

**City and County of San Francisco
Public Utilities Commission
525 Golden Gate Ave
San Francisco, California 94102-4685**

Agreement between the City and County of San Francisco and APX Inc.

CS-344 Power Scheduling Coordination and Related Support Services

This Agreement is made this 16 day of June 2015, in the City and County of San Francisco, State of California, by and between: **APX Inc., 224 Airport Parkway, Suite 600, San Jose, CA 95110**, hereinafter referred to as "Contractor" or "APX," and the City and County of San Francisco, a municipal corporation, hereinafter referred to as "City" or "CCSF," acting by and through its Public Utilities Commission hereinafter referred to as SFPUC, collectively, "Parties".

Recitals

WHEREAS, the SFPUC wishes to hire a consultant to act as the Scheduling Coordinator for its generating units and loads, and assist staff with power trading services to optimize the SFPUC's short-term resource utilization and service to its loads; and,

WHEREAS, a Request for Proposal ("RFP") was issued on **July 8, 2014**, and City selected Contractor as the highest qualified scorer pursuant to the RFP; and

WHEREAS, Contractor represents and warrants that it is qualified to perform the services required by City as set forth under this Contract; and,

WHEREAS, approval for this Agreement was obtained when the Civil Service Commission approved Contract number **45401-13/14** on **March 3, 2014**;

Now, THEREFORE, the parties agree as follows:

1. Certification of Funds; Budget and Fiscal Provisions; Termination in the Event of Non-Appropriation. This Agreement is subject to the budget and fiscal provisions of the City's Charter. Charges will accrue only after prior written authorization certified by the Controller, and the amount of City's obligation hereunder shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. This Agreement will terminate without penalty, liability or expense of any kind to City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Agreement will terminate, without penalty, liability or expense of any kind at the end of the term for which funds are appropriated. City has no obligation to make appropriations for this Agreement in lieu of appropriations for new or other agreements. City budget decisions are subject to the discretion of the Mayor and the Board of Supervisors. Contractor's assumption of risk of possible non-appropriation is part of the consideration for this Agreement.

THIS SECTION CONTROLS AGAINST ANY AND ALL OTHER PROVISIONS OF THIS AGREEMENT.

2. Term of the Agreement. Subject to Section 1, the term of this Agreement shall be from the Effective Date to 12:00 AM on the fifth annual anniversary of the Effective Date.

3. Effective Date of Agreement. This Agreement shall become effective on the date (the "Effective Date") when the Controller has certified to the availability of funds and Contractor has been notified in writing.

4. Services Contractor Agrees to Perform. The Contractor agrees to use commercially reasonable efforts to perform the Services provided for in Appendix A, "Scheduling Coordinator and Related Services," and any Task Orders pursuant to Appendix C ("Task Order"). The Appendices are attached hereto and incorporated by reference as though fully set forth herein.

5. Compensation. Compensation to Contractor shall be made in monthly payments for work, as set forth in Section 4 of this Agreement and Appendix A and C that the General Manager of the SFPUC, in his or her sole discretion, concludes has been performed as of the last day of the immediately preceding month. In no event shall the compensation for Services set forth in Appendix A exceed Two Million, One Hundred Thousand Dollars (\$2,100,000) and the amount of this Agreement shall not exceed **Five Million Dollars (\$5,000,000)**. No charges shall be incurred under this Agreement for the Services set forth in Appendix A and C nor shall any payments become due to Contractor for such Services until reports, Services, or both, required under this Agreement are received from Contractor and approved by the SFPUC as being in accordance with this Agreement. City may withhold payment to Contractor in any instance in which Contractor has failed or refused to satisfy any material obligation provided for under this Agreement. In no event shall City be liable for interest or late charges for any late payments.

6. Guaranteed Maximum Costs. The City's obligation hereunder shall not at any time exceed the amount certified by the Controller for the purpose and period stated in such certification. Except as may be provided by laws governing emergency procedures, officers and employees of the City are not authorized to request, and the City is not required to reimburse the Contractor for, Commodities or Services beyond the agreed upon contract scope unless the changed scope is authorized by amendment and approved as required by law. Officers and employees of the City are not authorized to offer or promise, nor is the City required to honor, any offered or promised additional funding in excess of the maximum amount of funding for which the contract is certified without certification of the additional amount by the Controller. The Controller is not authorized to make payments on any contract for which funds have not been certified as available in the budget or by supplemental appropriation.

7. Payment; Invoice Format. Invoices furnished by Contractor under this Agreement must be in a form acceptable to the Controller, and must include a unique invoice number. All amounts paid by City to Contractor shall be subject to audit by City. Payment shall be made by City to Contractor at the address specified in the section entitled "Notices to the Parties."

