and the reasons and contingency plans to recover
- 5.0.4 The status of unresolved contract changes and issues
- 5.0.5 A list of current or anticipated problem areas
- 5.0.6 Identification of any item that might impact vendor's ability to meet schedule
- 5.0.7 Updated list of Action Items identifying owner along with required resolution dates
- 5.0.8 Updated Risk Log including a ID, brief description, owner, expected completion date

[Attachments A to D follow.]

NOTE: The below grids are excerpts from a master list of EIM System Functional Requirements. These are internal ID references and are maintained for LADWP purposes. For the system, the requirement IDs numbering will not be necessarily useful to the Contractor beyond their uniqueness. Non-sequential lists are not a mistake.

1. EIM Merchant Settlements System Functional Requirements

ID	Requirement Description
205	System shall support the automatic retrieval of all CAISO Market and EIM relevant information (included but not limited to Prices and Congestion Revenue Rights (CRR) Inventory) from OASIS via an API. Data retrieval details shall be outlined during the design phase and captured in the detailed design document.
206	System shall support the automatic retrieval and storage of all CAISO Market and EIM relevant information (e.g. Settlement Statements, Billing Determinants and Settlement Invoices) from MRI-S via an Secure File Transfer Protocol (SFTP).
207	System shall have the ability to shadow and settle all charges that shall be incurred by the LADWP's participation in the CAISO market. Shadow Settlement is calculating CAISO's charge codes using primary determinants (i.e. LADWP data) to verify CAISO's charge codes details on how shadow settlements shall be derived shall be outlined in during the design phase and captured in the detailed design document
208	View CAISO settlement statement data -System shall present the CAISO Statement sourced Settlement data/determinants in a clear/concise manner. System shall also be able to manually retrieve data in the case of an after-the-fact adjustment by the CAISO, such as a Price Correction
209	View LADWP shadow settlement data -System shall present the LADWP sourced and CAISO sourced shadow Settlement data/determinants in a clear/concise manner. Charge codes required for shadow settlement shall be outlined in during the design phase and captured in the detailed design document.
210	Calculate the CAISO charge results using ISO Statement data and confirm the results match the statement results. (Identify any deltas.)
211	System shall calculate the CAISO charges using LADWP sourced Settlement data as the primary determinant for calculation.
212	System shall identify and display Settlement calculation result deltas between results based on LADWP sourced data, and results from the CAISO statement.
213	System shall display Settlement results deltas with drill down capability from charge code to input components.
214	System shall be capable of calculating forecasted settlement results based on input data provided by LADWP sources.

215	System shall have the ability to compare a given day's Settlement forecast to the actual ISO Settlement results. The daily comparison shall be further available on an hourly, 15-min and 5-min granularity.
216	 Given an identified, disputable settlement issue, the Settlement System shall provide the following: The necessary base CAISO Dispute information and all supporting data for the user to submit to CAISO Dispute Portal
	 The user the ability to drill down to the lowest granularity allowed by the CAISO market The user the ability to comment to any discrepancy item(s).
217	Settlement system is capable of scheduling and automating routine tasks based on what is posted to CAISO MRI-S SFTP site.
218	System shall monitor disputed amounts within System and shall identify the dispute was resolved when settlement values are adjusted.
219	System shall store CAISO Statement data in a logical database that is accessible via some query mechanism or self-service analysis tool by Settlement analysts.
220	Timeliness of settlement, invoice, and appropriate determinant data availability: Data shall be made available in System or interfaced from System to a data warehouse, in a timely fashion, ensuring the ability to perform all expected tasks.
221	System shall maintain a CAISO Invoice calendar that is consistent with the CAISO Invoice Calendar.
222	System shall be capable of scheduling and automating routine CAISO Invoice tasks based on Systems CAISO Invoice calendar.
223	System shall perform the retrieval, processing and storing of CAISO Invoices.
224	System shall perform the reconciliation of CAISO Invoices. System automatically identifies correct Statement data and Trade dates for inclusion in the reconciliation based on the CAISO Invoice calendar.
225	System shall store CAISO Invoice data in a logical database that is accessible via a querying mechanism or other self-service analysis tool by Settlement analysts.
226	System shall process all EIM Settlement Statements: Initial, Recalc, Rerun, ad hoc
227	System shall allow the user the ability to download statements manually (e.g. via XML, JavaScript Object Notation (JSON) or CSV)
228	System shall retrieve and store all CAISO data necessary to reconcile Market Operator settlements from the CAISO CMRI System for a Participating Resource Scheduling Coordinator (PRSC).
229	System shall provide the user the ability to export any or all volumetric data to Excel
230	System shall provide the user the ability to group transaction points for viewing volumetric data.

231	System shall provide the user the ability to create custom views of volumetric data and save template/view for future use by individual user or by any product user.
232	System shall provide the user the ability to drill down to the most granular applicable interval for each charge code and all related components, both before and after allocation.
233	System shall provide the user the ability to drill down to resource/asset level for each charge code and all related components, both before and after allocation.
234	System shall provide the user the ability to create custom estimation methods for shadowing charge types including (but not limited to): average of specified date span, fixed amount entered manually
235	System shall provide the user the ability to enter adjustments and rerun shadow settlements based on those adjustments and log any adjustments for audit purposes
236	System shall provide the user the ability to view settlements data based on filters. Contractor shall supply a list of the filters available. For instance, by day, by resource and by dollar value.
237	System should indicate the settlement version of the transactions that are interface from Bid to Bill - such as Pre-Settlement, Initial, Recalc., Rerun, Etc.
238	System shall provide the user the ability to view a monthly summary of dollars (by day) of energy, congestion, losses, operating reserves for Day-Ahead (DA) and Real Time (RT). System shall provide user a summary/trend of various charge code information.
239	System shall provide the ability to attach comments for each settlement estimate and each settlement run.
240	System shall provide the user the ability to calculate/display at a daily level for Day-Ahead only (current day) or Day-Ahead + RT (previous day) the following information: • DA, RT, and Balancing MWH for Generation, Demand, and Transactions, • Make Whole Payment estimates using Bid/Offer results and ISO logic (displayed by unit for both Day-Ahead and Real Time). • User ability to designate a unit at must run or cost capped to be included in the calculation
241	System shall provide the user the ability to display P/L by unit, by day, month, quarter, year.
242	System shall allow the user the ability select and display (or not) charge types that have been retired DA and RT Gen MWh.

	System shall provide the capability to report in month-to date daily
	spreadsheet the following information:
243	 DA and RT load MWh, Calculated dollars for net interchange for DA & RT Market,
	 Load revenue by account and zone.
	Note: DA MWh information is financially non-binding for EIM resources.
	System shall provide the ability to compare settlements by trade dates for
244	summary total by charge code for: Pre-Settlement, initial, recalculations, and
	reruns. Shadow Settlements shall be generated using primary determinants
	(i.e. LADWP's data). System shall provide the user the ability to view summary total by trade date
245	statement.
0.40	System shall provide the user the ability to compare shadow statements
246	against any settlement cycle for a range of trade dates.
	System shall provide the user the ability to download volumetric data via XML,
0.47	JSON or CSV, but not limited to, all market awards, meter data, CRR awards
247	and nominations, expected energy, deemed energy, default energy bids, offer curve, self-schedules, economic schedules, capacity offers, mitigated offers,
	convergence bid offers, CMRI data, SIBR data and OASIS data.
	System shall provide the user the ability to upload volumetric data via XML,
	JSON or CSV, but not limited to: all market awards, meter data, CRR awards
248	and nominations, expected energy, deemed energy, default energy bids, offer
	curve, self-schedules, economic schedules, capacity offers, mitigated offers,
	convergence bid offers, CMRI data, SIBR data, and OASIS data. System shall provide the user the ability to independently view volumetric
	data, specifically all market awards, meter data, CRR awards and
249	nominations, expected energy, deemed energy, default energy bids, offer
	curve, self-schedules, economic schedules, capacity offers, mitigated offers,
	convergence bid offers, CMRI data, SIBR data, and OASIS data.
	System shall provide the user the ability to view and filter volumetric data by
	range of dates, range of hours, range of start times, range of end times, increment/interval, SCID, transaction point, data type, trade contract,
250	commodity type, execution type, status (e.g. valid, modified, submitted,
	mitigated, etc.), source (e.g. market/internal), CRR Identification, CRR file
	name, source point and sink point.
	System shall provide an interface to ETRM system, sufficient to accomplish
	reconciliation level detail of awards, prices, meter and settlement data in order
	 to: Integrate with LADWP AR/AP system for communication of CAISO
251	Invoice Payment approval,
	Accomplish mapping to LADWP and FERC accounting codes for
	accounting, settlement, and reporting purposes
	Support all CAISO invoicing AR/AP.

252	System shall allow the user to perform Profit & Loss (P&L) review and analysis for each business transaction activity, using all the information available from the EIM markets results and LADWP expected outcomes. The reporting of this information shall be available on the following time granularity: day, week, month, quarter and year.
253	The system P/L reporting capability shall allow the user to create and generate customized reports and perform additional Extract, Transform and Load (ETL) based on the available data categories in System.
254	System shall provide a screen to review the total Energy Base Schedules of all Participating and Non-Participating Resource along with the Load Forecasts configured in the screen as described in the future Detailed Design document. The description shall be outlined in during the design phase and captured in the detailed design document.
255	System shall retrieve and store all CAISO data necessary to reconcile Market Operator settlements from the CAISO ADS System for a PRSC.
256	System shall retrieve and store all CAISO data necessary to reconcile Market Operator settlements from the CAISO MRI-S System for a PRSC.
257	System shall retrieve and store all CAISO data necessary to reconcile Market Operator settlements from the CAISO MRI-S System for a Non Participating Resource Scheduling Coordinator (PRSC).
258	System shall retrieve and store all CAISO data necessary to reconcile Market Operator settlements from the CAISO OASIS System for a PRSC.
259	System shall capture all Internal LADWP sourced data necessary to reconcile Market Operator settlements.
260	System shall perform a full Shadow Settlement with independent validation of CAISO settlement using LADWP version of data (which could include LADWP's internal, CAISO data, or a combination of both from a date range or charge codes selection perspectives) to calculate LADWP estimated Shadow Settlement.
261	System shall support the submission/retrieval of all CAISO Market and EIM relevant information (e.g. Bids, Inter-SC Trades (IST), Bid Status) to/from Scheduling Infrastructure Business Rules (SIBR) via an API.
262	System shall support the submission/retrieval of all EIM relevant information (e.g. Hourly Resource Plans, Hourly Resource Plan Status) to/from BSAP via an API.
263	System shall support the automatic retrieval of all CAISO Market and EIM relevant information (e.g. Awards, Prices, Balancing Test Results, and Sufficiency Test Results) from CMRI via an API.
264	System shall support the automatic retrieval of all CAISO Market and EIM relevant information (e.g. Start-Ups, Shut-Downs, Multi-Stage Generation (MSG) Transitions, Intertie Instructions and Dispatch Operating Targets (DOT) from ADS via an API.

265	System interfaces shall have appropriate error handling logic for logging of failures, retry logic, etc. The specifics of the interface error handling logic shall be determined during the design process in consultation with the software Contractor.
266	System shall periodically, and in response to user-initiated requests, query each CAISO System with which it has an API (e.g. BSAP, SIBR) to ensure that LADWP system data and CAISO data remain in sync. The appropriate query criteria, periodicity and business rules for resolving conflicts shall be determined during the design process in consultation with the software Contractor.
267	System shall provide the ability to automatically send notifications via SMS Text Messaging, email or pager, directly from within System to both internal and external entities.
268	System shall provide the ability to email reports directly from within System.
269	The system shall allow customization of distributions (e.g. email, SMS, text) to specific users, roles or groups.
270	System shall facilitate LADWP's ability to replicate the entire database in a separate data warehouse (e.g. PACE).
271	System shall support multiple Scheduling Coordinators to allow the separation of LADWP's CAISO Market transactions and LADWP's EIM Transactions
272	System shall support data versioning within the database. The specifics of the versioning approach shall be determined during the design process in consultation with the software Contractor.
273	LADWP shall have full ownership and access to all data stored in merchant system database. There shall be no restrictions to LADWP accessing, exporting or replicating merchant data. The appropriate approach to accessing, exporting or replicating merchant data to minimize impacts to System performance shall be determined during the design process in consultation with the software Contractor.
274	System shall allow for all screens to be exportable to MS Excel, CSV, JSON and XML formats.
275	System shall provide a validation/confirmation of receipt by CAISO of all submissions from LADWP to CAISO.
276	The CAISO is continuously modifying both the CAISO Market and the EIM. This includes changes to the available products, timelines and systems. In particular, several EIM enhancements are planned prior to LADWP's go-live. System shall support the CAISO Market and EIM specifications at LADWP's anticipated Go-Live at Contractor cost.
277	System shall support the CAISO Market and EIM specification changes after LADWP's anticipated Go-Live at Contractor's cost through the term of the contract. This shall include deploying changes to test systems with sufficient time to test, providing documentation and testing plans for changes, and supporting testing, cutover planning, and cutover to production.

	The workflow management capabilities and natification process of System
	The workflow management capabilities and notification process of System shall be provided as described in the future Detailed Design document; the
278	description shall be outlined in during the design phase and captured in the
	detailed design document.
279	System shall allow a user to Add/Edit User.
280	Access to screens and functions shall be configurable within System.
	System shall allow users with appropriate permissions to view and modify
281	data on the User Interface (UI). Access levels shall be governed by the
	assigned role of the user.
282	System shall be able to restrict access to both displays and data objects
202	according to roles.
283	System shall restrict functionality according to roles (e.g. the ability to view
203	only for one role and both read and write for another role).
284	System shall allow users or roles to be organized into groups.
285	System shall maintain all certificates necessary to access CAISO systems.
286	System shall have the ability to retrieve the CAISO commercial model/ PNode
	definition and store it within System using an effective dated framework.
	System shall maintain Generation, Intertie and Load resource parameters
287	using an effective date framework to ensure that created and submitted
	transactions are consistent with the effective dated parameters.
000	System shall support all Generation, Intertie and Load resource parameters
288	permitted by the CAISO in the Master File / Resource Data Templates (RDT)
	for either the CAISO Market or EIM.
289	System shall support the definition of configurations for MSG resources
	including all MSG parameters. System shall support the definition of a transition cost multiplier for Multi-Stage
290	Generation (MSG). MSG files should be capable of being uploaded by
290	LADWP.
	System shall support the definition of all Greenhouse Gas (GHG) emission
291	rate parameters, including but not limited to the Heat Rate, EPA defined
_0.	emission assumptions, adder and negotiated maximum GHG bid adder.
222	Merchant Settlements UI shall provide standard views of OASIS data that
292	CONTRACTOR supports.
	Bid-to-Bill ('B2B') System shall simultaneously support the CAISO 'MRTU'
293	Market and Settlements, and the Western EIM as detailed further in these
	requirements.
	System shall automatically retrieve CAISO status changes to Day-Ahead
294	submissions to BSAP via API and store and display the CAISO status of each
	submission (e.g. Received, Approved, and Clean).
	System shall automatically retrieve submitted bid status and clean bid status
	from SIBR via API and store and display the CAISO status of each submission
295	(e.g. Received, Approved, Clean), as described in the future Detailed Design
	document; the description shall be outlined in during the design phase and
	captured in the detailed design document.

296	System reporting functionality shall allow a user to export data to Excel such
	that the user can easily 'slice and dice' the data.
	System shall provide a way to compare bid quantity/price versus award
297	Megawatt/Locational Marginal Price (MW/LMP), as described in the future
	Detailed Design document; the description shall be outlined in during the
	design phase and captured in the detailed design document.
	System shall provide the capability to create power price groupings for LMPs.
298	CONTRACTOR shall configure resources groups as part of the existing scope
290	and as described in the future Detailed Design document; the description shall be outlined in during the design phase and captured in the detailed design
	document.
	System shall permit a Super User with "System Administration" privileges to
	create dashboards in the back end of System to customize the view of
	different screens (e.g. show/hide columns or fields, change the order of
299	columns). Customizations shall affect all users that have access to the
	dashboard being modified (it's not on user basis). The System Administrator
	shall also have User Access rights
000	System shall automatically retrieve the Fifteen Minute Market (FMM) Awards
300	from CMRI for each Participating Resource for 15-minute interval.
	System shall automatically receive from ADS the DOT for each Participating
301	Resource for 5-minute interval. This information is advisory only to the
	Merchant. The BA and Plant manage compliance with dispatch instructions.
302	System shall provide on-line help, accessible from within the UI.
	Contractor shall maintain compliance with all CAISO specifications at
303	Contractor's cost through LADWP's EIM go-live date and through term of the
	contract.
	Merchant Settlements UI shall include an audit log which provides visibility
	into key changes to data (e.g. when Bids have been submitted). The audit log
304	shall include timestamps, user IDs, data IDs and other similar meta data to
	allow review and analysis of key changes. The audit log UI functionality is not
	intended to capture every data level change (e.g. every change in a Bid
	curve). Merchant Settlements UI shall include an IT log that captures information
	related to key processes such as the status of jobs, workflows, interfaces, etc.
	The IT log shall include timestamps, job names, statuses and other similar
305	meta data to support troubleshooting. The IT log UI functionality is not
	intended to capture every data level change (e.g. it does not need to display
	what values were received when an interface succeeded).
	Merchant Settlements UI shall support 'drill-down' type capability (e.g. if a user
	is looking at a dashboard or portfolio level view of resources for a day, clicking
200	on certain defined fields shall allow the user to view more detailed
306	information). The specific approach to achieving this functionality shall be
	determined during the design process in consultation with the software
	Contractor.
307	All data/displays shall include the relevant time stamps.

	Out the second of the initial transfer and the limit areas and to the second of the
308	System shall be initially configured to limit screens to those necessary for the CAISO Market and the EIM.
309	System shall Capture and display all awards data
310	System shall have the ability to view OASIS data with a GUI
0.10	System shall allow export of data to Excel from those UI screens that support
311	this functionality as described in the CONTRACTOR system functional
	specifications attached to the Statement of Work.
	System shall have the ability to view OASIS data for chosen intervals by
312	Transaction Point, Market Type (DA vs RT) and execution Type
	Merchant Settlements UI shall provide the ability to export all (or any) OASIS
313	data to CSV or Excel format.
314	
314	System shall allow a user to copy and paste unit characteristics on the UI.
315	System shall present a comparison of hourly, 15-min, and 5-min Load forecast to Load actual for the same.
	System shall have the ability to retrieve and display for review Real-Time
	Hour-Ahead Scheduling Process (HASP) and EIM activities results (Real Time
316	Pre Dispatch (RTPD) and Real Time Dispatch (RTD)) following the publication
	by CAISO (e.g. awards and prices).
	System shall automatically determine after-the-fact if any CAISO Real Time
	market results (HASP, RTPD, and RTD) are inconsistent with LADWP
317	submitted data. In the case of inconsistency, System shall notify the user of
	the non-conformity.
	System can output determinants in a file format where a deal capture system
318	can process based on merchant settlements statement data (predictive or
310	actuals).
	LADWP requires the capability be included in the merchant settlement system
	to validate accuracy of market data and dispatches. Examples include but are
	not limited to the following:
	Display data graphically of base schedules, dispatches, LMPs, meter
	data, outages, deviations and start-up and shut downs by downloading
	the data from CAISO systems
	Have a drill down data capability from weekly to daily down to 5-minute
523	data
	An ability to perform validation of dispatches against Master File
	parameters and be able to perform ad-hoc analysis of CAISO
	dispatches.
	Validation capability against user programmable parameters such as
	ramp rate violations deviations across an input time period etc.
	 Contractor shall also provide optionality to customize screens
	The settlement validation system module in bid cost recovery area shall be
717	able to validate the changes in expected energy calculation, expected energy
	allocation and commitment cost determination for EIM resources.
	anocation and commitment cost determination for Life lescurces.

800	Contractor shall automate the download of ALL CAISO data by using APIs to download: bids and offers, market awards, dispatch instructions, LMP prices, meter data, outage data, forecasts, settlement statements and supporting settlement files, and invoices. Contractor shall also automatically import data on configurable timelines by calendar days and business days. Downloads shall be manually initiated on demand by certain users and downloaded data shall be exportable in CSV or excel format and viewable in pivot tables
937	 LADWP requires the capability be included in the merchant settlement system to validate accuracy of market data and dispatches. Examples include but are not limited to: Display data graphically of base schedules, dispatches, LMPs, meter data, outages, deviations, start-up and shut downs by downloading the data from CAISO systems Have a drill down data capability from weekly to daily down to 5-minute data Have the ability to perform validation of dispatches against Master File parameters and be able to perform ad-hoc analysis of CAISO dispatches. Have validation capability against user programmable parameters such as ramp rate violations deviations across an input time period etc. Contractor shall also provide optionality to customize screens Have the ability to run what if scenarios by changing a parameter and re-running a historical day

2. EIM Merchant Settlements System eDAM Requirements

ID	Requirement Description
740	The settlement validation system shall be able to validate the new settlement charge codes settling imbalance reserve products. The functional areas shall include but not limited, 1. Imbalance reserve capacity settlement; 2. Performance evaluation of the imbalance reserve capacity; 3. No Pay/Penalty for Imbalance reserve capacity; 4. Bid cost recovery for Imbalance reserve capacity.
747	The system shall be able to validate the charge codes that settle the dayahead corrective capacity.
752	The system shall be able to validate the charge code changes relevant to inter-tie bidding in EIM area if that becomes effective. This validation shall be consistent with the validation of charge codes for CAISO inter-tie bidding activities.

3. EIM Merchant Settlements System DAME Impacts to EIM Requirements

ID	Requirement Description
720	The settlement validation system shall be able to validate the charge code changes related to accounting for regulation energy as instructed imbalance energy instead of uninstructed imbalance energy.
723	Any report or interface to summarize EIM activity, transactions and base schedules shall be changed to handle the 4 15-minute data for a trading hour. This includes but not limited to the report and UI layout and the associated calculations as well.

4. EIM Merchant Settlements System DAME impacts to MRTU Requirements

ID	Requirement Description
728	The settlement validation system shall be able to retrieve, store and manage all day-ahead cleared results including energy schedules, ancillary service awards and their prices in 15-minute interval.
729	The settlement validation system shall be able to validate all day-ahead charge code changes on 15-minute interval. This includes but not limited to, day-ahead energy settlement, day-ahead ancillary service settlement, Ancillary service No Pay and Day-ahead Bid Cost Recovery.
730	The settlement validation system module in bid cost recovery area shall be able to validate the changes in expected energy calculation, expected energy allocation and commitment cost determination for CAISO resources. This includes shall include all existing inter-tie and dynamic resources in CAISO.
731	The settlement validation system module in bid cost recovery area shall be able to recognize the potentially different day-ahead mitigated energy bid prices across 15-minute intervals for the same hour in the day-ahead expected energy allocation. It shall also be able to validate the day-ahead commitment cost determination on 15-minute interval instead of hourly.
732	The settlement validation system shall be able to validate the settlement changes with CAISO day-ahead 15-minute and hourly inter-tie bidding options.
733	The settlement validation system shall be able to validate the charge code changes related to ancillary service procurement if the day-ahead ancillary service buy-back becomes effective. The functional areas shall include but not limited to: 1. Real-time ancillary service settlement; 2. Ancillary service bid cost recovery; 3. Ancillary service No Pay; 4. Elimination of ancillary service self provision.

734	The system shall be able to allow submission of ancillary service bids in real-time to buy back day-ahead awarded ancillary service if the day-ahead ancillary service buy-back becomes effective. It shall also build in the business logic to determine the appropriate bidding strategy to support real-time ancillary service bidding. The functional areas shall include but not limited to, 1. Real-time ancillary service bids to buy back day-ahead awards; 2. Elimination of ancillary service self provision.
736	The system shall be able to retrieve/download (by XML JSON or CSV) and store the new categories or formats for expected energy, expected energy allocation and commitment cost data from the CMRI reports.
737	The system shall be able to validate the charge code changes related to the HASP reversal rule when comparing 15min DAM to FMM (instead of hourly DAM to FMM).
738	System will have the ability to retrieve and display for review Day-ahead activity following the publication by CAISO (e.g. awards and prices). This shall include the new imbalance reserve product.
739	System shall automatically determine after-the-fact if any CAISO Day-ahead market results are inconsistent with client submitted data. In the case of inconsistency, System will notify the user of the non-conformity.

5. EIM Merchant System Deal Capture Requirements

ID	Requirement Description
1017	LADWP currently uses WebTrader for Deal Capture and the solution must integrate with webTrader or the ER Database to bring in bilateral energy deals and CAISO Day-Ahead and Hourly intertie market deals. Vendor is requested to provide price and scope information on its standard
	electricity Deal Capture offering, including a design overview, information on best practice data structure, information on common / best practice user interfaces, information on common / best practice APIs (e.g. to third party tagging or settlement applications). A response which indicates that using only vendor modules for tagging or settlements and not having 3rd party APIs is optimal is not responsive to this request.
	Additionally, vendor is requested to provide information on standard
	implementation timelines and estimated costs for the proposed solution.

Section Four – Statement of Work Attachment A EIM Merchant Settlement System

1018a	The Deal Capture System shall record, at minimum, the following pieces of information: 1. Unique Record Numbers for each deal 2. Start Date / End Date of Deal 3. Product being sold / traded (energy / capacity/ wheel, etc.) 4. Counterparty of transaction 5. Contract Name and reference to the contract 6. Zone / Trading Location 7. Market where the transaction transpired 8. Denote whether it is a Sale or a Purchase 9. Hours of Sale or purchase 10. Total MWh sold, and profile 11. Total Revenue from transaction 12. Prices and calculations of prices (index, index * 2, etc.) 13. Link to client's eTagging software vendor
1018b	The Deal Capture System shall be capable of linking eTags generated through the client's eTagging software vendor to the deals created in the Deal Capture System.
1018c	The Deal Capture System shall have the ability ot generate invoices / invoice totals on a daily, weekly, or monthly basis per counterparty.
1018d	The client shall have the ability to generate customizable reports in the deal capture system.
1018e	The Deal Capture System shall be capable of exporting data in its displays to .xls, .xlsx, and/or .csv file formats

End of Attachment A

NOTE: The below grids are excerpts from a master list of EIM System Functional Requirements. These are internal ID references and are maintained for LADWP purposes. For each system proposal, the requirement IDs numbering will not be necessarily useful to the Contractor beyond their uniqueness. Non-sequential lists are not a mistake.

1. EIM Entity Settlements and Transmission Billing System Functional Requirements

ID	Requirement Description
130	Contractor shall ensure the system allocates customer charges pursuant to LADWP's tariff or other custom allocations available for configuration by LADWP to allocate charges to Grandfathered GF, Joint Owned Transmission (JOT), etc, which is expected to be updated on TBD.
131	System shall automatically allocate EIM Entity Generator Imbalance Energy charges to customers (e.g., imbalance from LADWP merchant non-participating generation).
132	System shall automatically allocate EIM Entity Intertie Imbalance Energy charges to customers (e.g., imbalance associated with tags from a 3rd party load customer).
133	The system shall automatically allocate EIM Load Imbalance Energy (e.g., ELAP_LADWP_LOAD) charges to customers (e.g., imbalance from 3rd party customer loads).
134	System shall automatically retrieve the latest meter data from the CAISO MRI-S for all EIM resources (generator, interchange, and load). System shall also capture the user/system and time stamp of the retrieval.
135	System shall automatically store all data that involved in Contractor system processes that is needed to reconcile EIM Entity Settlements at least once daily. System shall also capture the user/system and time stamp of the retrieval. Data retention periods shall be determined during design.
136	Contractor shall configure default accounts in CONTRACTOR system from LADWP system. The full mapping of accounts shall be determined in the design phase.
137	In the display of changes to aggregated hourly interchange schedules after the tariff-defined cutoff, system shall default the view of adjusted schedules in order of receipt and enable custom filtering and sorting of available fields.
138	System shall automatically retrieve and allow on-demand retrieval from the CAISO ADS for data needed to reconcile EIM Entity Settlements. System shall also capture the user/system and time stamp of the retrieval.
139	System shall automatically retrieve retrieval and allow on-demand retrieval from the CAISO CMRI for data needed to reconcile EIM Entity Settlements. System shall also capture the user/system and time stamp of the retrieval.

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140	System shall automatically retrieve and allow on-demand retrieval from the EMS/PI or other LADWP system data needed to reconcile EIM Entity Settlements. System shall also capture the user/system and time stamp of the retrieval.
142	System shall automatically retrieve and allow on-demand retrieval from the CAISO MRI-S data (including meter data) needed to reconcile EIM Settlement Statements. System shall also capture the user/system and time stamp of the retrieval.
143	System shall automatically retrieve and allow on-demand retrieval from the LADWP energy accounting system data needed to reconcile EIM Entity Settlements.
144	System shall automatically retrieve and allow on-demand retrieval from the CAISO OASIS data needed to reconcile EIM Entity Settlements. System shall also capture the user/system and time stamp of the retrieval.
145	System shall provide the capability to generate, as needed, daily EIM Settlement allocations by customer for each Settlements Cycle (T+3B, T+12B, T+55B, etc.) that shall include a minimum the following details: customer, resource, operating date, interval, hour, volume, price, amount, and other related determinants used to calculate the amount.
146	System shall provide the capability to generate a Data Validation Report from an identified data mismatch (e.g., internal interchange data not matching CMRI). The report shall be used to upload as an attachment to a Customer Inquiry, Dispute & Information (CIDI) inquiry ticket. The report shall at minimum include: • Date/market/interval the mismatch occurs (e.g., 10/1/2017, RTD, Interval 9) • Data that is mismatched • LADWP source data used in the validation • CAISO source data used in validation. Where possible required CIDI information shall be auto populated, this shall be discussed during design.
147	System shall provide the capability to generate a Settlement Dispute Report from an identified Shadow Settlements mismatch. The report shall be used to upload as an attachment to a CIDI dispute ticket. The report shall at minimum include: • Date/market/interval the mismatch occurs (e.g., 10/1/2017, RTD, Interval 9) • Dollar amount of mismatch • Charge code impacted; • Underlying determinant mismatched; • LADWP source data used in shadow calculation • CAISO source data used in shadow calculation. Where possible required CIDI information shall be auto populated, this shall be discussed during design.

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148	System shall provide the capability to generate, as needed, weekly EIM Settlement Invoices by customer. Invoices are following the same cycle as the statement and as such, they shall be at the statement cycles timing. Invoice selection is based upon user selection of customers to receive invoices.
149	System shall provide the capability to generate, as needed, weekly EIM Settlement allocations by customer.
150	System shall provide the capability to identify the root contributor(s) to Data Validation mismatches (e.g., by drilling down from the highest-level mismatch).
151	System shall provide the capability to identify the root contributor(s) to Shadow Settlement mismatches (e.g., by drilling down from the highest level mismatch).
152	System shall maintain alignment between customer accounts in LADWP list and system. This export/import step shall be automated. A warning message shall be shown when there are new customers from LADWP system that are not in CONTRACTOR System during push.
153	System shall provide the capability to automatically, or by running a report, perform full Shadow Settlement, using LADWP-sourced data whenever possible, for all EIM Entity Settlements charge codes. Users shall be able to identify mismatches while looking at a display or report.
155	System shall record hourly generation base schedules. If imbalance correction occurs, the updated value shall be the base schedule.
156	Record hourly interchange base schedule, four RTPD intervals, 12 RTD intervals and final tag value.
157	System shall automatically record hourly interchange base schedules.
158	System shall automatically record 5-minute, real-time interchange submissions to IFM/RTM.
159	System shall automatically record the load forecast retrieved from BSAP at T-40. This is the forecast used in the final, binding sufficiency test.
160	System shall automatically record the load forecast retrieved from BSAP at T-55. This is the forecast used in the second advisory sufficiency test.
161	System shall automatically record the load forecast retrieved from BSAP at T-75. This is the forecast used in the initial advisory sufficiency test.
162	System shall automatically record the value of individual tagged schedules contributing to a rolled up base schedule (e.g., tags aggregated for a "Mirror" schedule).
163	System shall automatically record the value of individual tagged schedules contributing to rolled-up, 5-minute, real-time interchange submissions (e.g., tags aggregated for a "Mirror" schedule).
164	The system shall automatically retrieve resource characteristics for all resources from the Master File for seven forward days, maintaining effective dating. These characteristics shall include: SCID; Resource ID; Configuration ID (for MSG); Pmin; Pmax; and Ramp rates.

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165	System shall automatically retrieve and store all data from the CAISO CMRI that is needed to reconcile EIM Entity Settlements at least once daily. System shall also capture the user/system and time stamp of the retrieval.
166	System shall automatically retrieve daily EIM Entity Settlement Statements and billing determinants from the CAISO MRI-S for each Settlements Cycle (T+3B, T+12B, T+55B, etc.). System shall also capture the user/system and time stamp of the retrieval.
168	System shall automatically retrieve and store all data from LADWP's EMS/PI system that is needed to reconcile EIM Entity Settlements at least once daily. System shall also capture the user/system and time stamp of the retrieval.
169	System shall automatically retrieve RTD generation dispatches from CMRI at least once daily. System shall also capture the user/system and time stamp of the retrieval.
170	System shall automatically retrieve hourly generation base schedules from CMRI at least once daily. System shall also capture the user/system and time stamp of the retrieval.
171	System shall automatically retrieve generation DOTs from ADS at least once daily. System shall also capture the user/system and time stamp of the retrieval.
172	System shall automatically retrieve RTPD generation awards from CMRI every fifteen minutes. System shall also capture the user/system and time stamp of the retrieval.
173	System shall automatically retrieve RTD interchange schedules from CMRI at least once daily. System shall also capture the user/system and time stamp of the retrieval.
174	System shall automatically retrieve hourly interchange base schedules from CMRI at least once daily. System shall also capture the user/system and time stamp of the retrieval.
175	System shall automatically retrieve RTPD interchange schedules from CMRI at least once daily. System shall also capture the user/system and time stamp of the retrieval.
176	System shall automatically retrieve hourly load base schedules from CMRI at least once daily. System shall also capture the user/system and time stamp of the retrieval.
177	System shall automatically retrieve final ATF interchange schedules from CMRI at least once daily and capture the user/system and time stamp of the retrieval.
178	System shall provide on demand capability to retrieve the latest meter data from the CAISO MRI-S for all EIM resources (generator, interchange, and load). System shall also capture the user/system and time stamp of the retrieval.
179	System shall automatically retrieve and store all data from LADWP's Meter Data Management system that is needed to reconcile EIM Entity Settlements at least once daily.

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180	System shall automatically retrieve monthly EIM Entity Settlement Statements and billing determinant from the CAISO MRI-S.
181	System shall automatically retrieve and store all data from the CAISO MRI-S that is needed to reconcile EIM Entity Settlements at least once daily. System shall also capture the user/system and time stamp of the retrieval.
182	The system shall automatically retrieve and store all data from the CAISO OASIS that is needed to reconcile EIM Entity Settlements at least once daily. System shall also capture the user/system and time stamp of the retrieval.
183	System shall enable on-demand retrieval of resource characteristics for all resources from the Master File for seven forward days. System shall also capture the user/system and time stamp of the retrieval.
184	System shall enable daily retrieval of generation DOTs from ADS. System shall also capture the user/system and time stamp of the retrieval.
185	System shall enable on-demand retrieval of load base schedules, RTPD forecasts and RTD forecasts from CMRI. System shall also capture the user/system and time stamp of the retrieval.
186	System shall enable on-demand retrieval of generation base schedules, RTPD awards and RTD dispatches from CMRI. System shall also capture the user/system and time stamp of the retrieval.
187	System shall enable on-demand retrieval of interchange base schedules, RTPD awards, RTD dispatches and final interchange from CMRI. System shall also capture the user/system and time stamp of the retrieval.
188	System shall automatically retrieve binding RTD prices (all LADWP ELAP, LAPs, and LMPs) from OASIS at least once daily. System shall also capture the user/system and time stamp of the retrieval.
189	System shall include Tie Generators in all retrievals of market schedules (base schedule, RTPD, RTD and ATF).
190	System shall automatically retrieve binding RTPD prices (all LADWP ELAP, LAPs, and LMPs) from OASIS at least once daily. System shall also capture the user/system and time stamp of the retrieval.
191	System shall automatically retrieve weekly EIM Entity Settlement Invoices from the CAISO MRI-S.
192	System shall provide the capability to automatically, or by running a report, perform Shadow Settlements using primary determinants (i.e. LADWP data), for verification of all EIM Entity Settlements charge codes' accuracy. Users shall be able to identify mismatches while looking at a display or report
193	System shall automatically update RTPD and RTD price data after T+5B price correction is published.
194	System shall enable on-demand update of RTPD and RTD prices from CAISO OASIS. System shall also capture the user/system and time stamp of the retrieval.

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195	System shall provide the capability to automatically, or by running a report, validate that internally captured ATF interchange schedules match CMRI. ATF interchange schedules shall match the final tag-based schedule submitted. Users shall be able to identify mismatches while looking at a display or report.
196	System shall provide the capability to automatically, or by running a report, validate that internally captured hourly generation base schedules match CMRI. Users shall be able to identify mismatches while looking at a display or report.
197	System shall provide the capability to automatically, or by running a report, validate that internally captured hourly interchange base schedules match CMRI. Users shall be able to identify mismatches while looking at a display or report.
198	System shall provide the capability to automatically, or by running a report, validate that internally calculated hourly load base schedule matches CMRI. Users shall be able to identify mismatches while looking at a display or report.
199	System shall provide the capability to automatically, or by running a report, validate that internally captured data (i.e., what was submitted) matches MRI-S. Users shall be able to identify mismatches while looking at a display or report.
200	System shall provide the capability to automatically, or by running a report, validate that price data from OASIS is reasonable and complete. Users shall be able to identify gaps in data and price spikes while looking at a display or report.
201	System shall provide the capability to automatically, or by running a report, validate that internally captured RTD interchange schedules match CMRI. RTD interchange schedules shall match base schedules unless tags were create/adjusted after the tariff cutoff and ahead of the respective RTD market run (T-7.5, T-2.5, T+2.5 for RTD intervals 1, 2, 3, respectively) Users shall be able to identify mismatches while looking at a display or report.
202	System shall provide the capability to automatically, or by running a report, validate that internally captured RTPD interchange schedules match CMRI. RTPD interchange schedules shall match base schedules unless tags were create/adjusted after the tariff cutoff and ahead of the respective RTPD market run (T-37.5, T-22.5, T-7.5, and T+7.5 for RTPD intervals 1, 2, 3 and 4, respectively) Users shall be able to identify mismatches while looking at a display or report.
203	Counter factual calculation shall be provided by the system. System shall generate a report that sums the allocated portion of the LADWP Merchant Settlements. This shall support the counterfactual: • Entity Settlement System • Merchant Settlement System • Post Analysis. Detail and data associated with the counterfactual calculation shall be determined in design.

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204.1	EIM Entity Settlements UI shall include an audit log which provides visibility into key changes to data (e.g. when Interchange Schedules have been submitted). The audit log shall include timestamps, user IDs, data IDs and other similar meta data to allow review and analysis of key changes. The audit log UI functionality is not intended to capture every data level change (e.g. every change in a Interchange Schedule Profile).
204.2	EIM Entity Settlements UI shall include an IT log that captures information related to key processes such as the status of jobs, workflows, interfaces, etc. The IT log shall include timestamps, job names, statuses and other similar meta data to support troubleshooting. The IT log UI functionality is not intended to capture every data level change (e.g. it need not display what values were received when an interface succeeded).
204.3	System shall have the ability to view OASIS data with a GUI.
632	Contractor to provide lump sum bids for ongoing support/customization work and incorporate as options in the fixed bid e.g. 3 months, 6 months, 9 months support.
791	 System shall support calculation of: LADWP ELAP load Total of discretely metered or "triangulated" 3rd party LSE load LADWP Native load (the difference between 1 & 2)
798	 LADWP requires the capability be included in the settlement system to validate accuracy of market data and dispatches. Examples include but are not limited to the following: Display data graphically of base schedules, dispatches, LMPs, meter data, outages, deviations, start-up and shut downs by downloading the data from CAISO systems Have a drill down data capability from weekly to daily down to 5-minute data An ability to perform validation of dispatches against Master File parameters and be able to perform ad-hoc analysis of CAISO dispatches. Validation capability against user programmable parameters such as ramp rate violations deviations across an input time period etc. Contractor shall also provide optionality to customize screens to run what if scenarios by changing a parameter and re-running a historical day
799	Contractor shall automate the download of ALL CAISO data by using APIs to download: bids and offers, market awards, dispatch instructions, LMP prices, meter data, outage data, forecasts, settlement statements and supporting settlement files, and invoices. System shall also automatically import data on configurable timelines by calendar days and business days. Downloads shall be manually initiated on demand by certain users and downloaded data shall be exportable in CSV or excel format and viewable in pivot tables

938	System shall have capability to submit all EIM meter data and perform calculations to determine load, gross versus net generation and adjust for losses
942	System shall provide the user the ability to view a monthly summary of dollars (by day) of energy, congestion, losses, operating reserves for DA and RT. System shall provide the user the ability to view a monthly summary of dollars (by day) of energy, congestion, losses, operating reserves for DA and RT. System shall provide user a summary/trend of various charge code information.

2. EIM Entity Settlements and Transmission Billing System RC Services Requirements

ID	Requirement Description
776	ISO RC Services shall require the submission of Net Energy for Load MWh by Zone for BAAs that are not generation only. The system shall provide an API for the retrieval of Load MWh by Zone which is anticipated to be similar to the existing EIM Meter Data retrieval API from MRI-S. Includes all API functionality: • Ability to schedule jobs • Ability to manually trigger, status, error handling, audit trail, etc.
777	ISO RC Services are anticipated to be settled using the same charge code and statement framework as market settlements but with a new RC Services BD File and Settlement Statement Files. The system shall support an API for retrieval of the RC Services BD, Settlement Statement and other associated files similar to energy market settlements and process the data so it can be displayed and reviewed by a user. (PD)
778	ISO RC Services are anticipated to be settled using the same charge code and statement framework as market settlements but with a new RC Services charge codes. The system shall provide a UI or set of UIs for displaying all statement, charge code and bill determinants for RC Services settlements comparable to the framework used for EIM settlements. Includes all UI functionality logical data display with all required meta data, filtering / sorting on any field, read/write, permissions management, etc. (PD)
779	ISO RC Services charges are not anticipated to be disputable except for clerical error. However, differences may arise due to calculation of Net Energy for Load MWhs. The system shall provide shadow settlement calculations comparable to the framework for EIM shadow settlements. Complexity is anticipated to be similar to the GMC charge codes, with an annual rate multiplied by the Net Energy for Load MWh and possibly a static minimum charge. Specific calculations and data sources shall be defined during design. (PD)

780	ISO RC Services are anticipated to be invoiced using the same framework as market invoicing but with a new RC Services Invoice File. The system shall support an API for retrieval of the RC Services Invoice File and other associated files similar to EIM Invoicing and process the data so it can be displayed and reviewed by a user. (PD)
781	ISO RC Services are anticipated to be invoiced using the same invoicing framework as market invoicing. The system shall provide a UI or set of UIs for displaying all invoice information comparable to the framework used for EIM invoicing and comparing the invoiced values to the statement values. Includes all UI functionality logical data display with all required meta data, filtering / sorting on any field, read/write, permissions management, etc. (PD)
782	ISO RC Services are anticipated to be settled with the BAA. LADWP may allocate charges to embedded customers or TOPs or calculate the cost allocation which would apply for accounting and tracking purposes. The system shall support the calculation of allocated RC charges. The specific formula shall be defined during the design phase but is anticipated to be similar in complexity to allocation based on Measured Demand by Zone. Calculation can be triggered by another process, a schedule job or manually. Audit trail is required. (TBD)
783	The system shall provide a UI or set of UIs to allow a user to review the allocated RC Services charges comparable to the framework used for EIM Transmission Billing. Includes all UI functionality logical data display with all required meta data, filtering/sorting on any field, read/write, permissions management, etc. (TBD)
784	The system shall provide RC Services allocation statements and Billing Determinants to LADWP customers comparable to the framework used for EIM Transmission Billing. (TBD)
785	The system shall provide RC Services allocation invoices to LADWP customers comparable to the framework used for EIM Transmission Billing. (TBD)

3. EIM Entity Settlements and Transmission Billing System DAME Impacts to EIM Requirements

ID	Requirement Description
714	When the settlement validation system record changes to all base schedules, it shall record at 15-minute interval.
	When it retrieves the base schedules form CMRI, it shall be able to retrieve the data in 15-minute interval as well.
715	When the settlement validation system record the load forecasts and sufficiency/balance/flexible ramping test results, it shall record on 15-minute interval.

716	The settlement validation regarding base schedules shall be changed to 4 15-minute interval using the same validation logic applicable to hourly except the logic stated below. All UI and reports in this area shall be changed to display on 15-minute interval. Business logic change: Since the sufficiency/balance/flexible ramping tests apply to 15-minute interval individually and one interval failure does not fail the whole hour, the relevant settlement validation logic shall be changed.
717	The settlement validation system module in bid cost recovery area shall be able to validate the changes in expected energy calculation, expected energy allocation and commitment cost determination for EIM resources.
719	The settlement validation system shall be able to validate the charge code changes related to 15-minute under and over scheduling charge for EIM entity; It shall also be able to validate the charge code changes related to accounting for regulation energy as instructed imbalance energy instead of uninstructed imbalance energy (for non-participating resources); It shall also be able to validate the relevant charge code changes for cost allocation to EIM entities.

4. EIM Entity Settlements and Transmission Billing System eDAM Requirements

ID	Requirement Description
741	The settlement validation system shall be able to validate the charge code changes related to cost allocation changes in the day-ahead market enhancement. The functional areas shall include but not limited to, 1. Changes due to the merging of IFM and RUC - Two tier cost allocation; 2. Changes due to the day-ahead imbalance reserve product.

The settlement validation system shall be able to validate all existing charges and their changes related to the additional load serving entity and transmission provider settlement related to a new joint BAA if/when LADWP joins in the full market as part of the extended day-ahead market (eDAM) initiative. LADWP will be seen as an additional load serving entity (LSE) and participating transmission provider (PTO) in the full market. This would include the settlement charge codes for all the LSEs and PTOs in both day-ahead and real-time. (Essentially, similar to the settlement rules for Pacific Gas Electric or Southern California Edison.) The functional areas shall include but not limited to:

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- Day-ahead and real-time load settlement in other BAAs;
- 2. Day-ahead energy and ancillary service settlement for non-participating resources which are self-schedule energy or ancillary service into the full market:
- 3. Day-ahead and real-time transmission access charge in other BAAs;
- 4. Day-ahead Congestion settlement in other BAAs;
- 5. Day-ahead and Real-time financial rights for transmission contracts in other BAAs:
- 6. Day-ahead and real-time reserve, energy, bid cost allocation charges;
- 7. Various new penalties.

END OF ATTACHMENT B

NOTE: The below grids are excerpts from a master list of EIM System Technical Requirements. These are internal ID references and are maintained for LADWP purposes. For each system proposal, the requirement IDs numbering will not be necessarily useful to the Contractor beyond their uniqueness. Non-sequential lists are not a mistake.

E. TECHNICAL REQUIREMENTS (APPLIES TO BOTH SYSTEMS)

ID	Requirement Description
38.01	LADWP shall have full ownership and access to all data stored in the system database. There shall be no restrictions to LADWP accessing, exporting or replicating the data. The system shall facilitate LADWP's ability to replicate the entire system database in a LADWP-provided data warehouse.
83	The system shall alert the user if a submission to ISO is rejected. Alerts for individual tasks shall be configurable for user Roles.
94	The system UI shall include an IT log that captures information related to key processes such as the status of jobs, workflows, interfaces, etc. The IT log shall include timestamps, user names, job names, statuses and other similar meta data to support troubleshooting.
321	Software shall be designed and sized for rapid response for system or users' actions, without objectionable latency or processing time.
322	Contractor shall provide a list of the all screens available to LADWP in a design or similar document. Each screenshot shall be accompanied by at least 3 sentences for describing: the purpose, intent and expected user audience of each screen.
324	System Availability shall be maintained at least 99.5%.
326	Contractor shall provide instructions for successfully setting up any server software in a redundant configuration in order to minimize unplanned outages and single points of failure. Critical functions must have single points of failure eliminated. Contractor shall define critical functions to be reviewed and approved by LADWP.
329	Contractor shall provide documentation on any areas of the System's performance that shall degrade as the number of concurrent client or server machine processes increases. Documentation shall include number of supported concurrent processes supported on a given hardware configuration, for any concurrent process limited function for the System.
330	Contractor shall provide documentation on any areas of the System's performance that shall degrade as the number of concurrent report generation increases. Documentation shall include number of supported concurrent report creation supported on a given hardware configuration, for any concurrent report limited functions for the System.