8. Submitting False Claims; Monetary Penalties. Pursuant to San Francisco Administrative Code §21.35, any contractor, subcontractor or consultant who submits a false claim shall be liable to the City for the statutory penalties set forth in that section. A contractor, subcontractor or consultant will be deemed to have submitted a false claim to the City if the contractor, subcontractor or consultant: (a) knowingly presents or causes to be presented to an

officer or employee of the City a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by the City; (c) conspires to defraud the City by getting a false claim allowed or paid by the City; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to the City; or (e) is a beneficiary of an inadvertent submission of a false claim to the City, subsequently discovers the falsity of the claim, and fails to disclose the false claim to the City within a reasonable time after discovery of the false claim.

9. Reserved. (Disallowance)

10. Taxes.

a. With the exception of any Pass-Through Charges as defined in Appendix A Section 1.29, payment of any taxes, including possessory interest taxes and California sales and use taxes, levied upon Contractor's performance of this Agreement shall be the obligation of Contractor.

b. Contractor recognizes and understands that this Agreement may create a "possessory interest" for property tax purposes. Generally, such a possessory interest is not created unless the Agreement entitles the Contractor to possession, occupancy, or use of City property for private gain. If such a possessory interest is created, then the following shall apply:

1) Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that Contractor, and any permitted successors and assigns, may be subject to real property tax assessments on the possessory interest;

2) Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that the creation, extension, renewal, or assignment of this Agreement may result in a "change in ownership" for purposes of real property taxes, and therefore may result in a revaluation of any possessory interest created by this Agreement. Contractor accordingly agrees on behalf of itself and its permitted successors and assigns to report on behalf of the City to the County Assessor the information required by Revenue and Taxation Code section 480.5, as amended from time to time, and any successor provision.

3) Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that other events also may cause a change of ownership of the possessory interest and result in the revaluation of the possessory interest. (see, e.g., Rev. & Tax. Code section 64, as amended from time to time). Contractor accordingly agrees on behalf of itself and its permitted successors and assigns to report any change in ownership to the County Assessor, the State Board of Equalization or other public agency as required by law.

4) Contractor further agrees to provide such other information as may be requested by the City to enable the City to comply with any reporting requirements for possessory interests that are imposed by applicable law.

11. Payment Does Not Imply Acceptance of Work. The granting of any payment by City, or the receipt thereof by Contractor, shall in no way lessen the liability of Contractor to replace unsatisfactory work, equipment, or materials, although the unsatisfactory character of such work, equipment or materials may not have been apparent or detected at the time such payment was made. Materials, equipment, components, or workmanship that do not conform to the

requirements of this Agreement may be rejected by City and in such case must be replaced by Contractor without delay.

12. Qualified Personnel. Work under this Agreement shall be performed only by competent personnel under the supervision of and in the employment of Contractor. Contractor will use commercially reasonable efforts to comply with City's reasonable requests regarding assignment of personnel, but all personnel, including those assigned at City's request, must be supervised by Contractor. Contractor shall commit adequate resources to complete the project within the project schedule specified in this Agreement.

13. Responsibility for Equipment. City shall not be responsible for any damage to persons or property as a result of the use, misuse or failure of any equipment used by Contractor, or by any of its employees, even though such equipment be furnished, rented or loaned to Contractor by City.

14. Independent Contractor; Payment of Taxes and Other Expenses.

a. **Independent Contractor.** Contractor or any agent or employee of Contractor shall be deemed at all times to be an independent contractor and is wholly responsible for the manner in which it performs the Services and work requested by City under this Agreement. Contractor, its agents, and employees will not represent or hold themselves out to be employees of the City at any time. Contractor or any agent or employee of Contractor shall not have employee status with City, nor be entitled to participate in any plans, arrangements, or distributions by City pertaining to or in connection with any retirement, health or other benefits that City may offer its employees. Contractor or any agent or employee of Contractor is liable for the acts and omissions of itself, its employees and its agents. Contractor shall be responsible for all obligations and payments, whether imposed by federal, state or local law, including, but not limited to, FICA, income tax withholdings, unemployment compensation, insurance, and other similar responsibilities related to Contractor's performing Services and work, or any agent or employee of Contractor providing same. Nothing in this Agreement shall be construed as creating an employment or agency relationship between City and Contractor or any agent or employee of Contractor. Any terms in this Agreement referring to direction from City shall be construed as providing for direction as to policy and the result of Contractor's work only, and not as to the means by which such a result is obtained. City does not retain the right to control the means or the method by which Contractor performs work under this Agreement. Contractor agrees to maintain and make available to City, upon request and during regular business hours, accurate books and accounting records demonstrating Contractor's compliance with this section. Should City determine that Contractor, or any agent or employee of Contractor, is not performing in accordance with the requirements of this Agreement, City shall provide Contractor with written notice of such failure. Within five (5) business days of Contractor's receipt of such notice, and in accordance with Contractor policy and procedure, Contractor shall remedy the deficiency. Notwithstanding, if City believes that an action of Contractor, or any agent or employee of Contractor, warrants immediate remedial action by Contractor, City shall contact Contractor and provide Contractor in writing with the reason for requesting such immediate action.