331	Contractor shall deliver software optimized to provide necessary performance. Contractor shall take actions to prevent and minimize any performance degradation, such as: optimize queries, create indexing, automatically manage table sizes and other similar techniques. Contractor shall note any limiting conditions to allow software to meet CAISO market timeframe needs.
332	Contractor shall document what anticipated / typical / incremental volumetric changes shall require additional LADWP expenditure with growth in use of the System. Examples are: User Licenses, Training Sessions, and Scaling Aspects (such as System Sizing).
335	Contractor shall assist LADWP ID staff to conduct initial system configuration of the System (via remote tools or in person). Contractor shall update installation manual to reflect any LADWP specific steps identified during this initial installation.
338	Contractor shall provide licensing and support to enable LADWP to run Software in all internal computing environments it chooses including Production (ex: Parallel Ops), Test (ex: Market SIM, DITL and Connectivity CAISO Testing), and Dev (ex: any internal Development) supporting users including staff, contractors and partner's staff.
339	Contractor shall provide tools and configuration options to support internal testing as well as external (with CAISO including Parallel Operations). Contractor shall provide configuration options so that LADWP staff may change an interface endpoint (i.e. source from CAISO Prod to Test or LADWP Development). System shall provide a tool to prime from clean database as well as functionality duplicate input data from one LADWP environment to another (i.e. Production to Test). Contractor shall also tools or APIs to allow users to query the replicated data for each of the environments to ensure completeness and timing.
340	Contractor shall provide at least read-only access to backend data via DB tool, API or custom tools shall be provided for all LADWP environments (ex: Dev, Test, Prod) so that data can be exported for reporting or system integration.
341	Any user displays shall be set to the locally configurable time zone. System shall automatically manage daylight savings time display changes so that at all time displays show the correct local (or other user selected) time zone preference.
343	System shall support updating data via API or other machine interfaces at a rate defined by configuration variable in the event of push. Configuration shall allow setting of seconds, minutes, hours or days for any periodic interface. In the case of either push or pull all System interfaces shall support defined data rate. If an interface does not have a specification in this document it shall be assumed to update one time per minute. Data types and rates shall be taken from a previous implementation and scaled based on a sizing factor (defined in the response to this item)
344	Monitoring solution shall be able to monitor status of all interfaces of the system and provide copies of logs to LADWP log aggregation solutions.

349	System shall provide user the ability to create reports from standard reports that shall cover the majority of business cases for report needs. In addition, System shall have the ability to generate ad hoc reports with the he ability to custom sort by fields as exported to Excel, XML, JSON or CSV
350	System shall support copy and paste capability within user interfaces. Table data when copied and pasted in to a spreadsheet or similar application shall retain layout across multiple cells. Any exceptions shall be documented by Contractor.
352	System shall have the ability of allowing filtering and sorting on table data on in the user interface(s)
357	The Contractor shall include in proposal resources to support LADWP with System failover / disaster recovery such that LADWP can validate that all systems failover correctly using LADWP environment.
358	Contractor shall note anywhere the system does not include effective dating (when a value is valid, "from" and "to" timestamp) in underlying datastore including configuration settings.
359	The Contractor shall provide a patch management and update process to LADWP for all installed operating systems, applications, and third-party software. The Contractor shall perform the required testing prior to release and provide the patches to LADWP only after they have been fully tested and certified by the Contractor.
360	Contractor shall utilize a formal and documented quality assurance program managed by the Contractor and be followed throughout the project as well as after contracted support timeframe. LADWP shall be notified of any material breach of quality assurance process with respect to System.
363	Contractor shall provide a documented test plan for base product as well as any custom LADWP work with the delivery of each release of Software. The Test Plan shall account for test results, testing timelines, and Contractor resources used.

363.5	Contractor shall provide all Test Scripts to test functionality of application that LADWP shall be able to duplicate to ensure proper functionality of the application. Test cases shall be comprehensive and include the following as appropriate: • Test ID • Test title or function to be tested • A description/purpose of the test • Reference(s) and description of SOW requirements addressed • The test setup and/or initial conditions for the test • Description of the techniques, scenarios, and tools to be used to simulate system field inputs and controlled equipment If appropriate • Step-by-step descriptions to perform the test, including the anticipated input and user action(s) for each individual test step • Expected results for each test step or segment, including pass/fail criteria. • Area for the recording actual results of each step and the test as a whole.
365	Contractor shall support all LADWP documented testing phases to enter the CAISO Western EIM market including: (Interconnectivity, DITL, Market Sim, Parallel Operations). This includes support of both environments connected to CAISO as well as lower test and environments' data and interfaces that interact with Contractor's System.
367	LADWP shall have the option to perform a regression test (with Contractor assistance) prior to the end of each formal test phase. The Contractor shall assist in a timely manner in these tests as requested by LADWP.
369	User Acceptance Test: testing shall, at a minimum, include the following individual test phases (further details about each part of testing is defined further down): • Functional Test • Performance Test • Failover/Disaster Recovery Testing • Unstructured Test • Security, Vulnerability, and Penetration Tests User Acceptance Testing shall conclude with an End to End Testing cycle performed by LADWP users to confirm the all key functional workflows and system integrations are working as expected. LADWP shall have the option of skipping or combining testing phases.
371	Contractor shall have rigorous software variance handling procedures. It shall include process definition explaining when variances are discovered (by Contractor or LADWP), Contractor shall take actions to classify the severity and impact of variance and take and track through delivery of software fix or other solution. Variances shall be tracked, target dates established and agreed to by LADWP prior to closing. Procedures shall further document how variances shall be fully tested before releasing any patch.

LADWP shall be able to use variance tracking tool to produce reports of all variances or of specific variances (e.g., by function, by date, etc.). The record of each variance shall include (but not be limited to) the following information:

- The date of the discovery of the variance
- A unique identification
- A brief variance description

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- Variance type (e.g., Problem, Enhancement Request, Training, Request for Information, Other)
- A detailed description of the variance along with recreation steps
- Tester identification
- Resource Assigned to correct variance
- A description of the resolution
- A record of all testing performed
- Identification of LADWP staff confirming the resolution and the date of acceptance

Contractor shall support a variance tracking lifecycle that is functionally equivalent to the following:

Variance Category

- Open (variance recorded)
- Request for Enhancement (requested modification which has not been approved)
- Accepted (confirmation of variance)
- Assigned (i.e., assigned for resolution)
- Waiting Customer Response (additional information required to resolve)
- Ready for Test (problem resolved, ready for retest)
- Canceled (problem determined to be invalid or duplicate)
- Closed (i.e., LADWP has verified and has accepted the resolution)

Variance severity

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- Critical An issue which prevents performance of a key business function, no suitable workaround exists and immediate resolution is required. A variance that inhibits the use of a feature essential to the System or a variance that forces formal testing (e.g., Installation) to be cancelled.
- High An issue which prevents performance of an important business function that either doesn't have an immediate impact or for which a workaround can be used temporarily. Denotes the failure to perform a required feature in a manner that significantly reduces the System efficient performance and/or feature or a variance that delays further testing of the System or feature.
- Minor Denotes the failure of the System to perform a required feature in a manner that reduces the utility of the system or feature. Minor severity variances shall not delay any testing.

	LADWP shall have the right to review, approve, and change the severity
377	assigned to any variances recorded during testing and at any time throughout
	the project and support period.
380	Contractor shall document their data retention ability with the planned LADWP configuration. Example: • Data amount (tiers) in Prod, and the associated effects. • Duration of record retention (how long back), and associated effects. • How long it takes to retrieve from, and how to access, archive data?
	Contractor shall provide a detailed interface specification. The interface specification and design document(s) shall describe in detail the interfaces between the software solution and LADWP-provided systems and networks. The interface requirements document shall be used by both the Contractor and LADWP as the definition of the interface between the software solution and all other systems, so that each system can be designed or modified to meet its requirements. LADWP shall provide all required information to the Contractor so that it can prepare the document accordingly. The interface specification document shall cover the following aspects (but not
	be limited to):
	Description of the interface.
382	 Description of the communication protocols, including the lower level network protocols, the upper level session, presentation, and application protocols, and the options and parameters selected. Description of the database access methods and capabilities, including specific displays, commands, and access and authorization requirements. Description of relevant database models, structures, and contents for these databases.
	 Data exchange requirements including timing, priority, volume, and security requirements. A specific list of data to be exchanged during factory and site testing shall also be included.
	Description of the performance requirements.
	 Description of software required to execute this interface such as DLLs or other drivers that may or may not be unique for this interface.

388	 Contractor shall produce detailed design documentation for each module and proposed module which shall include, at least the following items: Program abstract. General technical description of the module. The module logic (the use of pseudo code or structured English is preferred). External interfaces to the program including applicable calling sequences. Initialization considerations. Identification of any databases referenced or modified. A high level flowchart or program design language to enhance the technical description of the module. Error codes and error handling processes.
404	The Contractor shall schedule and attend periodic progress review meetings as required during the implementation of the System. Progress meetings shall be used to review the progress report, action items, and technical issue review. The responsibility for the development of meeting agendas and minutes shall be the Contractor's and shall be provided to LADWP for approval at a minimum of 2 business day(s) prior to the scheduled meeting.
405	All project documentation, such as, correspondence, memos, meeting minutes, and monthly progress reports, shall be produced and provided to LADWP.
410	Contractor responsible for remaining current and compliant at Contractor cost with all CAISO specifications, functionality and EIM market developments. These include CAISO's 15-minute market changes that impact EIM, such as 15-minute instead of hourly base scheduling. Contractor shall update application and associated documentation to support all or enhancements for the CAISO Western EIM Market including all interfaces and functionality for the duration of software maintenance agreement.
413	Contractor shall provide documented warranty including a statement to the effect that correction of a system failure or wrong answer shall not be considered an upgrade / change of scope / cost share or other event requiring additional payment from LADWP. This includes but limited to the following system failure types: • Connectivity to the CAISO market due to updated web services • Ability to submit or download due to updated resource configuration • Ability to download and parse data due to updated settlement configuration
522	Results of troubleshooting system problems shall be feedback to LADWP as soon as possible usually within 24 hours but never later than 90 days after the issue has been discovered. In the event troubleshooting is going to take longer than 24 hours LADWP shall be notified by the Contractor.
658	Software shall employ role-based security or other comparable security construct.

676	Systems exchanging data with CAISO shall support updated interface data and version and store the original data as well as the updated data in underlying data store. Each software patch received from Contractor requiring underlying data store reconfiguration shall update all existing data to conform to new format. If data is to be communicated with the ISO the System shall conform to the published CAISO standards for interface use. This may include deleting old data from CAISO and repopulating with full set upon single element change.
677	Contractor shall provide LADWP Test Plan showing any required LADWP resources needed. Contractor shall also provide examples of test scripts, testing checklist, and testing records as available to demonstrate the existing quality assurance process in place for Contractor development. This shall include all testing phases (such as Factory Acceptance Testing (FAT), Site Acceptance Testing (SAT) and User Acceptance Testing (UAT)). If there are phased deliveries from the Contractor, the test plan shall reflect how they impact, or are accounted for in the testing phases.
678	Contractor shall support testing at least at the following levels FAT, SAT and UAT as generally accepted in Energy Management System (EMS) testing. LADWP shall have the option of skipping or combining testing levels.
795	Clearly identify a data recovery plan.
812	The Contractor shall provide user accounts with configurable access and permissions associated with one or more organizationally defined user role(s), where roles are used.
824	The Contractor shall not permit user credentials to be transmitted or shared in clear text. The Contractor shall not store user credentials in clear text unless the Contractor and LADWP agree that this is an acceptable practice for the procured product given the protection offered by other security controls. The Contractor shall only allow access protocols that encrypt or securely transmit login credentials (e.g., tunneling through Secure Shell Terminal Emulation [SSH], Transport Layer Security [TLS]). If possible, the Contractor shall utilized centralized account management, such as an LDAP-based solution.
843	The Contractor shall provide a list of all log management capabilities that the procured product is capable of generating and the format of those logs. This list shall identify which of those logs are enabled by default.
844	The Contractor shall recommend guidance on the design and configuration of network security zones within the procured product, including data flows.
852	The Contractor shall verify that the procured products allow use of unique routable network address spaces (i.e., address spaces other than 192.168.0.0/16, 172.16.0.0/12, and 10.0.0.0/8 must be supported), in coordination with LADWP Network Engineering, that work within LADWP's network. Where this is not available, the Contractor shall offer an alternative approach, with mitigating security measures, that is acceptable to LADWP.
853	The Contractor, working with LADWP approval, shall provide or utilize an existing security-isolated environment outside the control network (e.g., using a demilitarized zone [DMZ] or an equivalent or a superior form of security isolation) for the communications tunneling services to reside in.

	The Contractor shall provide a secure process for users to submit problem
879	reports and remediation requests. This process shall include tracking history
	and corrective action status reporting.
880	Upon LADWP submitting a problem report to the Contractor, the Contractor
	shall review the report, develop an initial action plan within 24 hours, and
	provide status reports of the problem resolution to LADWP within 7 days
898	Logs from this system shall be copied to LADWP-log aggregation services.
	LADWP shall have full ownership and access to all data stored in the system
933	database.
	System shall capture the user/system and time stamp of all submissions and
941	the retrievals
	Maintain an accurate and up-to-date inventory of all technology assets with the
1024	potential to store or process information. This inventory shall include all
1024	hardware assets, whether connected to the organization's network or not.
	Maintain an accurate up-to-date Network architecture diagram that incorporates
1025	accurate data flows.
1026	Maintain and provide LADWP up-to-date Hardware inventory list.
1020	Ensure that the hardware asset inventory records the network address,
	hardware address, machine name, data asset owner, and department for each
1027	asset and whether the hardware asset has been approved to connect to the
	network.
	Ensure that unauthorized assets are either removed from the network,
1028	quarantined or the inventory is updated in a timely manner.
	Utilize port level access control, following 802.1x standards, to control which
	devices can authenticate to the network. The authentication system shall be
1029	tied into the hardware asset inventory data to ensure only authorized devices
	can connect to the network.
	Ensure that all users with administrative account access use a dedicated or
1030	secondary account for elevated activities. This account shall only be used for
1030	administrative activities and not internet browsing, email, or similar activities.
	Where multi-factor authentication is not supported (such as local administrator,
1031	root, or service accounts), accounts shall use passwords that are unique to that
1031	system.
	Use multi-factor authentication and encrypted channels for all administrative
1032	account access.
	Maintain documented, standard security configuration standards for all
1033	authorized operating systems and software.
	Maintain secure images or templates for all systems in the enterprise based on
460 (the organizations approved configuration standards. Any new system
1034	deployment or existing system that becomes compromised shall be imaged
	using one of those images or templates.
	Store the master images and templates on securely configured servers,
1035	validated with integrity monitoring tools, to ensure that only authorized changes
	to the images are possible.
	1

1036	Deploy system configuration management tools that shall automatically enforce
	and redeploy configuration settings to systems at regularly scheduled intervals.
1037	Ensure that local logging has been enabled on all systems and networking
	devices.
1038	Enable system logging to include detailed information such as a event source,
	date, user, timestamp, source addresses, destination addresses, and other
	useful elements.
	Ensure that all systems that store logs have adequate storage space for the
1039	logs generated to ensure full detail is retained for x days (x to be a number of
	days mutually agreeable to Vendor and LADWP).
	Ensure that appropriate logs are being aggregated to a central log
1040	management system for analysis and review.
	Share Security Information and Event Management (SIEM) logs with analytic
1041	
4040	tool for log correlation and analysis.
1042	On a regular basis, review logs to identify anomalies or abnormal events.
4-6-	On a regular basis, Contractor shall update Security Information and Event
1043	Management (SIEM) log analytic tools for log correlation and analysis, to better
	identify actionable events and decrease event noise.
	Subscribe to URL categorization services to ensure that they are up-to-date
1044	with the most recent website category definitions available. Uncategorized sites
	shall be blocked by default.
	Log all URL requests from each of the organization's systems, whether onsite
1045	or a mobile device, in order to identify potentially malicious activity and assist
	incident handlers with identifying potentially compromised systems.
1046	Use DNS filtering services to help block access to known malicious domains.
	Enable Domain Name System (DNS) query logging to detect hostname lookups
1047	for known malicious domains.
	Enable command-line audit logging for command shells, such as Microsoft
1048	Powershell and Bash.
	Associate active ports, services and protocols to the hardware assets in the
1049	asset inventory.
	Ensure that only network ports, protocols, and services listening on a system
1050	
	with validated business needs, are running on each system.
1051	Place firewalls in front of any critical servers to verify and validate the traffic
	going to the server. Any unauthorized traffic shall be blocked and logged.
1052	Maintain standard, documented security configuration standards for all
	authorized network devices.
	All configuration rules that allow traffic to flow through network devices shall be
1053	documented in a configuration management system with a specific business
.555	reason for each rule, a specific individual's name responsible for that business
	need, and an expected duration of the need.
	Compare all network device configuration against approved security
1054	configurations defined for each network device in use and alert when any
	deviations are discovered.

1055	Install the latest stable version of any security-related updates on all network devices.
1056	Manage all network devices using multi-factor authentication and encrypted sessions.
1057	Ensure network engineers use a dedicated machine for all administrative tasks or tasks requiring elevated access. This machine shall be segmented from the organization's primary network and not be allowed Internet access. This machine shall not be used for reading e-mail, composing documents, or surfing the Internet.
1058	Manage the network infrastructure across network connections that are separated from the business use of that network, relying on separate VLANs or, preferably, on entirely different physical connectivity for management sessions for network devices.
1059	Maintain an up-to-date inventory of all of the organization's network boundaries.
1060	Perform regular scans from outside each trusted network boundary to detect any unauthorized connections which are accessible across the boundary.
1061	Deny communications with known malicious or unused Internet IP addresses and limit access only to trusted and necessary IP address ranges at each of the organization's network boundaries.
1062	Deny communication over unauthorized TCP or UDP ports or application traffic to ensure that only authorized protocols are allowed to cross the network boundary in or out of the network at each of the organization's network boundaries.
1063	Configure monitoring systems to record network packets passing through the boundary at each of the organization's network boundaries.
1064	Deploy network-based Intrusion Detection Systems (IDS) sensors to look for unusual attack mechanisms and detect compromise of these systems at each of the organization's network boundaries.
1065	Deploy network-based Intrusion Prevention Systems (IPS) to block malicious network traffic at each of the organization's network boundaries.
1066	Enable the collection of NetFlow and logging data on all network boundary devices.
1067	Ensure that all network traffic to or from the Internet passes through an authenticated application layer proxy that is configured to filter unauthorized connections.
1068	Decrypt all encrypted network traffic at the boundary proxy prior to analyzing the content. However, the organization may use whitelists of allowed sites that can be accessed through the proxy without decrypting the traffic.
1069	Require all remote login access to the organization's network to encrypt data in transit and use multi-factor authentication.
1070	Scan all enterprise devices remotely logging into the organization's network prior to accessing the network to ensure that each of the organization's security policies has been enforced in the same manner as local network devices.

1071	Segment the network based on the label or classification level of the information stored on the servers, locate all sensitive information on separated Virtual Local Area Networks (VLANs), and separated by Firewall
1072	Enable firewall filtering between VLANs to ensure that only authorized systems are able to communicate with other systems necessary to fulfill their specific responsibilities.
1073	Disable all workstation to workstation communication to limit an attacker's ability to move laterally and compromise neighboring systems, through technologies such as Private VLANs or micro-segmentation.
1074	Encrypt all sensitive information in transit.
1075	Utilize an active discovery tool to identify all sensitive information stored, processed, or transmitted by the organization's technology systems, including those located onsite or at a remote service provider and update the organization's sensitive information inventory.
1076	Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls shall enforce the principle that only authorized individuals shall have access to the information based on their need to access the information as a part of their responsibilities.
1077	The Contractor shall identify where the data centers are located. All data centers shall reside within the United States.
1078	Use an automated tool, such as host-based Data Loss Prevention, to enforce access controls to data even when data is copied off a system.
1079	Encrypt all sensitive information at rest using a tool that requires a secondary authentication mechanism not integrated into the operating system, in order to access the information. Ensure sensitive information is also encrypted in transit
1080	Enforce detailed audit logging for access to sensitive data or changes to sensitive data (utilizing tools such as FiC57:G58le Integrity Monitoring or Security Information and Event Monitoring).

END OF ATTACHMENT C

Section Four – Statement of Work Attachment D CLOUD HOSTED REQUIREMENTS

NOTE: The below grids are excerpts from a master list of EIM System Hosted Requirements. These are internal ID references and are maintained for LADWP purposes. For the system, the requirement IDs numbering will not be necessarily useful to the Contractor beyond their uniqueness. Non-sequential lists are not a mistake.

D. CLOUD HOSTED REQUIREMENTS (<u>The following requirements do not apply to</u> an on premise System)

ID	Requirements Description
333	The cloud hosted system shall have the ability to increase/decrease storage needs as required and be able to expand/contract system hardware to meet future demands.
346	For technical security, the Contractor shall implement the necessary communications security protocols including firewalls, antivirus software, and encryption. Contractor shall ensure all communication and access is both authenticated and authorized. Communication for administrative tasks shall be secured using VPN. For data security, Secure Sockets Layer (SSL) shall be used as standard and unsecured HTML shall be used on an exception basis only. Contractor shall whitelist LADWP's source address.
411	Contractor shall keep LADWP's application and modules within 1 version of the most current version used by any other Contractor client, unless a variance is requested by LADWP.
679	LADWP shall have the right to audit processes, procedures and data centers on an annual basis to ensure compliance with security and architecture requirements. Contractor may substitute this requirement by providing audit documentation from a mutually agreed to 3rd party with mutually agreed to audit parameters.
680	Contractor shall not claim ownership rights of any data sourced from LADWP staff, contractors or systems. In addition, Contractor shall not claim ownership of any 3rd party data (including from CAISO) gained through interfaces set up for LADWP or using LADWP credentials.
681	Contractor shall support a process for LADWP to receive backup of data retained on hosted System on a periodic basis. Backup shall be in a format readable by LADWP in such a way as to be able to extract and use data in data analytics or to replace Contractor product with another system without data reentry.
682	Contractor shall notify, consult and receive approval from LADWP before implementing any change to System that materially impacts required bandwidth into or out of LADWP facilities or hosted facility.
683	Contractor shall provide the optionality to migrate any hosted system to an on- premise system and explain the process of any changes needed to migrate the hosted system to an on-premise system.

Section Four – Statement of Work Attachment D CLOUD HOSTED REQUIREMENTS

684	Contractor shall provide LADWP access to any performance monitoring or system status tools used by Contractor to monitor hosted environment
686	Contractor shall offer suitable data backup in case of emergency, corruption and other forms of data loss.
687	Contractor shall provide a scalable hosting platform to ensure that LADWP has the system capabilities it needs at all times. Preferred hosting Contractor shall provide solution that is flexible in terms of storage, functionality, system expansion, system retraction and price based on business need
689	Contractor shall offer strong transitioning support, doing everything possible to ensure that LADWP transition to a cloud-based platform is smooth and painless.
690	Contractor shall support transfer of data in the event that release version of software requires underlying data modifications to ensure no information is lost or outage time is taken due to data issues.
691	Contractor shall actively monitor bandwidth usage and report any abnormal spikes or drops in usage. Contractor shall provide a monthly summary of usage by LADWP.
793	Contractor shall clearly identify where the cloud system itself is physically-located. The cloud system shall be guaranteed to be in the United States.
794	Contractor shall clearly identify whether the System is multi-tenancy or sole service.
903	Contractor shall provide description of physical security implemented within data center.

END OF SECTION FOUR

SECTION FIVE DRAFT AGREEMENT



INFORMATION TECHNOLOGY PRODUCTS & SERVICES

Agreement No. XXXXX

Company Name: [Enter Consultant Name]

Subject: Energy Imbalance Market Merchant Settlement and

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EXHIBITS

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Invoice Criteria Prior Work Product

Agreement for

Information Technology Products & Services

This Agreement for Information Technology Products & Services ("Agreement	") , is
entered into this day of, 20_ by and between the Los Ang	eles
Department of Water and Power (the "LADWP"), acting by and through the Boar	d of
Water and Power Commissioners (Board), and [Contractor Name], a [S	tate]
[corporation/limited liability company/partnership/sole proprietorship/other] w	ith a
principal place of business at ("Contractor").	

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. Definitions

Capitalized terms used in this Agreement shall have the following meanings:

- a) "Authorized Subcontractor" shall mean a subcontractor or service provider of Contractor who has been approved by the LADWP beforehand and in writing to carry out any part of Contractor's obligations under this Agreement.
- "Background Technology" shall b) have the meaning assigned to it in Subsection 17(b) ("Background Technology and Inventions").
- "Board" shall mean Board of c) Water and Power Commissioners.
- d) "Change Order" shall have the meaning assigned to it in Section 3 ("Change Order Process").
- "Confidential Information" shall have the meaning assigned to it in Subsection 18(a) ("Protection").
- "Contract Administrator" shall f) mean the LADWP's representative who has been identified as such from time to time by the LADWP, and who shall have authority to act for the LADWP under this

Agreement.

- "Contractor's Quality Assurance g) Program" shall mean that program, if any, described as such in Exhibit M ("Contractor's Quality Assurance Program").
- "Deliverables" shall mean h) collectively all items provided or to be provided by Contractor hereunder, including without limitation all Hardware, Software and Services.
- i) "LADWP Work Product" shall have the meaning assigned to it in Subsection 17(a) ("Disclosure of Work Product").
- "Developed Software" shall mean Software, in both Object Code and Source Code formats, which is not Existing Software, and which is identified as such in a Statement of Work.
- "Disclosing Party" shall have the k) meaning assigned to it in Subsection 18(a) ("Protection").
- "Documentation" shall mean all information reasonably necessary or desirable, or as described in a Statement

of Work, to be provided to Contractor by the LADWP which describes the form, features or operation of the Deliverables and which is contained in a tangible medium, such as written format, tape, magnetic or other media, and including without limitation all Updates of Documentation and Documentation which the LADWP may require at any time.

- m) "Effective Date" shall mean the first date upon which all of the following shall have occurred: (a) this Agreement has been signed by the LADWP by the person authorized by the LADWP to sign on its behalf and also signed by the Contractor's authorized representative; (b) this Agreement has been approved by the City's Council or by the Board, or by the City's or the Board's officer or employee authorized to give such approval; and (c) the Office of the City Attorney has indicated in writing its approval of this Agreement as to form and legality.
- **n)** "Error" shall mean any material failure of any Deliverable to conform with its Specifications.
- **o)** "Escrow Agent" shall have the meaning assigned to it in Subsection 18(f) ("Escrow").
- **p)** "Escrow Agreement" shall mean a written agreement in substantially the form and format as described in Exhibit L ("Escrow Agreement").
- **q)** "Escrow Materials" shall have the meaning assigned to it in Subsection 18(f) ("Escrow").
- r) "Existing Software" shall mean that Software, in Object Code format (but subject to Subsection 18(f) ("Escrow"), which exists as of the Effective Date, and

which is identified as such in a Statement of Work, and including Documentation and Updates.

- s) "Fees" shall mean those amounts to be paid to Contractor hereunder, and which are described as such in Exhibit C ("Fee Schedule").
- t) "Force Majeure" shall have the meaning assigned to it in Section 11 ("Force Majeure").
- u) "Hardware" shall mean any and all hardware, machines, devices, computers, or similar equipment described as such in a Statement of Work, including without limitation all associated supplies, materials and spare parts.
- v) "Hardware Maintenance" shall have the meaning assigned to it in Subsection 20(a) ("Hardware Maintenance").
- w) "Indemnified Parties" shall have the meaning assigned to it in Section 19 ("Intellectual Property and Deliverables Indemnity").
- x) "Invention" shall mean any and all trade secrets, inventions, mask works, ideas, processes, formulae, Source Codes, Object Codes, data, programs, other works of authorship, know-how, improvements, discoveries, developments, designs and techniques existing as of the Effective Date or coming into existence thereafter.
- y) "Invoice" shall have the meaning assigned to it in Subsection 12 (c) ("Invoices").
- **z)** "Job Cost Report" shall mean detailed, written or electronic records of the Contractor which describe fully

Contractor's costs in its performance under this Agreement, and including all periodic and cumulative amounts to date of revenue, costs, gross profit and billing information against bid projected costs, and sub-accounts for the different types of all cost categories.

- **aa)** "*Maintenance*" shall mean: (i) Hardware Maintenance; and (ii) Software Maintenance.
- **bb)** "Object Code" shall mean computer software programs, not readily perceivable by humans, and which are suitable for machine execution without the intervening steps of interpretation or compilation.
- **cc)** "Prior Work Product" shall have the meaning assigned to it in Subsection 17(a) ("Disclosure of Work Product").
- dd) "Project Plan" shall mean that portion of the Statement of Work specifying the Deliverables and the Schedule (including without limitation all start and end dates for all Tasks).
- **ee)** "Proprietary Rights" shall have the meaning assigned to it in Subsection 17(c) ("Assignment and License").
- **ff)** "Receiving Party" shall have the meaning assigned to it in Subsection 18(a) ("Protection").
- **gg)** "Technical Response" shall mean Contractor's written response to the RFP in Exhibit O ("Technical Response").
- **hh)** "RFP" shall mean the LADWP's "Request for Proposal", number 90478.
- ii) "Schedule" shall mean the schedule of Deliverables, dates and Fees

described as such in a Statement of Work.

- **"Services"** shall mean collectively, the Tasks described in each Statement of Work.
- **kk)** "Shrink-Wrap Agreement" shall mean any form of license or other agreement included with any Deliverables hereunder, and including without limitation any embedded "click-wrap" license agreement, or any license agreement which is presented under shrink-wrap or other plastic coverings the removal of which may be deemed to effect agreement with the terms of such license agreement.
- **II)** "Software" shall mean collectively: (i) Existing Software; and (ii) Developed Software, and in all cases including all Documentation.
- mm) "Software Maintenance" shall have the meaning assigned to it in Subsection 20(b) ("Software Maintenance").
- nn) "Source Code" shall mean computer software programs not in machine readable format and which is not suitable for machine execution without the intervening steps of interpretation or compilation.
- oo) "Specifications" shall mean collectively all operational, functional or other specifications with respect to any Deliverables, including without limitation all Documentation and those specifications described as such in the Statement of Work and the Technical Response.

- pp) "Statement of Work" shall mean the description of the work to be carried out by Contractor, the Deliverables to be provided by Contractor, and the Schedule to be met by Contractor, as described in Exhibit H ("Statement of Work").
- **qq)** "Task Assignment" shall mean a written description of work activity provided by the LADWP describing work to be carried out by Contractor, and consisting of at least one (1) Task and an associated Fee.
- **rr)** "Tasks" shall mean the smallest units of work activity described under each Statement of Work.
- modification of or addition to the Software or Documentation, including without limitation all new releases, versions, subversions, corrections, "patches" and maintenance releases, which Contractor may prepare, obtain, or have prepared at any time.
- **tt)** "Viruses" shall have the meaning assigned to it in Subsection 21(d) ("Viruses").
- **uu)** "Work Product" shall have the meaning assigned to it in Section 17 ("Rights in Work Product and Licenses").

2. Deliverables

a) Services

Contractor shall perform Services, strictly in accordance with each Statement of Work.

b) Hardware

Contractor shall prepare and deliver to the LADWP all Hardware, strictly in

accordance with each Statement of Work.

c) Software

(i) Existing Software -

Contractor shall provide Existing Software according to the Statement of Work, but in no event later than the delivery of any Developed Software with which such Existing Software is to be integrated pursuant to such Statement of Work.

(ii) Developed Software -Contractor shall prepare and deliver to the LADWP all Developed Software, strictly in accordance with each Schedule.

d) Documentation

Contractor shall prepare and deliver to the LADWP all Documentation, strictly in accordance with each Schedule.

Authorized Subcontractors e) With prior approval of the LADWP, the Contractor may enter into contracts and agreements with Authorized Subcontractors for the performance of portions of this Agreement. The Contractor shall at all times be responsible for the acts, errors or omissions of its Authorized Subcontractors and persons directly or indirectly employed by them. Nothing in this Agreement shall constitute any contractual relationship between any others and the LADWP or any obligation on the part of the LADWP to pay, or to be responsible for the payment of, any sums to any Authorized Subcontractors or any other third party. No such Authorized Subcontractor shall be a third party beneficiary of this Agreement. Upon written request from the Contract Administrator, the Contractor shall promptly supply the LADWP with all subcontractor agreements.

f) Site Visits by Contractor

All visits by Contractor to the LADWP's facilities must have prior approval by the Contract Administrator. Visiting Contractor representatives must carry LADWP-issued identification badges, and conform to such security, safety and other requirements as the LADWP may from time to time impose.

3. Change Order Process

a) Process

Unless expressly agreed to otherwise in a Statement of Work, the Specifications, the Schedule and the Fees, and shall not be changed without the prior, written consent of the LADWP. Provided, however, that in the event that the LADWP wishes to change the Specifications or the Schedule, then the LADWP shall so notify the Contractor in writing, describing the changes to be made. The Contractor shall respond to such notification promptly in writing (and in no event later than ten (10) days thereafter) describing any increase in Fees which the Contractor seeks with respect to such changes. If thereafter agreed to by the parties, the parties shall record their agreement with respect to such changes, and increase in Fees (if any) in a written change order ("Change Order"), to be signed by the parties, and which will amend this Agreement. Invoices for Fees pursuant to Change Orders will be identified and issued separately from other Invoices.

b) No Obligation

EXCEPT AS PROVIDED IN THIS
SECTION 3 ("CHANGE ORDER
PROCESS"), THE LADWP SHALL HAVE
NO OBLIGATION TO PAY, AND SHALL
NOT PAY, ANY INCREASE IN FEES
REGARDLESS OF ANY ADDITIONAL
WORK CARRIED OUT UNDER THIS
AGREEMENT BEYOND THAT WHICH IS

EXPRESSLY DESCRIBED IN EACH STATEMENT OF WORK.

4. Packing and Shipment

a) Packing

Contractor agrees to pack all Deliverables to be shipped hereunder in suitable containers for protection in shipment and storage, and in accordance with applicable Specifications. Each container of a multiple container shipment shall be identified so as to:

- (i) Conspicuously show the number of the container and the total number of containers in the shipment; and
- (ii) Conspicuously show the number of the container in which the packing sheet has been enclosed; and
- (iii) Conspicuously show such other information as the LADWP may from time to time require.

b) Packing Sheets

All shipments of Deliverables by Contractor or its Authorized Subcontractors must include written packing sheets identifying: the Agreement number, the purchase order, item number; quantity and unit of measure; part number and description of the Deliverables shipped; and appropriate evidence of inspection, if required by the LADWP. Only Deliverables under this Agreement shall be listed on any particular packing sheet, and items under any other contracts between the LADWP and Contractor shall not be included thereon.

5. Delivery

Contractor shall strictly adhere to the Schedule specified in this Agreement. Time shall be of the essence of Contractor's performance under this Agreement. Time, if stated as a number of days, shall mean calendar days unless otherwise specified. The quantities of

Deliverables specified herein are the only quantities required. If Contractor delivers in excess of the quantities of Deliverables specified herein, the LADWP shall not be required to make any payment for the excess Deliverables, and may at the LADWP's discretion dispose of such excess Deliverables, return such excess Deliverables to Contractor at Contractor's expense and risk, or make such excess Deliverables available for pick-up by Contractor.

6. Substitutions and Quality

a) Substitutions

Substitution of any other goods or services for Deliverables called for in any Statement of Work may not be tendered without the prior, written consent of the Contract Administrator. Contractor shall not use any specification in lieu of the Specifications contained in each Statement of Work without the prior, written consent of the LADWP.

b) Quality

The Contractor's work shall reflect competent professional knowledge, judgment, and accepted industry practice. Subject to Section 13 ("Term and Termination"), the Contractor shall promptly correct, or remedy any work, errors, or omissions, at its sole expense, which do not conform to the provisions of this Agreement.

c) Drawing Quality

Drawings provided for in any Statement of Work shall belong solely to the LADWP, and shall conform to the best standards of the drafting profession. Information in all such drawings shall be organized in a logical, systematic manner, shall be legible and clear, and shall fully conform with such Statement of Work.

d) Professional Licensure and Certification

If so provided in the RFP, drawings shall be signed and sealed by professional engineers and architects with appropriate legal registration. To the extent that professional certification is required given the scope of work, said certification shall be provided with Technical Response.

7. Delivery, Inspection, Acceptance and Rejection

a) Delivery

Contractor shall deliver all Deliverables according to the Schedule to such addresses as may be from time to time specified by the LADWP.

b) Inspection

The LADWP shall have a reasonable period, in no event less than thirty (30) days, commencing with the date of delivery of each shipment of Deliverables to inspect and test such Deliverables to ensure that such Deliverables fully conform to this Agreement, fully conform to their Specifications, fully conform to their Documentation, and fully comply with all representations and statements made by Contractor with respect thereto (including, without limitation, any corresponding Technical Response). Contractor shall fully cooperate and assist the LADWP in the course of such inspection and delivery at no cost to the LADWP. In the event of any failure of such Deliverables to so fully comply with any of the foregoing (each such condition to be considered an "Error"), the LADWP may, at its discretion and upon notice, reject any or all such Deliverables. In such case. Contractor shall within forty-eight (48) hours of such notice remove all such Deliverables from the LADWP's premises

(at Contractor's sole expense), and replace such Deliverables with conforming Deliverables promptly (and in no event later than five (5) business days thereafter).

Acceptance and Rejection c) Upon the completion of the inspection and testing described in Subsection 7(b) ("Inspection"), the LADWP shall inform Contractor of whether the corresponding Deliverables are accepted by the LADWP. Any failure of the LADWP to provide such notice within sixty (60) days of delivery shall be deemed a rejection thereof. The Contractor shall remove all rejected Deliverables promptly, and in no event later than five (5) days after such rejection. The LADWP shall be free to dispose of any Deliverables which are not so removed. Acceptance of Deliverables shall not be construed to waive any warranty rights that the LADWP might have at law or by this Agreement.

d) Quality Program

If so provided in Exhibit M ("Contractor's Quality Assurance Program"), Contractor and its Authorized Subcontractors will provide and maintain such Contractor's Quality Assurance Program throughout the Term of this Agreement. Contractor will keep records evidencing related quality inspections and their result, and will make such records available to the LADWP upon request throughout the Term and for three (3) years thereafter. Contractor shall permit the LADWP to review procedures, practices, processes, and related documents to determine the acceptability of Contractor's Quality Assurance Program or other similar business practices related to performance of this Agreement.

e) Facilities

Contractor and its Authorized Subcontractors shall provide all reasonable facilities for the safety and convenience of the LADWP's inspectors at no additional cost to the LADWP. Contractor shall furnish to the LADWP and its agents all information and data as may be reasonably required to perform their inspection.

8. Samples

Contractor shall promptly provide to the LADWP upon reasonable request from time to time, and without cost, samples of Deliverables for inspection and testing. Such samples must be identical in all respects to the Deliverables specified in each corresponding Statement of Work. Such samples, if not destroyed by tests, may, upon request made at the time the sample is furnished, be returned to Contractor at Contractor's risk and expense.

9. Safety and Accident Prevention

The LADWP agrees to provide a suitable and safe environment at its facilities with respect to Services to be provided under this Agreement. The parties understand and agree that Contractor has not included in its charges any expense for dealing with or removing potentially hazardous substances, such as asbestos, unless otherwise expressly provided by a Statement of Work. If not so provided in such Statement of Work, the LADWP shall be responsible for handling such substances at its own cost. In performing work under this Agreement, Contractor shall conform to all specific safety requirements contained in the Agreement and as required by law or regulation. Contractor shall take any additional precautions as the LADWP may reasonably require for safety and accident prevention purposes, and shall at all times exercise reasonable and prudent judgment with respect thereto. Any violation of such requirements, laws or regulations shall be considered a material breach of this Agreement.

10. Personnel

a) Information

The LADWP shall provide reasonably necessary representatives with authority to act on the LADWP's behalf with respect to approvals, requests, and meeting scheduling.

b) Capacity

Contractor warrants that the size of the staff employed by the Contractor in its performance hereunder shall be reasonably adequate in number and quality at all times to perform the work required by this Agreement and to add such addition personnel as are necessary to accomplish any work required by any Change Order.

c) Identification

The Contractor shall furnish the LADWP from time to time upon request the names, titles, and qualifications of its key project personnel and subcontractors, including without limitation individual resumes, and the tasks to be performed by such individuals. Upon receipt of such request, the Contractor shall respond within two (2) business days.

d) Approval

The Contract Administrator shall have the right to interview and approve all personnel of Contractor and Authorized Subcontractors. Resumes of individual personnel will be reviewed and approved by the LADWP's Contract Administrator before the individual shall be assigned

work. The Contractor shall minimize changes to any Contractor personnel with respect to any Statement of Work. Any unreasonable assignment or discharge of such personnel may, at the LADWP's option, be deemed a material breach of this Agreement by Contractor. The LADWP shall have the right to request key personnel changes and to review and approve key personnel changes proposed by the Contractor. No change can be made without LADWP approval. The LADWP shall have the right to require removal of any personnel with or without cause, which removal shall be effected no later than seventy-two (72) hours, or in the case of any removal requested for security or work rule reasons, immediately.

e) Control

The Contractor's and the Authorized Subcontractors' personnel shall at all times remain under the control of the Contractor.

11. Force Majeure

If either party is unable to perform its obligations because of strikes, lockouts, labor disputes, embargos, acts of God, governmental regulations, judicial orders, enemy or hostile governmental action beyond the reasonable control of the Contractor or its Authorized Subcontractors ("Force Majeure"), then such party shall immediately notify the other party in writing, and such party's performance shall be suspended for the period equal to the period time of such cause for suspension of performance.

12. Fees, Invoices and Payment

a) Fees

The LADWP shall pay the Fees described in Exhibit C ("Fee Schedule") which have

been accepted by the LADWP. Any Fees shall not increase for at least one (1) year after the effective date of the Agreement, unless expressly agreed to otherwise by the LADWP. Unless expressly stated in a Exhibit C ("Fee Schedule'), all salaries, wages, or other payments (including without limitation any overtime) to any third parties, Authorized Subcontractors or employees, shall be the sole responsibility of the Contractor, and the Contractor hereby agrees to fully indemnify, defend and hold harmless the LADWP with respect thereto.

b) Travel and Costs

Travel time of the Contractor's personnel shall not be charged to, or paid by, the LADWP unless specifically provided for in the Technical Response and the Statement of Work. Any allowable travel shall be consistent with Exhibit D ("Allowable Travel Expenses").

c) Invoices

Upon the LADWP's acceptance of each shipment of Deliverables (including without limitation acceptance of completed Services), the LADWP shall so notify Contractor, and Contractor shall issue a written invoice ("Invoice") to the LADWP with respect thereto. Each such Invoice shall meet all the invoice criteria described in Exhibit P ("Invoice Criteria"), and shall contain the contract/purchase order number, the Contractor code number, the City of Los Angeles Business Tax Registration Certificate Number, and the identification of material, equipment and/or services covered by the Invoices. In all cases the amount of applicable sales tax or use tax shall be separately stated on the Invoice. All Invoices shall be accompanied by such written documentation as the LADWP may reasonably require in order to support the

amount and calculation of all corresponding Fees. Invoices for Services shall be issued monthly for all Services provided during the immediately preceding month.

d) Payment

Such Invoices, if correct, will be certified, and paid within thirty (30) days after receipt of Invoice. Invoice payments will not be made if the Invoice is received more than six (6) months after acceptance of corresponding Deliverables. No such Invoice shall be certified for payment, or paid, unless and until it shall first conform with Subsection 12(c) ("Invoices") above. In the event of any dispute of any Fees under any Invoices, the LADWP agrees to make payment of all undisputed amounts as hereinabove provided.

e) Tax Registration Certificate
Refer to Exhibit A ("General Conditions"),
Section GC-12.

f) Taxpayer Identification Number ("TIN")

Refer to Exhibit A ("General Conditions") Section GC-20.

g) Third Party Claims

The Contractor shall promptly pay, when due, all amounts payable for labor and materials furnished in the performance of this Agreement so as to prevent any lien or other claim under any provision of law from arising against any LADWP property (including reports, documents, and other tangible matter or Deliverables produced hereunder), against the Contractor's rights to payments hereunder, or against the City, and shall pay all amounts due under the Unemployment Insurance Act with respect to such labor.

h) Most Favored Customer

Contractor hereby covenants and warrants that throughout the Term of this Agreement, the Fees payable hereunder shall be no higher than the prices charged by Contractor to its other customers for like goods and services. Contractor shall notify the LADWP immediately of any offer to any other customer of more favorable prices as hereinabove described, and the Fees payable by the LADWP hereunder shall thereupon be deemed reduced to an equivalent level. The LADWP shall have the right, upon reasonable notice, to review the books and records of Contractor to confirm that Contractor has complied with the requirements of this Subsection 12(h) ("Most Favored Customer").

13. Term and Termination

a) Term

The term of this Agreement ("Term") shall commence upon the Effective Date and shall expire three (3) years thereafter, unless earlier terminated as hereinafter provided.

b) Termination without Cause

This Agreement may be terminated by the LADWP, without cause, upon written notice. Upon receipt of such notice, the Contractor shall immediately stop all work under this Agreement. The Contractor shall be entitled to payment of Fees for all Deliverables completed, including without limitation Services provided (in both cases where accepted by the LADWP), until the date of such notice, and also to reimbursement for reasonable and documented re-stocking charges imposed on Contractor by third party suppliers due to such termination, where such charges have been called to the LADWP's attention beforehand and in writing. The

Contractor shall then deliver to the LADWP, in an organized and usable form, all Deliverables "work in process" as of such date.

Termination for Material Breach c) Either party may terminate this Agreement upon notice, in whole or in part, for the material breach of this Agreement by the other party (including without limitation, in the case of Contractor, any such breach by Contractor's Authorized Subcontractors) which has remained uncured for a period of ten (10) days from the date of notice thereof to the breaching party. Without limiting the generality of the foregoing: (i) any late payment of Fees by the LADWP shall not, in itself, be deemed a material breach of this Agreement; and (ii) any failure of Contractor to timely perform Services or deliver other Deliverables according to any Schedule and this Agreement, shall be deemed a material breach hereof, and in such case the LADWP shall also have the right to reject all such Deliverables. In the case of such late performance or delivery by Contractor, the LADWP may, in addition to any rights and remedies the LADWP may also have, require Contractor, at Contractor's expense, to ship any Deliverables via air freight or by other expedited routing means (at no cost to the LADWP) to avoid or minimize actual or potential delay. Also, in the event the Agreement is terminated in accordance with this Subsection 13(c) ("Termination for Material Breach"), the LADWP may also take possession of all Deliverables in process and of all materials, tools, equipment, and property of the Contractor, which have been provided in connection with the work, and may complete the work by whatever method or means the LADWP may select. The cost of completing the work shall be deducted

from the balance which would have been due the Contractor had the Agreement not been terminated and the work completed in accordance with the Agreement.

d) Disqualification

In the event Contractor receives one (1) or more notices of material breach as described in Subsection 13(c) ("Termination for Material Breach"), whether such material breaches are cured or not, the LADWP may consider such material breaches in making any subsequent determination of responsibility with respect to future awards.

e) **Remedies Not Exclusive**

Any election by the LADWP to seek any remedy under this Section 13 ("Term and Termination"), including without limitation any right to reject Deliverables or to require expedited shipping, shall not limit any other rights or remedies which the LADWP may have with respect to any breach of this Agreement.

Right of Offset

The LADWP reserves the right to offset any and all costs and damages suffered by the LADWP under this Agreement against any outstanding invoices or amounts otherwise owed to the Contractor or to make a claim against the Contractor therefor.

g) Suspension of Work

The Contract Administrator may orally direct the Contractor to suspend, and to subsequently resume performance of all or any part of the work. Such direction shall be confirmed in writing. An equitable adjustment in the work completion schedule and corresponding Fees (if fixed price) shall be negotiated and confirmed by a Change Order or a revision to a task assignment if such suspension impacts

the cost of the work and/or work completion schedule. The LADWP shall pay the Fees due for the suspended work up to the effective date of suspension notice and shall resume Fee payments effective as of the work resumption date.

h) **Errors and Omissions**

The Contractor will be responsible for correcting or remedying any errors or omissions which occur in performance of the services under this Agreement and which are the result of the Contractor's negligence, action or omission, regardless of whether the foregoing are a material breach hereof or not. The cost of correcting or remedying any such error or omission shall be borne by the Contractor. Revising Contractor-prepared documents at the request of the LADWP to incorporate comments by the public or by agencies having jurisdiction in matters of the particular task assignment is not considered to be a remedy of errors or omissions, but is considered an integral part of document preparation which may be called for by a Task Assignment.

14. Taxes

Unless otherwise required by law, the LADWP is exempt from Federal excise taxes. The LADWP will only pay for any State or local sales or use taxes on the Services rendered or other Deliverables supplied to the LADWP pursuant to this Agreement.

15. **Newly Manufactured** Deliverables

All Deliverables furnished under this Agreement shall contain only newly manufactured items. Used or reconditioned Deliverables are prohibited, unless otherwise expressly agreed to by the LADWP in a corresponding Statement of Work.

16. **Records and Audit**

Records and Audits a)

Incorporated by Reference. See Exhibit T ("Right to Audit").

b) **Progress Reports**

The Contractor shall, as required by the Contract Administrator from time to time. submit reports summarizing all the Tasks under this Agreement, the work accomplished, work left to be done, work to be done in the coming months, and the estimated completion dates including without limitation any deviations or reasonably likely deviations from the Schedule. Each such report shall be organized by Task and shall include the Task number, Task coordinator, Task title, the authorized Fee, the start date and completion date, and the total of Fees received to date by the Contractor. Such report shall also show the total Fees received by the Contractor under this Agreement.

Right to Review

The LADWP reserves the right to review any portion of the Services performed by the Contractor under this Agreement, and the Contractor agrees to cooperate to the fullest extent. Contractor shall furnish to the LADWP such reports, statistical data, and other information pertaining to the Contractor's Services as shall be reasonably required by the LADWP. The right of the LADWP to conduct such review shall not relieve the Contractor of any obligation set forth herein.

17. Rights in Work Product and Licenses

Disclosure of Work Product For purposes of this Agreement, "Work Product" shall mean any Invention

whether or not patentable, and all related know-how, designs, mask works, trademarks, formulae, processes, manufacturing techniques, trade secrets, ideas, artwork, Developed Software (including without limitation any website or other works). Contractor shall disclose promptly in writing to the LADWP, or any person designated by the LADWP, all Work Product which is solely or jointly conceived, made, reduced to practice, or learned by Contractor in the course of any work performed hereunder ("LADWP Work Product"). Contractor hereby represents and warrants that any Work Product relating to the LADWP's business or any Project which Contractor has made, conceived, learned or reduced to practice prior to the Effective Date of this Agreement ("Prior Work Product") has been disclosed in writing to the LADWP and attached to this Agreement as Exhibit Q ("Prior Work Product"). If disclosure of any such Prior Work Product would cause Contractor to violate any prior confidentiality agreement, Contractor shall not list such Prior Work Product, but shall instead disclose a cursory, nonconfidential name for each such item, a listing of the party(ies) to whom it belongs. and the fact that full disclosure as to such Prior Work Product has not been made for that reason. Contractor agrees that any and all Inventions made, learned, derived, conceived, written, created or first reduced to practice in the performance of work under this Agreement shall be the sole and exclusive property of the LADWP.

Background Technology and b) Inventions

Contractor shall specifically describe and identify in Exhibit N ("Background Technology") all existing technology which Contractor intends to use in the course of

its performance hereunder ("Background Technology").

c) **Assignment and License** Except for Contractor's rights in Background Technology, Contractor hereby irrevocably assigns to the LADWP all right, title and interest worldwide in and to LADWP Work Product and all applicable intellectual property rights related to LADWP Work Product including without limitation all copyrights, mask work rights, trademarks, service marks, trade secrets, patents (including applications, continuations, continuations in part, and utility models), moral rights, and contract and licensing rights, however and wherever arising (collectively, the "Proprietary Rights"). Except as set forth below, Contractor retains no right to use the LADWP Work Product and agrees not to challenge the validity of the LADWP's ownership of the LADWP Work Product. Contractor hereby grants to the LADWP a nonexclusive, fully transferable, perpetual, paid up, royalty-free, irrevocable, worldwide license, with rights to sublicense through multiple tiers of subLADWPs, to reproduce, make derivative works of, publicly perform, and publicly display in any form or medium, whether now known or later developed, digitally perform, distribute, make, have made, use, lease, offer for sale, import and sell Background Technology and any Prior Work Product incorporated or used in the LADWP Work Product for the purpose of developing and marketing LADWP products, and carrying on the LADWP's business.

d) Waiver or Assignment of Rights
If Contractor has any rights to the LADWP
Work Product which cannot be assigned
to the LADWP, Contractor unconditionally
and irrevocably waives the enforcement of

such rights, and all claims and causes of action of any kind against the LADWP with respect to such rights, and agrees, at the LADWP's request and expense, to consent to and join in any action to enforce such rights. If Contractor has any right to the LADWP Work Product which cannot be assigned to the LADWP or waived by Contractor, Contractor unconditionally and irrevocably grants to the LADWP during the term of such rights, an exclusive (both as to Contractor and all third parties), fully-transferable, irrevocable, perpetual, worldwide, fully paid and royalty-free license, with rights to sublicense through multiple tiers of subLADWPs, to reproduce, make derivative works of, publicly perform, and publicly display in any form or medium, whether now known or later developed, digitally perform, distribute, make, have made, use, lease, offer for sale, import and sell goods and services under such rights. Contractor hereby waives and quitclaims to the LADWP any and all claims, of any nature whatsoever, which Contractor now has or may hereafter have for infringement of any Proprietary Rights assigned hereunder to the LADWP.

e) Continuing Assurances and Enforcement

Contractor agrees to cooperate with the LADWP or its designee(s), both during and after the Term of this Agreement, in the procurement and maintenance of the LADWP's rights in the LADWP Work Product and to execute, when requested, any other documents deemed necessary by the LADWP to carry out the purpose of this Agreement. Without limiting the generality of the foregoing, Contractor agrees to execute upon the LADWP's request a signed assignment of copyright to the LADWP in a format reasonably required by the LADWP. To the extent the

LADWP is unable to procure Contractor's cooperation in the foregoing, Contractor hereby irrevocably appoints the LADWP as its attorney in fact to take all such actions and to execute such documents. Contractor shall assist the LADWP in every proper way to obtain, and from time to time enforce, United States and foreign Proprietary Rights relating to the LADWP Work Product in any and all countries. To that end Contractor shall execute, verify and deliver such documents and perform such other acts (including appearances as a witness) as the LADWP may reasonably request for use in applying for, obtaining, perfecting, evidencing, sustaining and enforcing such Proprietary Rights and the assignment thereof. In addition, Contractor shall execute, verify and deliver assignments of such Proprietary Rights to the LADWP or its designee. Contractor's obligation to assist the LADWP with respect to Proprietary Rights relating to such the LADWP Work Product in any and all countries shall continue beyond the expiration or termination of this Agreement, but the LADWP shall compensate Contractor at a reasonable rate after such expiration or termination for the time actually spent by Contractor at the LADWP's request on such assistance.

f) Future Development

This Agreement shall not preclude the Contractor from developing materials outside this Agreement that are competitive with, irrespective of their similarity to, Deliverables which are delivered to the LADWP pursuant to this Agreement.

g) Existing Software License Contractor hereby grants to the LADWP a worldwide, perpetual, irrevocable, nonexclusive, royalty-free, paid up, transferable license, including the right to grant sublicenses through multiple tiers, with respect to the Existing Software in order to use, copy, execute, publicly perform, publicly display, digitally perform and create derivative works of the Existing Software.

h) Documentation License

Contractor hereby grants to the LADWP a worldwide, perpetual, irrevocable, non-exclusive, royalty-free, paid up, transferable license, including the right to grant sublicenses through multiple tiers, with respect to the Documentation in order to use, copy, execute, publicly perform, publicly display, digitally perform and create derivative works of the Documentation solely in connection with the Deparment's exercise of its rights under this Agreement.

18. Confidential Information and Source Code Escrow

a) Protection

Each party (the Disclosing Party") may from time to time during the term of this Agreement disclose to the other party (the "Receiving Party") certain non-public information regarding the Disclosing Party's business, including technical, marketing, financial, personnel, planning and other information ("Confidential Information"). The Disclosing Party shall mark all such Confidential Information in tangible form with the legend 'confidential', 'proprietary', or with similar legend. With respect to Confidential Information disclosed orally, the Disclosing Party shall describe such Confidential Information as such in writing within thirty (30) days after the date of oral disclosure. Regardless of whether so marked, however, any non-public information regarding the Developed

Software (in Source Code and Object Code formats), shall be deemed to be the Confidential Information of the LADWP.

b) Protection of Confidential Information

Except as expressly permitted by this Agreement, the Receiving Party shall not disclose the Confidential Information of the Disclosing Party (using the same degree of care which the Receiving Party ordinarily uses with respect to its own proprietary information, but in no event with less than reasonable care). The Receiving Party shall also not use the Confidential Information of the Disclosing Party for any purpose not expressly permitted by this Agreement, and shall limit the disclosure of the Confidential Information of the Disclosing Party to the employees or agents of the Receiving Party who have a need to know such Confidential Information of the Disclosing Party to the employees or agents of the Receiving Party who have a need to know such Confidential Information for purposes of this Agreement, and who are, with respect to the Confidential Information of the Disclosing Party, bound in writing by confidentiality terms no less restrictive than those contained herein. The Receiving Party shall provide copies of such agreements to the Disclosing Party upon request; provided, however, that such agreement copies shall themselves be deemed the Confidential Information of the Receiving Party. Notwithstanding the foregoing, after the expiration or termination of this Agreement and the return by the Receiving Party of the Confidential Information of the Disclosing Party as provided in subsection 18(e) ("Return of Confidential Information"), the Receiving Party shall be free to use internally (but not disclose) any ideas, concepts and

know-how contained in such Confidential Information: (i) which relate to the business of the Receiving Party; and (ii) which have been retained mentally by employees of the Receiving Party through the course of their performance under this Agreement.

c) State Law Requirements -Protection For Personal Information

State law (See S.B. 1386 and A.B. 1950) requires a person or entity that owns or licenses computerized data that includes personal information, of a California resident, to disclose any breach of the data base security system and to implement and maintain procedures and practices to protect personal information from unauthorized access, destruction, use, modification, or disclosure and, shall require by contract, that non-affiliated third party recipients of such personal information, implement and maintain security procedures and practices to protect the personal information. Accordingly, Contractor agrees to implement and maintain such security procedures and practices, in conformance with S.B. 1386 and A.B. 1950, with respect to any personal identification information received under this agreement, as well as notify the City of any breach in security. In addition, Contractor shall not share, disclose, or in any way transfer the personal identification information without the written approval of the LADWP. Contractor shall be responsible for any and all liabilities, including but not limited to those stated below in this paragraph, that result from any violation of S.B. 1386 or A.B. 1950 that Contractor, its employees, agents, or subcontractors may cause pursuant to the activities performed under this contract.

Accordingly, Contractor agrees to indemnify and hold harmless the City of Los Angeles, its respective agencies, LADWPs, boards, all of their commissioners, officers, employees, and authorized agents, and, at the option of the City of Los Angeles, to provide a defense, reasonably acceptable to the LADWP, against any and all suits and causes of action, claims, charges, damages, demands, judgments, civil fines and penalties, or losses of any kind or nature whatsoever caused or brought by any person, including any aggrieved party, as defined in S.B. 1386, arising out of Contractor's breach of any of its duties and obligations under S.B. 1386 or A.B. 1950. The indemnification herein includes all awards, damages, interest, costs and attorneys' fees, if any. Such defense will be consistent with City Charter, Sections 271, 272 and 273.

d) Exceptions

Notwithstanding anything herein to the contrary, Confidential Information shall not be deemed to include any information which: (i) was already lawfully known to the Receiving Party at the time of disclosure by the Disclosing Party as reflected in the written records of the Receiving Party; (ii) was or has been disclosed by the Disclosing Party to a third party without obligation of confidence; (iii) was or becomes lawfully known to the general public without breach of this Agreement; (iv) is independently developed by the Receiving Party without access to, or use of, the Confidential Information; (v) is approved in writing by the Disclosing Party for disclosure by the Receiving Party; (vi) is required to be disclosed in order for the Receiving Party to enforce its rights under this Agreement; or (vii) is required to be disclosed by law or by the

order of a court or similar judicial or administrative body; provided, however, that the Receiving Party shall notify the Disclosing Party of such requirement immediately and in writing, and shall cooperate reasonably with the Disclosing Party, at the Disclosing Party's expense, in the obtaining of a protective or similar order with respect thereto.

e) Return of Confidential Information

The Receiving Party shall return to the Disclosing Party, destroy or erase all Confidential Information of the Disclosing Party in tangible form upon the written request of the Disclosing Party (except for Deliverables and any other items which the LADWP is otherwise entitled to retain under this Agreement) and the Receiving Party shall certify promptly and in writing that it has done so.

f) Escrow

(i) **Deposit.** No later than five (5) days after the Effective Date, Contractor and LADWP shall enter into an Escrow Agreement with such software source code escrow agent as may be reasonably required by the LADWP (the "Escrow Agent") pursuant to which Escrow Agreement Contractor shall immediately deposit with such Escrow Agent one (1) copy of all existing annotated Source Code listings, flow charts, decision tables, schematics, drawings, specifications, documentation, design details, and other related documents which pertain to the Software and all technology necessary to understand the design, structure, and implementation of the Software and to maintain, support and build Object Code of the Software (including, but not limited to, any tools which may or not be commercially available) such that a third party programmer reasonably skilled in

the language used in such materials could maintain and support the Software without further assistance or references to other materials (collectively, the "Escrow Materials"). Such Escrow Materials shall also include any Updates of such Software made available to the LADWP pursuant to Section 20 ("Maintenance and Support") of this Agreement, which Escrow Materials Contractor shall keep updated on no less frequent a basis than semi-annually.

(ii) **License Grant.** Subject to Section 18 ("Confidential Information and Source Code Escrow"), Contractor hereby grants to LADWP a perpetual, irrevocable, non-exclusive, royalty-free, fully paid up, non-transferable (except as provided in Subsection 24(j) ("Assignment") license with respect to the Escrow Materials (including without limitation all Proprietary Rights therein) to use, execute, copy and modify such Escrow Materials solely as reasonably necessary or desirable in order to exercise the LADWP's rights under this Agreement. Notwithstanding anything to the contrary herein, however, LADWP understands and agrees that it shall not exercise the license granted in this Subsection 18(f)(ii) ("License Grant") with respect to the Escrow Materials unless and until the Escrow Materials are released to LADWP pursuant to the Escrow Agreement.

19. Intellectual Property and Deliverables Indemnity

a) Statement of Indemnity
Contractor agrees that from and after the
Effective Date it shall fully indemnify,
defend and hold harmless the LADWP,
the Board, and its and their affiliates,
officers, directors, agents, employees,
customers and assigns (the "Indemnified")

Parties") from and against any and all claims, losses, liabilities, damages and costs (including attorneys' fees and court costs) arising from or relating to any Deliverables or arising from or relating to any claim, demand, threat, suit or proceeding by any third party regarding the Deliverables, including without limitation any claims of injury to persons or property, or of intellectual property infringement or misappropriation, by any third party. The LADWP shall notify Contractor promptly of any third party claim in connection with the foregoing, shall cooperate reasonably with Contractor in connection therewith (at Contractor's expense), in the defense or settlement of the foregoing. The LADWP shall have the right at its own expense to be represented in any action related to the foregoing by counsel of its own choice, and shall cooperate reasonably with Contractor with respect to such litigation.

b) Control

In Contractor's defense of the LADWP, negotiation, compromise, and settlement of any foregoing infringement or misappropriation action, the LADWP shall retain discretion in and control of the litigation, negotiation, compromise, settlement, and appeals therefrom, as required by the Los Angeles City Charter, particularly Article II, Sections 271, 272 and 273 thereof.

c) Bonds

Contractor understands and agrees that it shall, upon the LADWP's request, furnish a bond to the LADWP, in an amount as may be reasonable in the LADWP's judgment, against any and all loss, damage, costs, expenses, claims and liability for any possible infringement or misappropriation.

Claims and Remediation d) If Contractor receives notice of a claim, demand, threat, suit or proceeding regarding alleged intellectual property infringement or misappropriation by the Deliverables, or if in Contractor's judgment such a claim is likely, Contractor may, at its sole expense, procure for LADWP ownership of, or the right to continue using, the Deliverables, modify the Deliverables so that they are no longer infringing, or replace the Deliverables with other items of the same technical specifications and the same or better functionality and performance, which shall, upon acceptance by the LADWP, be considered Deliverables.

e) Use of Funds

Contractor certifies that it has appropriate systems and controls in place to ensure that LADWP funds will not be used in the performance of this Agreement for the acquisition, operation or maintenance of computer software in violation of copyright laws.

20. Maintenance and Support

a) Hardware Maintenance

Commencing with the first day after the expiration of the Hardware warranty described in Section 21 ("Warranties"), Contractor shall immediately commence providing Hardware Maintenance which shall consist of those activities and services described as such in Exhibit R ("Hardware Maintenance").

b) Software Maintenance

Commencing with the first day after the expiration of the Software warranty described in Section 21 ("Warranties"), Contractor shall immediately commence providing Software Maintenance which shall consist of those activities and

services described as such in Exhibit S ("Software Maintenance").

Any failure to Provide Maintenance
Any failure of Contractor to timely provide
Maintenance hereunder shall thereupon
immediately suspend any obligation of the
LADWP to pay any Fees, and may, in
addition and at the LADWP's option, be
considered a material breach of this
Agreement for purposes of Section 13
("Term and Termination").

d) Availability

Commencing with the Effective Date, and for five (5) years after the expiration or termination of this Agreement, whichever comes first, Contractor agrees that it shall continue to offer for sale to the LADWP, at commercially reasonable prices (and subject to Subsection 12(h) ("Most Favored Customer")), all Hardware supplies, materials and spare parts. To the extent that Contractor is not willing or able to comply with the foregoing obligation (and without waiving any rights or remedies the LADWP may have with respect thereto), Contractor shall provide to the LADWP its full cooperation and all documents, diagrams or designs necessary or useful to make, have made, use, lease, offer for sale, import and sell such Hardware supplies, materials and spare parts, and hereby grants to the LADWP a royalty-free, fully paid, worldwide, non-exclusive, nontransferable immunity under all intellectual property rights owned or licensable by Contractor in order to enable the LADWP to make, have made, use, lease, offer for sale, import and sell such Hardware supplies, materials and spare parts.

21. Warranties

a) Deliverables

Contractor hereby represents and warrants that the Deliverables (including without limitation all Hardware and Software, but not including Services) shall materially conform to their corresponding Specifications (including without limitation all Documentation) in normal use for a period of three (3) years from the date of their acceptance by the LADWP. In the event of any breach of the foregoing warranty, the LADWP shall promptly notify Contractor, and Contractor shall immediately either replace or, if commercially reasonable, repair such non-conforming Deliverables, and provide the same immediately to the LADWP. Any failure of Contractor to carry out the foregoing in a manner reasonably satisfactory to the LADWP, may, at the LADWP's option, be considered a material breach of this Agreement for purposes of Section 13 ("Term and Termination"). Any such repaired or replaced Deliverables shall continue to have the balance of their warranty period as hereinabove stated; provided, however, that such warranty period shall in no event be less than ninety (90) days.

b) Services

Contractor represents and warrants that Contractor shall perform the Services in a professional and workmanlike manner, in accordance with the best practices of Contractor's industry, and in material conformity with corresponding Specifications (including without limitation all Documentation). In the event of any breach of the foregoing warranty, the LADWP shall promptly notify Contractor, and Contractor shall immediately reperform the non-conforming Services. Any failure of Contractor to carry out the

foregoing in a manner reasonably satisfactory to the LADWP, may, at the LADWP's option, be considered a material breach of this Agreement for purposes of Section 13 ("Term and Termination").

General. Contractor represents c) and warrants that (i) Contractor has full power and authority to enter into this Agreement and the person signing the Agreement on Contractor's behalf has been duly authorized and empowered to enter into this Agreement; (ii) the Deliverables shall not contain any materials which are unlawful, defamatory, libelous, threatening, abusive, racist, vulgar, harassing, pornographic or obscene; (iii) Neither the Deliverables (including without limitation the provision of Services) nor any element thereof, infringes or shall infringe or misappropriate the intellectual property rights of any third party, including without limitation any patent, copyright, trademark or trade secret rights; (iv) the Deliverables shall not be subject to any restrictions, including without limitation any liens. mortgages, pledges, security interests, encumbrances, or encroachments; (v) Contractor is not under, and shall not enter into any, obligation or obligations inconsistent with the provisions of this Agreement; and (vi) Contractor shall not violate any law, statute, ordinance, or regulation in the course of its performance under this Agreement.

d) Viruses

Contractor represents and warrants that it has exercised and shall exercise its most diligent efforts to ensure that no viruses, "Trojan Horses", "Worms" or other damaging, dangerous or objectionable code (collectively, "Viruses") are included with the Deliverables. If at any time a

Virus may be found to exist in or have emanated from the Deliverables, or any electronic data, information or report generated thereby, Contractor agrees, at its sole expense, to exercise its most diligent efforts (including but not limited to providing appropriate replacement products, software, installation, and diagnostic testing) to remove such Virus within five (5) days of LADWP's notice.

Disclaimer e)

EXCEPT AS EXPRESSLY STATED IN THIS AGREEMENT, CONTRACTOR HEREBY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS AND IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

22. Reserved

23. Survival and Order of Precedence

In the event of any expiration or termination of this Agreement, the provisions of Section 1 ("Definitions"), Subsection 3(b) ("No Obligation"), Section 13 ("Term and Termination"), Section 16 ("Records and Audit"), Section 17 ("Rights in Work Product and Licenses"), Section 18 ("Confidential Information and Source Code Escrow"), Section 19 ("Intellectual Property and Deliverables Indemnity"). Section 21 ("Warranties"), Section 22 ("Limitation of Liability"), Section 23 ("Survival and Order of Precedence"), and Section 24 ("General") shall survive and shall continue to bind the parties. In the event of any conflict between the terms of this Agreement and the terms of any exhibit, the terms of the exhibit shall control. In the event of any conflict between the following documents, all of which are hereby incorporated by

reference into this Agreement, the order of precedence shall be as follows:

- a. Latest Change Order
- **b.** Task Assignment
- **c.** Agreement
- d. Other referenced documents
- e. Technical Response

24. General

Governing Law a)

This Agreement shall be governed in all respects by the laws of the United States of America and the State of California without regard to conflicts of law principles. The parties agree that the **United Nations Convention on Contracts** for the International Sale of Goods is specifically excluded from application to this Agreement.

b) Attorneys' Fees

In the event any proceeding or lawsuit is brought by the LADWP or Contractor in connection with this Agreement, each party shall bear its own attorneys' fees and costs.

c) Forum

Each party's performance hereunder shall comply with all applicable laws of the United States of America, the State of California, and the City of Los Angeles. The State and Federal Courts located in the City of Los Angeles shall have exclusive jurisdiction over any disputes under this Agreement, and the parties hereby submit to the personal jurisdiction of such courts.

d) **Injunctive Relief**

It is understood and agreed that, notwithstanding any other provisions of this Agreement, breach of the provisions of this Agreement by Contractor will cause the LADWP irreparable damage for which recovery of money damages would be inadequate, and that the LADWP shall therefore be entitled to obtain timely injunctive relief to protect the LADWP's rights under this Agreement in addition to any and all remedies available at law.

e) Notices

All notices or reports permitted or required under this Agreement shall be in writing and shall be delivered by personal delivery or by certified or registered mail, return receipt requested, and shall be deemed given upon personal delivery or five (5) days after deposit in the mail. Any such notice or report directed to the LADWP shall be delivered to:

Los Angeles Department of Water and Power

[Name]

Contract Administrator
111 North Hope Street, Room _____
Los Angeles, California 90012

Any such notice or report directed to the Contractor shall be delivered to:

[Name of Contractor] [Address] [Address]

Either party, by written notice, may designate different or additional person(s) or different addresses.

f) Agency

Nothing contained herein shall be construed as creating any agency, partnership, or other form of joint enterprise between the parties.

g) Waiver

The failure of either party to require performance by the other party of any provision hereof shall not affect the full right to require such performance at any

time thereafter; nor shall the waiver by either party of a breach of any provision hereof be taken or held to be a waiver of the provision itself.

h) Severability

In the event that any provision of this Agreement shall be unenforceable or invalid under any applicable law or be so held by applicable court decision, such unenforceability or invalidity shall not render this Agreement unenforceable or invalid as a whole, and, in such event, such provision shall be changed and interpreted so as to best accomplish the objectives of such unenforceable or invalid provision within the limits of applicable law or applicable court decisions.

i) Headings

The section headings appearing in this Agreement are inserted only as a matter of convenience and in no way define, limit, construe, or describe the scope or extent of such section or in any way affect this Agreement.

j) Assignment

Neither this Agreement nor any rights or obligations of Contractor hereunder may be assigned by Contractor in whole or in part without the prior written approval of the LADWP. Such approval may be withheld for any reason or no reason as this Agreement is a personal services contract and was awarded to Contractor based on the qualities of Contractor. For the purposes of this Subsection 24(j) ("Assignment"), a change in the persons or entities who control fifty percent (50%) or more of the equity securities or voting interest of Contractor shall be considered an assignment of Contractor's rights and obligations. The LADWP's rights and obligations, in whole or in part, under this

Agreement may be assigned by the LADWP. The LADWP may exercise full transfer and assignment rights in any manner at the LADWP's discretion.

k) Counterparts

This Agreement may be executed simultaneously in two (2) or more counterparts, each of which will be considered an original, but all of which together will constitute one and the same instrument.

I) Relationship of the Parties

The Contractor is acting hereunder as an independent Contractor and not as an agent or employee of the LADWP. The Contractor shall not represent or otherwise hold out itself or any of its directors, officers, partners, employees, or agents to be an agent or employee of the LADWP.

m) Entire Agreement

This Agreement together with the Exhibits hereto completely and exclusively states the agreement of the parties regarding its subject matter. This Agreement supersedes, and its terms govern, all prior proposals, agreements, or other communications between the parties, oral or written, regarding such subject matter. The terms of any Shrink-Wrap Agreement accompanying any Software delivered to the LADWP hereunder shall, to the extent inconsistent with the terms of this Agreement, have no effect whatsoever. This Agreement shall not be modified except by a subsequently dated written amendment or exhibit signed on behalf of the LADWP and Contractor by their duly authorized representatives. Any purported oral amendment to this Agreement shall have no effect.

This Agreement is executed in two (2) duplicate originals, each of which is deemed to be an original. This Agreement includes twenty-four (24) pages and twenty (20) Exhibits, which constitute the complete understanding among the Parties.

n) Represented by Counsel

Each Party acknowledges that it was represented by counsel in the negotiation and execution of this Agreement.

[Signature page follows.]

SIGNATURE PAGE

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives.

DEPARTMENT OF WATER AND POWER
OF THE CITY OF LOS ANGELES BY
BOARD OF WATER AND POWER COMMISSIONERS

Consultant's Name (Must be signed by two executives or officers of firm)

By:	By:
DAVID H. WRIGHT	PRINT NAME
General Manager	Title
	(Chairman of Board of Directors,
	President or Vice President)
Data	Deter
Date:	Date:
And:	By:
BARBARA E. MOCHOS	PRINT NAME
Secretary	Title
	(Corporate Secretary or
	Chief Financial Officer)
	Date:

Contractor Code: [LADWP Contractor Code Number]
City Business Tax Registration Certificate Number: [City Business Tax Registration Certificate Number]

EXHIBIT A General Conditions (Services)

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GC-1 Construction of Provisions and Titles Herein

All titles or subtitles appearing herein have been inserted for convenience and shall not be deemed to affect the meaning or construction of any of the terms or provisions hereof. The language of this Agreement shall be construed according to its fair meaning and not strictly against LADWP or the Consultant. The word "Consultant" herein and in any amendment hereto means the Party or Parties identified in this Agreement wherein this Exhibit is incorporated by reference; the singular shall include the plural; if there shall be more than one Consultant herein, unless expressly stated otherwise, their obligations and liabilities hereunder shall be joint and several; use of feminine, masculine, or neutral gender shall be deemed to include the genders not used.

GC-2 Applicable Law, Interpretation, Enforcement and Severability

Each Party's performance hereunder shall comply with all applicable laws of the United States of America, the State of California, and the City of Los Angeles, including but not limited to laws regarding health and safety, labor employment, wage and hours, workers compensation, and licensing laws which affect employees. Consultant shall comply with new, amended, or revised laws, regulations, and/or procedures that apply to the performance of this Agreement.

This Agreement was made and entered into in the City of Los Angeles and shall be governed by, interpreted and enforced in accordance with the laws of the State of California and the City of Los Angeles, without regard to conflicts of laws principles. All litigation arising out of, or relating to, this Agreement shall be brought in a State or Federal court in the County of Los Angeles in the State of California. The Parties irrevocably agree to submit to the exclusive jurisdiction of such courts in the State of California and waive any defense of *forum non conveniens*.

If any part, term or provision of this Agreement shall be held invalid, void, illegal, unenforceable, or in conflict with any law of a federal, state or local government having jurisdiction over this Agreement, the validity of the remaining parts, terms or provisions shall not be affected or impaired thereby.

The provisions of this article shall survive the expiration or termination of this Agreement.

GC-3 Time of Effectiveness

Unless otherwise provided, this Agreement shall take effect when all of the following events have occurred:

A. This Agreement has been signed on behalf of the Consultant by the person(s) authorized to bind the Consultant hereto.

- B. This Agreement has been approved by the City Council or by the Board, inclusive of City Council review period, officer, or employee authorized to give such approval.
- C. The Office of the City Attorney has indicated in writing its approval of this Agreement as to form and legality.
- D. This Agreement has been signed on behalf of LADWP by the person designated by the Board, officer or employee authorized to enter into this Agreement.

GC-4 Integrated Agreement

This Agreement sets forth all of the rights and duties of the Parties with respect to the subject matter hereof, and replaces any and all previous agreements and understandings, whether written or verbal, relating hereto. This Agreement may be amended only as provided for in Article IX, Amendments and Administrative Changes to the Agreement of this Agreement.

GC-5 Reserved

GC-6 Waiver

A waiver of a default of any part, term, or provision of this Agreement shall not be construed as a waiver of any succeeding default or as a waiver of the part, term or provision itself. A Party's performance after the other Party's default shall not be construed as a waiver of that default.

GC-7 Independent Consultant

The Consultant is acting hereunder as an independent Consultant and not as an agent or employee of LADWP or the City of Los Angeles, and all of the terms and conditions of this Agreement shall be interpreted in light of that relationship. The Consultant, including Consultant's Subconsultants, suppliers, employees, and agents, shall not represent or otherwise hold out itself or any of its directors, officers, partners, employees, or agents to be an agent or employee of LADWP for any purpose whatsoever. The Consultant shall not be entitled to any LADWP or City of Los Angeles benefits, including but not limited to, vacation, sick leave, Workers' Compensation, or pension.

GC-8 Prohibition Against Assignment or Delegation

The Consultant may not, unless it has first obtained the written permission of LADWP:

A. Assign or otherwise alienate any of its rights hereunder, including the right to payment; or

B. Delegate, subcontract, or otherwise transfer any of its duties hereunder.

Such permission may be withheld at LADWP's sole discretion for any reason or no reason at all since the award of this Agreement was based upon the personal services to be provided by the Consultant.

GC-9 Licenses and Certifications

The Consultant and its officers, agents, and employees shall obtain and maintain all licenses, permits, certifications and other documents necessary for the Consultant's performance hereunder and shall pay any fees required therefore. Such licenses, permits, certifications shall be specific to the State of California or regional regulatory agencies, as applicable to Consultant's services, work, task, and deliverables pursuant to this Agreement. Consultant agrees to immediately notify LADWP of any suspension, termination, lapse, non-renewal, or restriction of such licenses, permits, certifications, or other documents.

GC-10 Non Discrimination/Equal Employment Practices/Affirmative Action

A. Non Discrimination and Equal Employment Practices

The Agreement shall comply with the provisions of Los Angeles Administrative Code Section 10.8.2, Non-Discrimination Clause and Section 10.8.3, Equal Employment Practices. By affixing its signatures on the Agreement that is subject to the Equal Employment Practices Provisions, the Consultant shall agree to adhere to the provisions in the Equal Employment Practices Provisions for the duration of the Agreement.

Furthermore, the Consultant shall include similar provisions in all subcontracts awarded for work to be performed under the Agreement with LADWP and shall impose the same obligations. The contract with the Subconsultant that contains similar language shall be made available to LADWP upon request.

B. Affirmative Action Program

The Agreement shall comply with the provisions of Los Angeles Administrative Code 10.8.4, Affirmative Action Program. By affixing its signature on the Agreement that is subject to the Affirmative Action Program provisions, the Consultant shall agree to adhere to the provisions in the Affirmative Action Program for the duration of the Agreement.

Furthermore, the Consultant shall include similar provisions in all subcontracts awarded for work to be performed under the Agreement with LADWP and shall impose the same obligations. The contract with the

Subconsultant that contains similar language shall be made available to LADWP upon request.

GC-11 Claims for Labor and Materials

The Consultant shall promptly pay, when due, all amounts payable for labor and materials furnished in the performance of this Agreement so as to prevent any lien or other claim under any provision of law from arising against LADWP or City of Los Angeles or any of their respective property (including reports, documents, and other tangible matter produced by the Consultant hereunder), against the Consultant's rights to payments hereunder, and shall pay all amounts due under the Unemployment Insurance Act with respect to such labor.

GC-12 Los Angeles City Business Tax Registration Certificate Required

The Consultant represents that it has obtained and presently holds a Business Tax Registration Certificate(s) required by the City of Los Angeles Business Tax Ordinance (Article 1, Chapter II, Article 21.00 and following, of the Los Angeles Municipal Code). For the term covered by this Agreement, the Consultant shall maintain, or obtain as necessary, all such Certificates required under said ordinance and shall not allow any such Certificate to be revoked or suspended.

GC-13 Indemnification Provisions

General Indemnification

The Consultant undertakes and agrees to indemnify and hold harmless the City of Los Angeles, the Department of Water and Power, the Board of Water and Power Commissioners of the City of Los Angeles, and all of their officers and employees, and, at the option of LADWP, defend LADWP and any and all of its Board, officers, agents, representatives, employees, assigns and successors in interest from and against any and all suits and causes of action, claims, charges, damages, demands, judgments, civil fines and penalties, or losses of any kind or nature whatsoever, for death, bodily injury or personal injury to any person, including Consultant's employees and agents, or damage or destruction to any property of either party hereto, or third persons in any manner caused by the acts, errors, or omissions incident to the performance of this contract on the part of the Consultant, or the Consultant's officers, agents, employees, or Subconsultants of any tier, except for the sole negligence or willful misconduct of LADWP, its Board, officers, agents, or employees.

Intellectual Property Indemnity

Consultant will indemnify, defend at its expense and hold harmless LADWP against any loss, cost, expense, liability, and damages paid by LADWP as a result of any judgment or settlement as a consequence of any infringement claim, demand, proceeding, suit or action (hereinafter "Action") against LADWP, its officers, directors, agents, employees,

or affiliates for any infringement or violation, actual or alleged, direct or contributory, intentional or otherwise, of any intellectual property rights, including patents, copyrights, trade secrets, trademarks, service marks, and other proprietary information or rights (collectively "Intellectual Property Rights" hereinafter), (1) on or in any design, medium, matter, plant, article, process, method, application, equipment, device, instrumentation, software, hardware, or firmware used by the Consultant in the construction of the work under this Agreement; or (2) as a result of LADWP's actual or intended use under the specifications contained herein by LADWP of any product furnished by Consultant (hereinafter "Consultant Product"). Consultant Product herein includes, without limitation, any hardware, software, firmware, equipment, device, instrumentation, design, medium, matter, plant, article, process, method, and application. Consultant, however, shall have no liability to LADWP herein with respect to any claim of infringement which is based upon the combination or utilization of the Consultant Product with machines or devices not reasonably anticipated hereunder; or based upon a modification by LADWP of the Consultant Product furnished hereunder.

In Consultant's defense of LADWP, negotiation, compromise, and settlement of any such infringement action, LADWP shall retain discretion in and control of the litigation, negotiation, compromise, settlement, and appeals therefrom, as required by the City Charter, particularly Article II, Sections 271, 272 and 273 thereof.

In addition, if any part of the Consultant Product (a) becomes the subject of an action, (b) is adjudicated as infringing any Intellectual Property right, or (c) has its use enjoined or license terminated, Consultant shall, with LADWP's consent, do one of the following immediately at its expense: i) procure for LADWP the right to continue using said infringing part of the product; ii) replace the product with a functionally equivalent, non-infringing product; or iii) modify the product so it becomes non-infringing.

Exercise of any of the above-mentioned options shall not cause undue business interruption to LADWP or diminish the intended benefits and use of the Consultant Product by LADWP under the specifications herein. If Consultant proves, to LADWP's satisfaction, that none of the options (i), (ii), or (iii) are feasible, Consultant shall instead refund the full purchase price of the product.

Rights and remedies available to LADWP hereinabove shall survive the expiration or other termination of this Agreement. Further, the rights and remedies are cumulative of those provided for elsewhere in this Agreement and those allowed under the laws of the United States, the State of California, and the City of Los Angeles.

This Condition shall survive the expiration or other termination of this Agreement.

GC-14 Insurance

A. General Statement

Acceptable evidence of required insurance, from insurers acceptable to

LADWP, is required to be submitted by the Consultant and must be maintained current by the Consultant throughout the term of this Agreement. Said evidence of insurance must be on file with the Risk Management Section in order to receive payment under any agreement for services rendered, and in order to commence work under this Agreement.

B. Applicable Terms and Conditions

(1) Additional Insured Status Required

Consultant shall procure at its own expense, and keep in effect at all times during the term of this Agreement, the types and amounts of insurance specified on the attached Contract Insurance Requirements page. The specified insurance shall by use of City's own endorsement form or by other endorsement(s) attached to such policies, include the City of Los Angeles, LADWP, the Board, and all of their respective officers, employees and agents, their successors and assigns, as additional insureds against the area of risk described herein as respects Consultant's acts, errors, or omissions in its performance of this Agreement, hereunder or other related functions as agreed upon by the parties and performed by or on behalf of Consultant. Such insurance shall not limit or qualify the liabilities and obligations of the Consultant assumed under this Agreement.

(2) Severability of Interests and Cross Liability Required

Each specified insurance policy, as applicable, shall contain a Severability of Interest and Cross Liability clause and shall apply separately to each insured against whom a claim is made or suit is brought and a Contractual Liability Endorsement.

(3) Primary and Non-Contributory Insurance Required

All such insurance shall be Primary and Noncontributing with any other insurance held by LADWP where liability arises out of, or results from, the acts, errors, or omissions of Consultant, its agents, employees, officers, assigns, or any person or entity acting for or on behalf of Consultant. Any insurance carried by LADWP which may be applicable shall be deemed to be excess insurance and the Consultant's insurance is primary for all purposes despite any conflicting provision in the Consultant's policies to the contrary.

(4) Proof of Insurance for Renewal or Extension Required

Within ten (10) days after the expiration date of any of the policies required on the attached Contract Requirement page, Consultant shall

provide documentation showing that the insurance coverage has been renewed or extended to LADWP.

(5) Submission of Acceptable Proof of Insurance and Notice of Cancellation

Consultant shall provide proof to the Risk Manager of all specified insurance and related requirements either by use of LADWP's own endorsement form(s), by other written evidence of insurance acceptable to the Risk Manager, but always in a form acceptable to the Risk Manager. The documents evidencing all specified coverage shall be filed with LADWP prior to Consultant beginning operations hereunder. Said proof shall contain at a minimum, the applicable policy number, the inclusive dates of policy coverage, the date the protection begins for LADWP, and the insurance carrier's name. It shall provide that such insurance shall not be subject to cancellation, material reduction in coverage or non-renewal except after written notice by certified mail, return receipt requested, to the Risk Management Section at least thirty (30) calendar days prior to the effective date thereof. The notification shall be sent by electronic means or registered mail to: The Risk Management Section, Financial Service Organization, Post Office Box 51111, JFB Room 465, Los Angeles, California 90051-0100.

(6) Claims-Made Insurance Conditions

Should any portion of the required insurance be on a "Claims Made" policy, the Consultant shall, at the policy inception date following each renewal year, provide evidence that the "Claims Made" policy has been renewed with a retro-active or extended discovery period at a minimum to the policy in place as of the effective date of this agreement with the same limits, terms and conditions of the expiring policy.

(7) Failure to Maintain and Provide as Cause for Termination

Failure to maintain and provide acceptable evidence of the required insurance for the required period of coverage shall constitute a breach of contract, upon which LADWP may immediately terminate or suspend this Agreement.

(8) Specific Insurance Requirements

See Exhibit G, Contract Insurance Requirements-LADWP.

GC-15 Child Support Policy

The Consultant and any Subconsultant(s) must fully comply with all applicable State and Federal employment reporting requirements for the Consultant's and any Subconsultant(s)' employees. The Consultant and any Subconsultant(s) must fully comply with all lawfully served Wage and Earnings Assignment Orders and Notices of Assignment in accordance with the California Family Code. The Consultant and any Subconsultant(s) must certify that the principal owner(s) thereof (any person who owns an interest of 10 percent or more) are in compliance with any Wage and Earnings Assignment Orders or Notices of Assignment applicable to them personally. The Consultant and any Subconsultant(s) must certify that such compliance will be maintained throughout the term of this Agreement.

Failure of the Consultant and/or any Subconsultant(s) to fully comply with all applicable reporting requirements or to implement lawfully served Wage and Earnings Assignments or Notices of Assignment or failure of the principal owner(s) to comply with any Wage and Earnings Assignments or Notices of Assignment applicable to them personally shall constitute a default under this Agreement. Failure of the Consultant and/or any Subconsultant(s) or principal owner(s) thereof to cure the default within ninety (90) calendar days of notice of such default by LADWP shall subject this Agreement to termination.

The Consultant will contractually require all Subconsultants performing services under this Agreement to comply with the provisions of this section.

GC-16 Service Contract Worker Retention Ordinance and Living Wage Policy

Unless otherwise exempt in accordance with the provisions of this Ordinance, this contract is subject to the applicable provisions of the Service Contractor Worker Retention Ordinance (SCWRO), Section 10.36 et seq., and the Living Wage Ordinance (LWO), Section 10.37 et seq. of the Los Angeles Administrative Code. The ordinance require that unless a specific exemption applies as determined by the awarding authority and confirmed by the designated administrative agency, all employers (as defined) under contracts primarily for the furnishing of services to or for the City and that involve an expenditure or receipt in excess of \$25,000 and a contract term of at least 3 months; lessees; LADWPs; or certain recipients of City financial assistance, generally shall provide the following:

A. Retention by a successor Consultant for a 90 day transition period, the employees who have been employed for the preceding 12 months or more by the terminated Consultant or Subconsultant, earning no more than twice the hourly wage without health benefits available under the LWO Section 10.37 et seq. of the Los Angeles Administrative Code;

- B. Payment of a minimum initial wage rate to employees as defined in the LWO, as may be adjusted each July 1, and provisions of benefits as defined in the LWO.
- C. Consultant further pledges that the Consultant shall comply with federal law proscribing retaliation for union organizing and shall not retaliate for activities related to the LWO. Consultant shall require each of its Subconsultants within the meaning of the LWO to pledge to comply with the terms of federal law proscribing retaliation for union organizing. Consultant shall deliver the executed pledges from each such Subconsultant to the City within 90 days of the execution of the Subconsultant. Consultant's delivery of executed pledges from each such Subconsultant shall fully discharge Consultant's obligation with respect to such pledges and fully discharge the obligation of the Consultant and Subconsultants to comply with the provision in the LWO contained in Section 10.37.6(c) concerning compliance with such federal law.
- D. The Consultant, whether an employer, as defined in the LWO, or any other person employing individuals, shall not discharge, reduce in compensation, or otherwise discriminate against any employee for complaining to the City with regard to the employer's compliance or anticipated compliance with the LWO, for opposing any practice proscribed by the LWO, for participating in proceedings related to the LWO, for seeking to enforce the employee's rights under the LWO by any lawful means, or otherwise asserting rights under the LWO by any lawful means, or otherwise asserting rights under the LWO. The Consultant shall post the LWO Notice to Employees and the Notice of Prohibition Against Retaliation, in a conspicuous place.
- E. Any Subcontract entered into by the Consultant relating to this Agreement, to the extent allowed hereunder, shall be subject to these provisions and shall incorporate the provisions of the LWO and the SCWRO.
- F. Consultant shall comply with all rules, regulations and policies promulgated by the designated administrative agency, which may be amended from time to time.

Under the provisions of Section 10.36.3(c) and Section 10.37.6(c) of the Los Angeles Administrative Code, the City shall have the authority, under appropriate circumstances, to terminate this contract and otherwise pursue legal remedies that may be available if the City determines that the subject Consultant has violated provisions of the LWO and the SCWRO or both.

Where under the LWO Section 10.37.6(e), the designated administrative agency has determined (a) that the Consultant is in violation of the LWO in having failed to pay some or all of the living wage, and (b) that such violation has gone uncured, the

awarding authority in such circumstances may impound monies otherwise due the Consultant in accordance with the following procedures. Impoundment shall mean that from monies due the Consultant the awarding authority may deduct the amount determined to be due and owing by the Consultant to its employees. Such monies shall be placed in the holding account referred to in LWO Section 10.37.6(d)(3) and disposed of under procedures there described through final and binding arbitration. Whether the Consultant is to continue work following an impoundment shall remain in the unfettered discretion of the awarding authority. The Consultant may not elect to discontinue work either because there has been an impoundment or because of the ultimate disposition of the impoundment by the arbitrator.

Earned Income Tax Credit

This contract is subject to the provisions of Section 10.37.4(b) of the Los Angeles Administrative Code, requiring employers to inform employees of their possible right to the federal Earned Income Tax Credit (EITC). Employers must further make available to employees the forms required to secure advance EITC payments from employers.

GC-17 Americans with Disabilities Act

The Consultant hereby certifies that it will comply with the Americans with Disabilities Act 42, U.S.C. Section 12101 et seq., and its implementing regulations. The Consultant will provide reasonable accommodations to allow qualified individuals with disabilities to have access to and to participate in its programs, services and activities in accordance with the provisions of the Americans with Disabilities Act. The Consultant will not discriminate against persons with disabilities or against persons due to their relationship or association with a person with a disability. Any subcontract entered into by the Consultant, relating to this Agreement, to the extent allowed hereunder, shall be subject to the provisions of this paragraph.

GC-18 Retention of Records, Audit, and Reports

Consultant shall maintain, and shall cause Consultant's Subconsultants and suppliers to maintain records pertaining to the performance of services pursuant to this Agreement, in their original form, including but not limited to, reports, documents, deliverables, employee time sheets, accounting procedures and practices, records of financial transactions, and other evidence, regardless of form (e.g., machine readable media such as disk, tape, etc.) or type (e.g., databases, applications software, database management software, utilities, etc.), sufficient to properly reflect all fees claimed to have been incurred and services performed pursuant to this Agreement ("financial records").

All financial records shall be retained, and shall be subject to examination and audit by LADWP personnel or by LADWP's agents (herein after "Authorized Auditors"), for a period of not less than four (4) years following final payment made by LADWP hereunder or the expiration date of this Agreement, whichever is later.

Upon thirty days' written notice to Consultant, LADWP shall have the right to audit the financial records of Consultant and its Subconsultants, upon reasonable written notice to Consultant, no more than one time per year, at LADWP's cost. The Authorized Auditors shall make good faith efforts not to unreasonably interfere with Consultant's normal business operations. LADWP shall have the right to contract a third-party audit firm to conduct such an audit, provided that such third-party audit firm agrees to Consultant's standard nondisclosure terms and to utilize standard audit software and methodologies. Any information provided by Consultant and its Subconsultants on machine readable media (e.g. Access, Excel or ACL) shall be provided in a format accessible and readable by the Authorized Auditors. Consultant and Subconsultant shall not, however, be required to furnish the Authorized Auditors with commonly available software.

Examinations and audits will be performed using generally accepted auditing practices and principles and applicable City, State and Federal government audit standards. For Consultants that utilize or are subject to FAR, Part 30 and 31, et seq. accounting procedures, or a portion thereof, examinations and audits will utilize such information.

To the extent that the Authorized Auditor's examination or audit reveals inaccurate, incomplete or non-current records, or records are unavailable, the records shall be considered defective, and consistent with standard auditing procedures the Consultant will be provided thirty (30) calendar days to review the Authorized Auditor's examination results or audit and respond to LADWP prior to the examination's or audit's finalization.

If the Authorized Auditor's examination or audit indicates an error in billing resulting in either an underpayment or overpayment under a previous payment application, the identified discrepancy shall be reviewed. The Parties will discuss the best manner in which to correct the error within fifteen (15) calendar days of Authorized Auditor's notice to the Parties of the billing error. The Party in error will pay the other Party the amount of the discrepancy within fifteen (15) calendar days thereafter.

The Consultant shall contractually require all Subconsultants performing services under this Agreement to comply with the provisions of this section by inserting this provision GC-18 in each Subconsultant contract and by contractually requiring each Subconsultant to insert this provision GC-18 in any of its Subconsultant contracts related to services under this Agreement. In addition, Consultant and Subconsultants shall also include the following language in each Subconsultant contract:

"LADWP is a third party beneficiary of the foregoing audit provision. The benefits of the audit provision shall inure solely for the benefit of LADWP. The designation of LADWP as a third party beneficiary of the audit provision shall not confer any rights or privileges on the Consultant, Subconsultant or any other person/entity."

If an examination or audit undertaken pursuant to the Retention of Records, Audit, and Reports provision of the General Conditions GC-18 for LADWP Professional Service

Contracts reveals that LADWP overpayment to the Consultant is more than 5% of the billings reviewed, the Consultant shall pay all expenses and costs incurred by the Authorized Auditors arising out of or related to the examination or audit. Such examination or audit expenses and costs shall be paid by the Consultant to LADWP within fifteen (15) calendar days of notice to the Consultant of the costs and expenses.

The provisions of this section shall survive expiration or termination of this Agreement.

GC-19 LADWP's Recycling Policy

The Consultant shall submit all written documents on paper with a minimum of thirty (30) percent post-consumer recycled content. Existing company/corporate letterhead/stationery that accompanies these documents is exempt from this requirement. Documents of two or more pages in length shall be duplex-copied (double-sided pages). Neon or fluorescent paper shall not be used in any written documents submitted to LADWP.

GC-20 Taxpayer Identification Number (TIN)

The Consultant represents that it has obtained and presently has a Tax Identification Number (TIN). For the term covered by this Agreement, the Consultant shall maintain, or obtain as necessary, a TIN. No payment will be made under this Agreement without a valid TIN number.

GC-21 Beneficiaries

This Agreement is intended only for the benefit of the Parties hereto and does not, nor shall be interpreted, to create any rights in any nonsignatory to this Agreement.

GC-22 Consultant's Successors and Assigns

All indemnifications and warranties provided by the Consultant pursuant to this Agreement will be assumed by and binding upon the Consultant's successors and assigns. The provisions of this paragraph shall survive expiration or termination of this Agreement.

GC-23 Attorney's Fees and Costs

Both Parties hereto agree that in any action to enforce the terms of this Agreement, each Party shall be responsible for its own attorneys' fees and costs. The provisions of this paragraph shall survive expiration or termination of this Agreement.

GC-24 Equal Benefits Ordinance

Unless otherwise exempted in accordance with the provisions of this Ordinance, this Contract is subject to the applicable provisions of the Equal Benefits Ordinance (EBO)

Section 10.8.2.1 of the Los Angeles Administrative Code, as amended from time to time.

A. During the performance of the Contract, the Contractor certifies and represents that the Contractor will comply with the EBO. The Contractor agrees to post the following statement in conspicuous places at its place of business available to employees and applicants for employment:

"During the performance of a Contract with the City of Los Angeles, the CONTRACTOR will provide equal benefits to employees with spouses and its employees with domestic partners. Additional information about the City of Los Angeles' Equal Benefits Ordinance may be obtained from the Department of Public Works, Bureau of Contract Administration, Office of Contract Compliance at (213) 847-1922."

- B. The failure of the Contractor to comply with the EBO may be deemed to be a material breach of the Contract by the Awarding Authority.
- C. If the Contractor fails to comply with the EBO, the Awarding Authority may cancel, terminate or suspend the Contract, in whole or in part and all monies due or to become due under the Contract may be retained by the City. The City may also pursue any and all other remedies at law or in equity for any breach.
- D. Failure to comply with the EBO may be used as evidence against the Contractor in actions taken pursuant to the provisions of Los Angeles Administrative Code Section 10.40 et seq., Contractor Responsibility Ordinance.
- E. If the Bureau of Contract Administration determines that a Contractor has set up or used its Contracting entity for the purpose of evading the intent of the EBO, the Awarding Authority may terminate the Contract on behalf of the City. Violation of this provision may be used as evidence against the Contractor in actions taken pursuant to the provisions of Los Angeles Administrative Code Section 10.40 et seq., Contractor Responsibility Ordinance.

GC-25 Contractor Responsibility Program

Unless otherwise exempt in accordance with the provisions of the Ordinance, this Contract is subject to the provisions of the Contractor Responsibility Ordinance, Section 10.40 et seq., of the Los Angeles Administrative Code, which requires Contractor to update its responses to the responsibility questionnaire within thirty calendar days after any change to the responses previously provided if such change would affect

Contractor's fitness and ability to continue performing the contract. In accordance with the provisions of this Ordinance, by signing this Contract, Contractor pledges, under penalty of perjury, to comply with all applicable federal, state and local laws in the performance of this contract, including but not limited to, laws regarding health and safety, labor and employment, wages and hours, and licensing laws which affect employees. Violations of the Contractor Responsibility Ordinance shall constitute a material breach of this Agreement and entitle the LADWP to terminate this Agreement and otherwise pursue legal remedies that may be available.

The Contractor further agrees to:

- A. Notify the awarding authority within thirty calendar days after receiving notification that any government agency has initiated an investigation which may result in a finding that the Contractor is not in compliance with all applicable federal, state and local laws in performance of this contract;
- B. Notify the awarding authority within thirty calendar days of all findings by a government agency or court of competent jurisdiction that the Contractor has violated the provisions of Section 10.40.3(a) of the Ordinance;
- C. Ensure that its subcontractor(s), as defined in the Ordinance, submit a Pledge of Compliance to awarding authorities; and
- D. Ensure that its subcontractor(s), as defined in the Ordinance, comply with the requirements of the Pledge of Compliance and the requirement to notify Awarding Authorities within thirty calendar days after any government agency or court of competent jurisdiction has initiated an investigation or has found that the subcontractor has violated Section 10.40.3(a) of the Ordinance in performance of the subcontract.

GC-26 Bidder Campaign Contribution and Fundraising Restrictions

In accordance with the City of Los Angeles Charter Section 470(c)(12) and related ordinances, bidders may not make campaign contributions to and or engage in fundraising for certain elected City officials or candidates for elected City office from the time they submit a bid to LADWP until either the contract is awarded or, for successful bidders, 12 months after the contract is executed. The bidder's principals and subcontractors performing \$100,000 or more in work on the contract, as well as the principals of those subcontractors, are also subject to the same limitations on campaign contributions and fundraising.

The Consultant shall comply with the City Ethics Commission's "CEC Form 55" (3 pages) affidavit. The affidavit requires bidders to identify their principals, their subcontractors performing \$100,000 or more in work on the contract, and the principals of those subcontractors. Consultants shall also notify their principals and subcontractors in writing of the restrictions and include the notice in contracts with subcontractors.

EXHIBIT A General Conditions

Consultants who fail to comply with City law may be subject to penalties, termination of contract, and debarment. Additional information regarding these restrictions and requirements may be obtained from the City Ethics Commission at (213) 978-1960 or ethics.lacity.org.

GC-27 Municipal Lobbying Ordinance

The City of Los Angeles Municipal Code Section 48.01 et seq. requires certain individuals and entities to register with the City Ethics Commission and requires public disclosure of certain lobbying activities, including money received and spent. Therefore all bidders for all construction contracts, public leases, or licenses of any value and duration and bidders for goods or service contracts with a value of more than \$25,000 and a term of at least 3 months, shall comply with the City Ethics Commission's "CEC Form 50" (1 page) affidavit. A copy of the City of Los Angeles Municipal Lobbying Ordinance is available for download on the City Ethics Commission's website at http://ethics.lacity.org/PDF/laws/law_mlo.pdf. Additional information regarding the Municipal Lobbying Ordinance may be obtained from the City Ethics Commission at (213) 978-1960 or ethics.lacity.org.

GC-28 Iran Contracting Act of 2010

In accordance with California Public Contract Code Sections 2200-2208, all Consultants entering into, or renewing contracts with LADWP for goods and services estimated at one million dollars (\$1,000,000) or more shall complete, sign, and submit the "Iran Contracting Act of 2010 Compliance Affidavit."

GC-29 Contractor Performance Evaluation

Under Division 10, Chapter 1, Article 13, Section 10.39 of the Los Angeles Administrative Code, LADWP has established a post-award contractor evaluation program that requires performance monitoring and reporting. The LADWP's Contractor Performance Evaluation Program (CPEP) document can be found at the following weblink: https://www.ladwp.com/ladwp/faces/ladwp/partners/p-Contractorsandbidders

LADWP will evaluate and record the Contractor's overall performance to determine whether the Contractor is fulfilling its obligations on the current contract and to assess the Contractor's suitability to perform work for LADWP in the future. Contractors are required to meet critical contract provisions including, but not limited to, timely shipment and delivery of goods, completeness of delivered goods, quality of delivered goods, accuracy of billing, and conformance to the terms and conditions of the contract. If such conditions are breached, consistent with the terms of the contract, the Director of Supply Chain Services may terminate the contract for poor performance and may also debar the Contractor from doing business with LADWP for a period up to five years in accordance with the LADWP's Contractor Performance Evaluation Program.

EXHIBIT A General Conditions

GC-30 Reserved

GC-31 Safety

The Consultant shall arrange facility visits with LADWP who shall advise the Consultant of appropriate safety and security rules. The Consultant shall adhere to the restrictions and instructions of LADWP personnel when visiting any facility.

The Consultant shall do everything reasonable to protect the life, safety, and health of persons at the construction site. The Consultant shall furnish and use safety devices and safeguards and shall adopt and use practices, means, methods, operations, and processes which are reasonably adequate to render safe and healthful employment. The Consultant shall be responsible for ensuring that each of the Consultant's Subconsultants meets the standards of this Article.

GC-32 Non-Interference

The Consultant's performance of the work under this Agreement shall not interfere unnecessarily with the operation of LADWP or any other City department.

END OF GENERAL CONDITIONS

EXHIBIT B

Special Provisions

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SP-1 Definitions and Acronyms

ABC: Available Balancing Capacity

ADS: Automated Dispatch Signal (EIM Application)

ALFS: Automated Load Forecast System (EIM Application)

API: Automated Programmatic Interface

BAAOP: Balancing Authority Area Operations portal (EIM

Application)

Board: The Los Angeles Department of Water and Power Board

of Commissioners.

BSAP: Base Schedule Aggregation Portal (EIM Application)

CAISO: California Independent System Operator

CIDI: Customer Inquiry, Dispute & Information

CMRI: California Market Results Interface (EIM Application)

Connectivity Testing: Connectivity CAISO Testing (EIM testing phase)

Contractor: Synonymous with Consultant/Proposer.

Contract Administrator (CA): Unless specified otherwise in the RFP, the CA shall refer

to an LADWP employee who is assigned to administer contracts and manage projects derived from this RFP.

Counter Factual: Calculation of alternative that did not come to pass (but

would have absent EIM)

CRR: Congestion Revenue Rights

DA: Day-Ahead

DAME: Day-Ahead Market Enhancement

Declared Emergency: An emergency declared by the General Manager of

LADWP and communicated by the Contract

Administrator or his/her representative, which may include business disruptions and natural disasters.

DITL:	Day In the Life (EIM testing phase)			
DMZ environment:	Demilitarized zone (sometimes referred to as a perimeter network) is a physical or logical subnetwork that contains and exposes an organization's external-facing services to an untrusted network, usually a larger network such as the Internet.			
DOT:	Dispatch Operating Target			
eDAM:	Extended Day-Ahead Market Enhancement (CAISO's)			
EESC:	EIM Entity Scheduling Coordinator			
EIM:	Energy Imbalance Market			
ELAP:	EIM Load Aggregation Point			
EMS:	Energy Management System			
ETL:	Extract, Transform, Load			
FAT:	Factory Acceptance Test (Contractor testing phase)			
FMM:	Fifteen Minute Market			
GF:	Grandfathered			
GHG:	Greenhouse Gas			
GRDT:	Generation Resource Data Template			
GUI:	Graphical User Interface			
HASP:	A CAISO (non-EIM) concept, stands for Hour Ahead Scheduling Process			
IST:	Inter-SC Trade			
I.T.:	Information Technology			
JFB:	John Ferraro Building			

JavaScript Object Notation

JSON:

JOT: Joint Owned Transmission LMP: **Locational Marginal Price** Market SIM: Market Simulation (EIM testing phase) MRI-S: Market Results Interface - Settlements (EIM Application) MRTU: A CAISO (non-EIM) concept, stands for Market Redesign and Technology Upgrade MSG: Multi-Stage Generators MW: Megawatt **NPR** Non-Participating Resources - EIM terminology for generation not dispatchable by EIM. OASIS: California ISO Open Access Same-time Information System (EIM Application) Offeror: Synonymous with Bidder. OMS: Outage Management System (EIM Application) Parallel Ops: Parallel Operations (EIM testing phase) PR: Participating Resources - EIM terminology for generation dispatchable by EIM. Predictive Settlements: Calculating Settlements using internal data prior to T+3B PRSC: Participating Resource Scheduling Coordinator – Utility in the market that has dispatchable generation. PSE: Purchasing and Selling Entity RC: Reliability Coordinator RDT: Resource Data Template RT: Real Time

Real Time Pre Dispatch

RTPD:

QA: **Quality Assurance** SAT: System Acceptance Test (Contractor testing phase) SC: Scheduling Coordinator – CAISO term for a utility in the Market. SFTP: Secure File Transfer Protocol Shadow Settlements: Calculating Settlements using internal data SIBR: Scheduling Infrastructure Business Rules (EIM Application) SOW: Scope of Work SQMD: Settlement Quality Meter Data T+#B Trade Date plus (Number of business days) (eg. T+3B, T+8B, ect.) The Market Synonym used for EIM The System: Synonym used for application the SOW is created to address. UAT: User Acceptance Test (Contractor testing phase) UI: User Interface VER: Variable Energy Resources SP-2 Reserved SP-3 Reserved SP-4 Reserved SP-5 Small Business Enterprise (SBE) / Disabled Veteran Business **Enterprise (DVBE) Participation Program**

It is the policy of LADWP to provide SBEs, DVBEs, Emerging Business Enterprises (EBEs), Women-Owned Business Enterprises (WBEs), Minority-Owned Business Enterprises (MBEs), Disadvantaged Business Enterprises (DBEs), Lesbian, Gay,

Bisexual, or Transgender Business Enterprise (LGBTBEs), and Other Business Enterprises (OBEs) an equal opportunity to participate in the performance of all LADWP contracts. LADWP's overall annual SBE and DVBE participation goals are set at 25 percent and 3 percent, respectively. The bidder shall assist LADWP in implementing this policy by taking all reasonable steps to ensure that all available business enterprises, including SBEs, DVBEs, EBEs, WBEs, MBEs, DBEs, and LGBTBEs have an equal opportunity to compete for and participate in the LADWP contracts.

SP-6 Reserved

SP-7 Reserved

SP-8 Reserved

SP-9 Reserved

SP-10 **Labor Laws**

The successful proposer and the proposer's agents, employees, and subcontractors shall comply with all applicable provisions of the Labor Code and all federal, state, and local laws and regulations which affect the hours of work, wages, and other compensation of employees, nondiscrimination, and other conduct of the work.

Workers shall be paid not less than prevailing wages pursuant to determinations of the Director of Industrial Relations, where applicable. To get the most current information on effective determination rates, the proposer shall contact:

DEPARTMENT OF INDUSTRIAL RELATIONS DIVISION OF LABOR STATISTICS AND RESEARCH P.O. BOX 420603

SAN FRANCISCO CA 94142-0603

Telephone (Division Office): (415) 703-4780

Telephone (Prevailing Wage Unit): (415) 703-4774

Web: http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm

Penalties prescribed by the Labor Code for violations shall be forfeited to LADWP.

SP-11 Reserved

SP-12 Reserved

SP-13 Conflicts of Interest

Consultant will not accept any other contract during the term of the Agreement from any other party if such other contract could represent, or could lead to a conflict of interest between LADWP, Consultant, or the other party.

Any subcontract entered into pursuant to the terms of this Agreement shall be subject to, and shall incorporate, the provisions of this Article.

SP-14 Reserved

SP-15 Background Check Certification Requirement

The Consultant shall (1) perform the required background checks of all designated principals, employees and/or Subconsultants of the Consultant; and (2) not assign principals, employees and/or Subconsultants of the Consultant convicted of any felony or offense of moral turpitude, or for whom other derogatory information has been found pursuant to criteria set forth in this Agreement or any attachment hereto (including, without limitation, Background Check Certification) shall result in irreparable harm to LADWP and, at LADWP's option, the immediate termination for breach of contract without opportunity to cure, without liability on the part of LADWP.

Consultant agrees to submit a statement along with any invoices or billing associated with this Agreement which certifies that all work performed under this Agreement at critical facilities as designated by LADWP to Consultant was conducted by persons for whom background checks have been conducted and who do not have disqualifying background information in their histories pursuant to this section.

Consultant is advised that submission of a false claim for payment to LADWP may subject Consultant to liability under the California False Claims Act (Cal. Gov't Code Sec. 12650 *et seq.*). In addition, any failure to comply with the background procedures as required by this section may be considered in connection with future contracting opportunities with LADWP. The following specific language in the invoices/bills is acceptable: "Consultant certifies that all work performed for which this invoice/bill is submitted which required access to critical facilities as designated by LADWP was performed by persons for whom background checks have been conducted, and for whom no disqualifying information (including felonies, offenses of moral turpitude, and other disqualifying criteria, if any, as specified in the Agreement between Consultant and LADWP) has been found."

None of the remedies available to LADWP under this section shall preclude LADWP from any other remedies available in law or equity to compensate it for damages caused by the Consultant's failure to comply with this section.

SP-16 Confidentiality

All documents, records, and information provided by LADWP to the Consultant, or accessed or reviewed by the Consultant, during performance of this Agreement shall remain the property of LADWP. All documents, records and information provided by LADWP to the Consultant, or accessed or reviewed by the Consultant during performance of this Agreement, are deemed confidential. The Consultant agrees not to provide these documents and records, nor disclose their content or any information contained in them, either orally or in writing, to any other person or entity. The Consultant agrees that all documents, records, or other information used or reviewed in connection with the Consultant's work for LADWP shall be used only for the purpose of carrying out LADWP business and cannot be used for any other purpose. The Consultant shall be responsible for protecting the confidentiality and maintaining the security of LADWP documents, records, and information in its possession.

Document Access/Control

- A. The Consultant shall make the confidential information provided by LADWP to the Consultant, or accessed or reviewed by the Consultant during performance of this Agreement, available to its employees, agents and /or Subconsultants, only on a need-to-know basis. Further, the Consultant shall provide written instructions to all of its employees, agents and Subconsultants with access to the confidential information about the penalties for its unauthorized use or disclosure.
- B. The Consultant shall store and process confidential information in an electronic format in such a way that unauthorized persons cannot retrieve the information by computer, remote terminal or other means.
- C. The Consultant shall not remove documents, records, or information used or reviewed in connection with the Consultant's work for LADWP from LADWP facilities without prior approval from LADWP. The Consultant shall not use, other than in direct performance of work required pursuant to the Agreement, or make notes of any home address or home telephone numbers contained in personnel or customer files, confidential information, documents, or records provided by LADWP that are reviewed during work on this Agreement.
- D. With prior written approval from LADWP, the Consultant may make copies of such documents, written materials, notes, documents, confidential information, or other information, as necessary to perform its duties under this Agreement.

- E. The Consultant shall document and immediately report to LADWP any unauthorized use or disclosure of confidential information as defined in Article 7.1.
- F. The Consultant shall require that all its employees, agents, and Subconsultants who shall, or may, review, be provided, or have access to LADWP data, information, personnel or customer files, confidential information, documents, or records during the performance of this Agreement, execute a confidentiality agreement that incorporates the provisions of this Article VII, Confidentiality and Restrictions on Disclosure prior to performing work under this Agreement.
- G. The provisions of this Article VII, Confidentiality and Restrictions on Disclosure shall survive termination and expiration of this Agreement.

SP-17 Security Policy and Requirements

The Consultant is required to adhere to all physical and cyber-related security policies, standards, requirements and procedures (collectively, "Security Requirements"), applicable to the project. All Consultant personnel, equipment, products, services, and Subconsultants involved with the work must adhere to all applicable Security Requirements throughout the duration of the Agreement or any extensions or amendments thereof. Security Requirements may be imposed by LADWP policy, or by Federal, State or Local laws, regulations or industry practices, including, without limitation, requirements that may be imposed by the Federal Energy Regulatory Commission (FERC), the North American Electric Reliability Corporation (NERC), the Western Electricity Coordinating Council (WECC) the Department of Energy (DOE), the Environmental Protection Agency (EPA), and the Department of Homeland Security (DHS).

Inability to meet the Security Requirements may be considered when evaluating the Consultant for consideration and award, including extensions or amendments to existing agreements. As security regulations and practices change over time, amendments and extensions to existing agreements may include additional Security Requirements not present in earlier agreements.

SP-18 Reserved

SP-19 Reserved

SP-20 Data Security

The Contractor shall implement appropriate measures designed to ensure the confidentiality and security of Protected Information (private and confidential), protect

against any anticipated hazards or threats to the integrity or security of such information, protect against unauthorized access or disclosure of information, and prevent any other action that could result in substantial harm to the LADWP or an individual identified with the data or information in the Contractor's custody.

END OF SPECIAL PROVISIONS

EXHIBIT C Fee Schedule

The Fee Schedule of the successful Contractor will be incorporated here.				

EXHIBIT D Allowable Travel Expenses

[NOTE: These rates are as of January 1, 2018]

Expenses for transportation, lodging, subsistence and related items incurred by consultants employed by the Los Angeles Department of Water and Power will be subject to the "50-mile" rule. Under this rule, travel reimbursements will be made only if the destination is farther than 50 miles from the Consultant personnel's field or office location to the LADWP work site. Any such travel shall be pre-approved by LADWP and shall be in accordance with the guidelines of this Exhibit D.

All expenditures over \$25 require documentation in the form of an original detailed receipt with the exception of per diem meals. However, receipts for expenditures under \$25 may be requested by the City Controller. No additional mark-up on consultant or subconsultant expenses will be allowed.

LADWP will reimburse the Consultant for expenses that include, but not limited to:

1.0 Airfare:

Airfare is limited to coach class only. An itinerary is not acceptable in and of itself. Original receipts for airfare must be submitted. Purchase of a refundable ticket, which is usually more expensive than a non-refundable ticket, must be approved by the LADWP Contract Administrator identified in the Agreement.

2.0 Car Rental:

Car rental is limited to mid-size or smaller car. The expense of navigation and insurance will not be reimbursed. Original receipts for car rental and fuel costs must be submitted. Travelers shall fill the gas tank before returning car to avoid fuel surcharges that are not reimbursable.

3.0 Per Diem Allowances – Meals:

- 3.1 A meal allowance rate is established for domestic travel and will include incidental expenses.
- 3.2 The meal allowance rate for domestic travel is \$64 per day for a full day of travel, which includes taxes and reasonable and customary gratuities not to exceed 15 per cent. On the first and last day of travel flight itinerary will be required if the full meal rate is requested.
- 3.3 Meal and incidental allowance will be prorated at 75% (\$48) of the daily allowance as follows:

- 3.3.1 On the first and last day of travel depending on departure/arrival time:
 - 3.3.1.1 The partial meal rate will be paid on the first day of travel for departure times after 2 pm.
 - 3.3.1.2 The partial meal rate will be paid on last day of travel for arrival times prior to 2 pm.
 - 3.3.1.3 When some meals are provided as part of the conference/event.

(**NOTE:** No meal allowance will be provided when all meals are provided throughout the day by the host or as part of an event/conference.)

3.4 Meal Receipts

3.4.1 Meal receipts are no longer required when claiming the meal allowance. If receipts are provided, the actual amount if less than allowance will be reimbursed.

EXCEPTIONS:

- Receipts are required for grant funded travel where the grantor requires complete documentation of travel expenses; and
- 2) Receipts are required of single meals that cost more than \$25.

4.0 Per Diem Allowance – Hotel/Lodging:

- 4.1 Since the expense limit varies by county, the expense limit shall be pre-approved by the LADWP Contract Administrator identified in the Agreement for travel by the Consultant to an approved worksite outside of Los Angeles County.
- 4.2 Zero balance receipt is required. The receipt must include the pre-printed hotel name and address. Lodging expenses up to a maximum limit of \$173.00 per day (Los Angeles County). This should include taxes and tips. Tips and gratuities shall not exceed 15%, where reasonable and customary.
- 4.3 Meals and lodging are reimbursable only on working days as reported on timesheets, and payments are subject to the approval of the LADWP Contract Administrator identified in the Agreement.

5.0 Mileage:

Mileage for non-rental car travel will be paid at the standard mileage rate established by the Internal Revenue Service in effect at the time of travel. A Map Quest or similar routing tool is required to document miles driven. The mileage will be calculated using the shortest route. As of January 1, 2018, the reimbursement rate is fifty-four and one-half cents (\$0.545) per mile.

EXHIBIT E List of Subconsultants

The following Subconsultants are authorized to work on the Project:

Name	Special Expertise of Firm	Anticipated Service/Task Responsibilities	Location	Firm Type (SBE/DVBE)	Anticipated Compensation*

^{*} Subconsultant participation is estimated and may be modified to reflect actual services requested.

EXHIBIT FList of Key Consultant Personnel

The following people are designated as Consultant's Key Personnel:

Name	Project Position	Labor Category	Location	Special Expertise	No. of Years Employed by Consultant/ Experience

[Note: all Labor categories listed should also appear on Exhibit C Fee Schedule. Any Subconsultant personnel who are key to the Project should also be included in this Exhibit]

EXHIBIT G Contract Insurance Requirements

The Contract Insurance Requirements contained as Appendix J to the RFP will be incorporated here.

EXHIBIT H Statement of Work

The Statement of Work from the RFP will be incorporated here.

EXHIBIT I Background Check Certification

The Background Check Certification form contained as Appendix N to the RFP will be incorporated here.

EXHIBIT J Confidentiality Agreement for LADWP Proprietary Information

The Confidentiality Agreement for LADWP Proprietary Information contained as Appendix O to the RFP will be incorporated here.

EXHIBIT KSafety Compliance Certificate

The Safety Compliance Certificate contained as Appendix P to the RFP will be incorporated here.

EXHIBIT L Project Payment Schedule

The Project Payment Schedule contained as Appendix S to the RFP will be incorporated here.

This Source Code Escrow Agreement ("Escrow Agreement") is entered into among The
Los Angeles Department of Water & Power ("the LADWP"), having a place o
business at 111 N. Hope Street, Los Angeles, CA 90012-5701, and
corporation having a place of business at
("Contractor"), and
having a place of business at ("Escrow Agent").

Recitals

Concurrent with the execution of this Escrow Agreement the LADWP and Contractor are entering into an Agreement for Information Technology Products & Services (the "License Agreement") pursuant to which Contractor has licensed to the LADWP the right to use the Software (as defined in the License Agreement) and related documentation. The License Agreement requires Contractor and the LADWP to enter into an escrow agreement which provides for Contractor's deposit of certain escrow materials with an escrow agent, and, under certain circumstances for release of such escrow materials to the LADWP.

Now, Therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

Agreement

- 1. <u>Definition of Escrow Materials</u>. Capitalized terms used in this Escrow Agreement and not defined herein shall have the meanings assigned to them in the License Agreement. The Escrow Materials to be stored by the Escrow Agent consist of one (1) copy of all existing annotated Source Code listings, flow charts, decision tables, schematics, drawings, Specifications, documentation, design details, and other related documents which pertain to the Software and all technology necessary to understand the design, structure, and implementation of the Software and to maintain, support and build the executable object code of the Software (including, but not limited to, any tools which may or not be commercially available) such that a third party programmer reasonably skilled in the language used in such materials could maintain and support the Software without further assistance or references to other materials (collectively, the Escrow Materials"). Such Escrow Materials shall also include any Updates of such Software (as such term is defined in the License Agreement) made available to the LADWP pursuant to Section 20 ("Maintenance and Support") of the Agreement
- 2. <u>Deposit</u>. Within five (5) days of the LADWP's acceptance of the Software in accordance with Section 7 ("Delivery, Inspection, Acceptance and Rejection") of the License Agreement, Contractor shall deliver to the Escrow Agent a sealed package certified by an authorized officer of Contractor to contain a complete set of the Escrow Materials as defined in Section 1 ("Definition of Escrow Materials") hereof, for such accepted Software (a "Deposit"). In addition to the foregoing, within thirty (30) days of any Updates to the LADWP pursuant to Section 7 ("Delivery, Inspection, Acceptance and Rejection"), Contractor shall deliver the Source Code to such Updates for the Software (a "Maintenance Deposit") to the Escrow Agent.

- 3. Receipt by Escrow Agent. Contractor shall furnish to the Escrow Agent a packing list in triplicate describing each Deposit made hereunder. The Escrow Agent shall issue a receipt for all Escrow Materials received and forward copies of such receipts and packing lists to both the LADWP and Contractor.
- 4. <u>Storage of Materials; Inspection</u>. The Escrow Agent shall establish under its control a receptacle for the purpose of storing the Escrow Materials in safekeeping in an appropriate physical facility and shall allow the inspection of the Escrow Materials by the LADWP to confirm that the deposit is complete and will compile into the same version of the Object Code of the Software accepted by the LADWP pursuant to **Section 7** ("Delivery, Inspection, Acceptance and Rejection") of the License Agreement. Any such inspection shall be in the presence of an authorized representative of Escrow Agent. the LADWP shall provide Contractor with ten (10) days' notice of any requested inspection and Contractor shall have the right to attend such inspection, at its option. Access to the Escrow Materials shall be permitted to authorized representatives of Escrow Agent to the extent necessary for Escrow Agent to perform its obligations pursuant to this Escrow Agreement.
- **5.** Records. Escrow Agent agrees to keep complete written records of the activities undertaken, and materials prepared and delivered to Escrow Agent, pursuant to this Escrow Agreement. Contractor or the LADWP shall be entitled at reasonable times, during normal business hours, and upon reasonable notice to Escrow Agent, during the term of this Escrow Agreement to inspect the records of Escrow Agent with respect to the Escrow Materials.
- **6.** <u>Term.</u> This Escrow Agreement shall be perpetual and shall not terminate upon termination of the License Agreement.
- 7. <u>Default by Contractor</u>. The following events shall constitute events of default by Contractor which give the LADWP the right to receive a single copy of the Escrow Materials from the Escrow Agent pursuant to <u>Paragraph 8</u> ("Delivery of Escrow Materials to the LADWP") hereof:
 - (a) Contractor breaches its warranty in **Section 21 ("Warranties")** of the License Agreement or fails to meet its obligations set forth in **Section 20** ("**Maintenance and Support")** for more than ten (10) days.
 - (b) Contractor becomes insolvent, or files or has filed against it any proceeding in bankruptcy or for reorganization under any federal bankruptcy law or similar state law, or has any receiver appointed for all or a substantial part of Contractor's assets or business, or makes any assignment for the benefit of its creditors, or enters into any other proceeding for debt relief;
 - (c) Contractor ceases to do business or institutes any proceedings for the liquidation or winding up of its business or for the termination of its corporate charter;

- (d) Contractor ceases to be actively engaged in its usual line of business; or
- **8.** <u>Delivery of Escrow Materials to the LADWP</u>. Escrow Agent agrees, and is hereby specifically authorized, to provide the Escrow Materials to the LADWP immediately upon written notice by the LADWP (a "Default Notice") that one or more of the default events defined in <u>Paragraph 7</u> ("Default by Contractor") has occurred.
- **9. Bankruptcy.** Contractor and the LADWP acknowledge that this Escrow Agreement is an "agreement supplementary to" the License Agreement as provided in Section 365(n) of Title 11, United States Code (the "Bankruptcy Code"). Contractor acknowledges that if Contractor, as a debtor in possession or a trustee in bankruptcy in a case under the Bankruptcy Code, rejects the License Agreement or this Escrow Agreement, the LADWP may elect to retain its rights under the License Agreement and this Escrow Agreement as provided in Section 365(n) of the Bankruptcy Code. Upon written request of the LADWP to Contractor or the Bankruptcy Trustee, Contractor or such Bankruptcy Trustee shall not interfere with the rights of the LADWP as provided in the License Agreement and this Escrow Agreement, including the right to obtain the Escrow Materials.
- 10. License Grant for Use of Escrow Materials Confidentiality; Liability for Disclosure. In the event that the LADWP obtains the Escrow Materials pursuant to the terms hereof, the LADWP agrees that it will disclose the Escrow Materials only to employees and consultants of the LADWP who have a need-to-know and need access to the Escrow Materials to perform their duties. the LADWP may make a reasonable number of copies of the Escrow Materials for backup and archival purposes. Such Escrow Materials shall be considered the Confidential Information of Contractor for purposes of Section 18 ("Confidential Information and Source Code Escrow") of the License Agreement.
- 11. <u>Delivery Site</u>. Delivery of the Escrow Materials to the LADWP, or return of the Escrow Materials to Contractor, shall be at the offices of the Escrow Agent at ______, unless special delivery instructions concerning delivery elsewhere are furnished to the Escrow Agent by the party authorized hereunder to receive the Escrow Materials.
- 12. Obligations of Escrow Agent. The Escrow Agent shall be responsible only for the acceptance, storage, and delivery of the Escrow Materials in accordance with the terms of this Escrow Agreement and for the exercise of due diligence in accordance with the high level of care accorded fiduciary obligations; shall have no obligation or responsibility to verify or determine that the Escrow Materials deposited with Escrow Agent by Contractor do, in fact, consist of those items which Contractor is obligated to deliver under this Escrow Agreement; shall bear no responsibility whatsoever to determine the existence, relevance, completeness, currency, or accuracy of the Escrow Materials; and shall be entitled to act in good faith reliance upon any written instruction, instrument, or signature believed in good faith to be genuine and to assume in good faith that any

person purporting to give any writing, notice, advice, or written instruction in connection with, or relating to, this Escrow Agreement has been duly authorized to do so.

- In the event that Escrow Agent is, for any reason, uncertain of its obligation to deliver the Escrow Materials to the LADWP pursuant to Paragraph 8
 ("Delivery of Escrow Materials to the LADWP"), it shall deliver such materials and it shall initiate an arbitration pursuant to Paragraph 13
 ("Arbitration") to resolve such uncertainty. In the event the arbitrator determines that the Escrow Materials should not have been delivered to the LADWP, the LADWP shall return the original Escrow Materials to the Escrow Agent and certify in writing that it has destroyed any copies of such Escrow Materials. Except as expressly provided in this Escrow Agreement, Escrow Agent agrees that it will not divulge or disclose or otherwise make available to third parties whatsoever, or make any use whatsoever, of the Escrow Materials, or any information deposited with it by Contractor in connection with this Escrow Agreement, without the express prior written consent of Contractor.
- 13. <u>Arbitration</u>. Subsequent to the Escrow Agent's delivery of the Escrow Materials to the LADWP pursuant to <u>Paragraph 8</u> ("Delivery of Escrow Materials to the LADWP"), if any dispute arises concerning the delivery of the Escrow Materials to the LADWP by Escrow Agent, such dispute shall be settled by arbitration before a single arbitrator selected in accordance with the rules of the American Arbitration Association, to take place in Los Angeles County, California, within thirty (30) days following the LADWP's delivery of a Default Notice to Escrow Agent pursuant to <u>Paragraph 8</u> ("Delivery of Escrow Materials to the LADWP"), in accordance with the then-prevailing rules of the American Arbitration Association. No discovery will be permitted. The arbitrator shall be instructed to render his or her award in writing within fifteen (15) days after the end of the hearing, and judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof.
- 14. <u>Indemnity</u>. Contractor and the LADWP jointly and severally agree to defend and indemnify Escrow Agent and to hold Escrow Agent harmless from and against any and all claims, actions and suits, whether groundless or otherwise, and from and against any and all liabilities, losses, damages, costs, charges, penalties, counsel fees, and any other expense of any other nature, including, without limitation, settlement costs incurred by Escrow Agent on account of any good faith act or omission of Escrow Agent, in respect of, or with regard to, this Escrow Agreement except as to the obligations of Escrow Agent specified in <u>Paragraph 4</u> ("Storage of Materials; Inspection") and <u>Paragraph 12</u> ("Obligations of Escrow Agent") hereof.
- 15. <u>Compensation</u>. The Escrow Agent shall be compensated as set forth on **Schedule 1** ("Fee Schedule") attached hereto. The fees set forth in **Schedule 1** ("Fee Schedule") are for Escrow Agent's ordinary services as escrow holder. In the event Escrow Agent is required to perform any additional or extraordinary services as a result of being escrow holder, including intervention in any litigation or proceeding, Escrow Agent

shall receive, upon prior written approval of the parties responsible for payment of Escrow Agent's expenses, reasonable compensation for such services and be reimbursed for such costs incurred, including reasonable attorneys' fees. All costs and expenses for establishing and maintaining the escrow including but not limited to Escrow Agent's compensation and expenses shall be borne by the LADWP.

- 16. <u>Discharge of Escrow Agent</u>. Escrow Agent may resign and be discharged from its duties or obligations hereunder by giving notice in writing of such resignation to Contractor and the LADWP specifying a date when such resignation shall take effect, which date shall be at least sixty (60) days after the date of receipt of such notice. Prior to the effective date of such resignation, with the prior written consent of the LADWP, which shall not be unreasonably withheld, Contractor shall arrange for the services of a new escrow agent, and Contractor and the LADWP agree to execute and deliver another escrow agreement with such new escrow agent having substantially the same terms as this Escrow Agreement. Upon Contractor notifying Escrow Agent of the name and address of the new escrow agent, Escrow Agent agrees to forward the Escrow Materials to such new escrow agent provided that Escrow Agent has received payment for its fees and costs pursuant to <u>Paragraph 15</u> ("Compensation").
- **17.** <u>Modification</u>. These escrow instructions are irrevocable except as they may be revoked or modified by written consent of the LADWP, Contractor and the Escrow Agent, jointly.
- **18. Governing Law.** This Escrow Agreement shall be construed and interpreted in accordance with the laws of the State of California.
- **19. Notices.** All notices required by this Escrow Agreement shall be sufficiently given:
 - (a) upon delivery, if given in person with a signed receipt;
 - (b) if given by facsimile transmission, upon acknowledgment of receipt of electronic transmission; or
 - (c) if given by registered or certified mail (air mail if international), postage prepaid, return receipt requested, five days after deposit in the mail in accordance with the provisions hereof. All such notices shall be addressed as follows:

If to the LADWP:

Los Angeles Department of Water and Power [Name]

Contract Administrator

111 North Hope Street, Room _____
Los Angeles, California 90012-2694

With a Copy To:

Chief Assistant City Attorney 111 North Hope Street Los Angeles, California 90012-2694

If to Contractor:

If to Escrow Agent:

or to such other person or address as the parties may from time to time designate in a writing delivered pursuant to this **Paragraph 19** ("**Notices**").

- **20. Severability.** In the event that any provision of this Escrow Agreement shall be unenforceable or invalid under any applicable law or be so held by applicable court or arbitration decision, such unenforceability or invalidity shall not render this Agreement unenforceable or invalid as a whole, and, in such event, such provision shall be changed and interpreted so as to best accomplish the objectives of such unenforceable or invalid provision within the limits of applicable law or applicable court decisions.
- **Maiver.** The failure of any party hereto to require performance by another party of any provision hereof shall not affect the full right to require such performance at any time thereafter, nor shall the waiver by any party of a breach of any provision hereof by any other party be taken or held to be a waiver of the provision itself.
- **22.** <u>Counterparts.</u> This Escrow Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument.
- 23. <u>Survival</u>. The following provisions shall survive any termination of this Agreement or partial termination of this Agreement with respect to a portion of the Escrow Materials delivered pursuant to <u>Paragraph 8</u> ("Delivery of Escrow Materials to the LADWP"): <u>Paragraph 10</u> ("License Grant for Use of Escrow Materials; Confidentiality; Liability for Disclosure"), <u>Paragraph 13</u> ("Arbitration"), <u>Paragraph 14</u> ("Indemnity"), <u>Paragraph 18</u> ("Governing Law"), <u>Paragraph 19</u> ("Notices"), <u>Paragraph 20</u> ("Severability"), <u>Paragraph 21</u> ("Waiver"), Paragraph 22 ("Counterparts") and <u>Paragraph 24</u> ("Entire Agreement").
- **24.** Entire Agreement. This Escrow Agreement, together with any schedule hereto, and the License Agreement, constitute the entire agreement between the parties with respect to the subject matter hereof. This Escrow Agreement supersedes oral, written or other communications concerning the subject matter of this Escrow Agreement, and shall not be altered, amended, or modified except in a writing signed by the duly authorized officers of each party hereto.

IN WITNESS WHEREOF, the parties hereto have caused this Escrow Agreement to be executed as of the date and year hereinafter written.

CONTRACTOR:	Los Angeles Department of Water and Power
Ву:	By:
Title:	Title:
Date:	Date:
ESCROW AGENT: [NAME]	
Ву:	
Title:	
Date:	

EXHIBIT N Contractor's Quality Assurance Program

The Contractor's Quality Assurance Program will be incorporated here.

EXHIBIT O Background Technology

Background Technology will be incorporated here.

EXHIBIT P Technical Response

Technical Response will be incorporated here.

EXHIBIT Q Invoice Criteria

Los Angeles Department of Water and Power

Note: Any fee payments made in excess of fees actually owed to contractor are null and void, shall be deducted from future fee payments and/or retention, and may result in liability for damages for presenting false claims.

INVOICE PREPARATION CHECKLIST

Any "NO" answers may result in the delay of payment

		<u>YES</u>	<u>NO</u>
1.	Are you sending your invoice to: (unless other specific instructions appear on your Purchase Order [PO]) Accounts Payable Business Unit Los Angeles Department of Water and Power City of Los Angeles PO Box 51211, Room 424 Los Angeles, CA 90051-5511 (NOTE: Delivery slips and invoices delivered with goods will not initial	ate payment)	
2.	Is your firm's invoice name exactly the same as on the PO/SPO?		
3.	Does your invoice, delivery slip, credit memo, or correspondence have a. Your correct vendor number? b. The correct PO/SPO number? c. Your Business Tax Registration Certificate Number or Vendor Requisition Number?		
4.	Have all materials/services been delivered?		
5.	Do invoice prices and quantities agree with the PO/SPO?		
6.	Does each billed item indicate the corresponding number on the PO/SPO? (Payment will not be made for any item or charges such as freight, restocking, etc. if not specifically allowed for in the PO.)		
7.	If freight charges are authorized in the PO, are you, and not the freight company, billing for the charges?		
8.	Are all taxes stated separately? (DWP is not exempt from payment of sales tax. Out-of-State vendor: Please indicate if California sales/use tax should be paid directly to the State of California.)		
9.	Is your invoice submitted in accordance with contract terms?		
10.	Does your invoice number appear on any credit memo?		

EXHIBIT R Prior Work Product

EXHIBIT S Hardware Maintenance

"Hardware Maintenance" shall consist of:

- The LADWP may, from time to time contact Contractor by telephone or e-mail to consult with Contractor regarding the operation of the Hardware and notify Contractor of any Hardware Errors.
- If the Contractor wishes to inspect any Hardware with Errors, the LADWP may, if so requested, return such Hardware to Contractor (at Contractor's risk and expense), or if the foregoing is not reasonable in the LADWP's judgment, the LADWP may require the Contractor to come to the LADWP's facility to make such inspection. In any case, such inspection shall be carried out no later than one (1) day from notice of any Hardware Errors.

Hours and Facilities. Contractor shall make Hardware Maintenance available during the LADWP's normal business days and normal business hours.

EXHIBIT T Software Maintenance

- "Software Maintenance" shall consist of the following:
 - The LADWP's Designated Employees may, from time to time contact Contractor by telephone or e-mail to consult with Contractor regarding the operation of the Software and any Error.
 - The LADWP's Designated Employees shall provide to Contractor all documentation and related information with respect to each Error, and Contractor shall examine same.
 - Contractor shall use its most diligent efforts to correct such Errors by providing Updates to the Softwa re, and shall provide conforming Software to the LADWP promptly thereafter.
- Contractor shall make Software Maintenance available during the LADWP's normal business days and normal business hours.
- For purposes of this Exhibit R ("Software Maintenance"), Errors shall be classified as follows:
 - "Level 1 Errors" shall mean Errors which cause a significant impact in the LADWP's ability to deliver water or power to customers.
 - "Level 2 Errors" shall mean Errors which cause a significant impact upon the LADWP's information technology system, but does not impair the LADWP's ability to deliver water or power to customers.
 - "Level 3 Errors" shall mean Errors which are not Level 1 Errors or Level 2
 Errors.
- Contractor shall use its most diligent efforts to respond to and acknowledge Errors as follows:
 - Level 1 Errors: The LADWP shall report Level 1 Errors to Contractor using an
 external call logging service. Contractor shall use its diligent efforts to respond
 and acknowledge such notice by telephone, email or fax within four (4) hours of
 receipt. Contractor will promptly thereafter assemble a team of Contractor
 engineers to provide corresponding Software Maintenance (and will do so
 outside of normal business days as necessary), and shall inform the LADWP of
 the contact information for the leader of such team.
 - Level 2 Errors: The LADWP shall report Level 2 Errors to Contractor by email. Contractor shall respond and acknowledge such notice promptly.
 - Level 3 Errors: The LADWP shall report Level 3 Errors to Contractor by email. Contractor shall respond and acknowledge such notice promptly.

EXHIBIT U Right to Audit

The Contractor and the Contractor's subcontractors and suppliers shall be subject at any time with 7 calendar days prior written notice to audits by the Department or the Department's agents, collectively defined as "Authorized Auditors", relating to all billings and to verify compliance with all contract requirements relative to practices, methods, procedures, and documentation. The Authorized Auditors shall have access to all records and data relating to the contract. The audits will be performed using FAR, Part 30 and 31, et seq., generally accepted accounting practices and principles, and City Contractor Cost Guidelines, and any other applicable City, State and Federal government audit standards if any. The Contractor shall maintain and the Authorized Auditors will have the right to examine and audit all books, records, documents, accounting procedures and practices, and other evidence, regardless of form (e.g., machine readable media such as disk, tape, etc.) or type (e.g., databases, applications software, database management software, utilities, etc.), sufficient to properly reflect all costs claimed to have been incurred or anticipated to be incurred in performing the Contract. Any information provided on machine-readable media shall be provided in a format accessible and readable by the Authorized Auditors. The Contractor shall not, however, be required to furnish the Authorized Auditors with commonly available software. If the Contractor, the Contractor's subcontractors and/or suppliers are required to submit cost or pricing data in connection with the Contract and/or the Contract Amendment, the Authorized Auditors will have the right to examine all documents necessary to permit adequate evaluation of the cost or pricing data submitted, along with the computations and projections used. The Authorized Auditors will also have the right to reproduce, photocopy, download, transcribe, and the like any such records. The Contractor shall make said evidence or to the extent accepted by the Authorized Auditors, photographs, micro-photographs etc. or other authentic reproductions thereof available to the Authorized Auditors at the Contractor's offices at all The Contractor and the Contractor's reasonable times and without charge. subcontractors and suppliers shall keep and preserve all such records for a period of not less than 3 years from and after Final Payment or, if the Contract is terminated in whole or in part, until 3 years after final Contract closeout.

The Contractor, the Contractor's subcontractors and suppliers shall account for and be responsible for unallowable costs and mutually agreed unallowable costs. The detail and depth of records required as backup support for proposals, billings, or claims shall be that which adequately establishes and maintains visibility of identified unallowable costs, costs directly associated to unallowable costs, and allowable costs.

All Changes are subject to audit. Changes with an absolute value of one hundred thousand (\$100,000) dollars or more shall require an audit. The City may waive the right to audit where there was adequate price competition, an established catalog or market prices for commercial items sold in substantial quantities to the public, and/or prices set by law or regulation.

The Contractor shall maintain and segregate cost and pricing data, books, records, documents, and any other accounting evidence sufficient to properly reflect all direct and indirect costs of whatever nature claimed to have been incurred or anticipated to be

EXHIBIT U Right to Audit

incurred by a Contract Amendment, including a change order.

For a period of 3 years from the date of Final Payment under the Contract, and prior to the execution of any Contract Amendment that exceeds an absolute value of one hundred thousand dollars (\$100,000), the Authorized Auditors will have the right to examine all books, records, documents, and any other applicable data or evidence that relate to the negotiation and/or performance of the Contract and/or a contract amendment for the purpose of evaluating the accuracy and completeness of the cost or pricing data submitted by the Contractor. To the extent that the examination reveals inaccurate, incomplete, or non-current data, the data shall be considered defective; if the audit indicates the Contractor has been overpaid under a previous payment application, such overpayment, after 10 calendar days notice to the Contractor, shall be paid to the Department.

The Authorized Auditors may require that the Contractor supply appropriate documentation to support the costs or prices proposed for a Contract amendment, including a change order, and will refuse to complete negotiations until satisfactory documentation is submitted. The Contractor's books, records, documents and any other applicable data or evidence that relate to the negotiations and/or performance of the contract amendment shall be subject to audit and inspection.

Also subject to audit shall be the Contractor's records, books, documents and any other applicable data or evidence relating to those items on a billing that relates to:

- **a.** Work performed under the contract and/or a change order;
- **b.** Goods not yet incorporated into the work;
- **c.** Services or work performed under a contract amendment negotiated on an indefinite quantity basis; and
- **d.** Fixed-price change orders to validate the claimed percentage of completion on the payment application.

Notwithstanding the foregoing, if the audit reveals that the overpayment is more than 5% of the billing, the Contractor shall pay all expenses and costs incurred by the Authorized Auditors arising out of or related to the audit.