b. **Payment of Taxes and Other Expenses.** Should City, in its discretion, or a relevant taxing authority such as the Internal Revenue Service or the State Employment Development Division, or both, determine that Contractor is an employee for purposes of

collection of any employment taxes, the amounts payable under this Agreement shall be reduced by amounts equal to both the employee and employer portions of the tax due (and offsetting any credits for amounts already paid by Contractor which can be applied against this liability). City shall then forward those amounts to the relevant taxing authority. Should a relevant taxing authority determine a liability for past services performed by Contractor for City, upon notification of such fact by City, Contractor shall promptly remit such amount due or arrange with City to have the amount due withheld from future payments to Contractor under this Agreement (again, offsetting any amounts already paid by Contractor which can be applied as a credit against such liability). A determination of employment status pursuant to the preceding two paragraphs shall be solely for the purposes of the particular tax in question, and for all other purposes of this Agreement, Contractor shall not be considered an employee of City. Notwithstanding the foregoing, Contractor agrees to indemnify and save harmless City and its officers, agents and employees from, and, if requested, shall defend them against any and all claims, losses, costs, damages, and expenses, including attorney's fees, arising from this section.

15. Insurance.

a. Without in any way limiting Contractor's liability pursuant to the "Indemnification" section of this Agreement, Contractor must maintain in force, during the full term of the Agreement, insurance in the following amounts and coverages:

1) Workers' Compensation, in statutory amounts, with Employers' Liability Limits not less than \$1,000,000 each accident, injury, or illness; and

2) Commercial General Liability Insurance with limits not less than \$1,000,000 each occurrence and \$2,000,000 general aggregate for Bodily Injury and Property Damage, including Contractual Liability, Personal Injury, Products and Completed Operations; and

3) Commercial Automobile Liability Insurance with limits not less than \$1,000,000 each occurrence, "Combined Single Limit" for Bodily Injury and Property Damage, including Non-Owned and Hired auto coverage, as applicable.

4) Errors and Omissions liability insurance, applicable to Contractor's profession, with limits not less than \$1,000,000 each claim with respect to negligent acts, errors or omissions in connection with the Services.

5) Technology Errors and Omissions Liability coverage, with limits of \$1,000,000 each occurrence and each loss, and \$2,000,000 general aggregate. The policy shall at a minimum cover professional misconduct or lack of the requisite skill required for the performance of services defined in the contract and shall also provide coverage for the following risks:

(a) Liability arising from theft, dissemination, and/or use of confidential information, including but not limited to, bank and credit card account information or personal information, such as name, address, social security numbers, protected health information or other personally identifying information, stored or transmitted in electronic form;

(b) Network security liability arising from the unauthorized access to, use of, or tampering with computers or computer systems, including hacker attacks; and

(c) Liability arising from the introduction of any form of malicious software including computer viruses into, or otherwise causing damage to the City's or third person's computer, computer system, network, or similar computer related property and the data, software, and programs thereon.

b. Commercial General Liability and Commercial Automobile Liability Insurance policies must be endorsed to provide:

1) Name as Additional Insured the City and County of San Francisco, its Officers, Agents, and Employees.

2) That such policies are primary insurance to any other insurance available to the Additional Insureds, with respect to any claims arising out of this Agreement, and that insurance applies separately to each insured against whom claim is made or suit is brought.

c. All policies shall be endorsed to provide thirty (30) days' advance written notice to the City of cancellation for any reason, intended non-renewal, or reduction in coverages. Notices shall be sent to the City address set forth in the Section entitled "Notices to the Parties."

d. Should any of the required insurance be provided under a claims-made form, Contractor shall maintain such coverage continuously throughout the term of this Agreement and, without lapse, for a period of three years beyond the expiration of this Agreement, to the effect that, should occurrences during the contract term give rise to claims made after expiration of the Agreement, such claims shall be covered by such claims-made policies.

e. Should any required insurance lapse during the term of this Agreement, requests for payments originating after such lapse shall not be processed until the City receives satisfactory evidence of reinstated coverage as required by this Agreement, effective as of the lapse date. If insurance is not reinstated, the City may, at its sole option, terminate this Agreement effective on the date of such lapse of insurance.

f. Before commencing any Services, Contractor shall furnish to City certificates of insurance and additional insured policy endorsements with insurers with ratings comparable to A-, VIII or higher, that are authorized to do business in the State of California, in form evidencing all coverages set forth above. Approval of the insurance by City shall not relieve or decrease Contractor's liability hereunder.

g. The Workers' Compensation policy(ies) shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.

16. Indemnification.

a. Indemnification by City. To the fullest extent permitted by law, City shall indemnify, defend and hold harmless each of Contractor, its affiliates and each of their respective agents, officers, directors, shareholders and employees (collectively, the "Contractor Indemnitees") from and against any and all losses, liabilities, damages, actions, claims, costs, and expenses, including reasonable fees and costs of counsel and experts (collectively, "Losses"), incurred in connection with claims arising from (a) City's use of the Services or (b) any gross negligence or willful misconduct by City, its affiliates or their respective agents, officers, directors,

shareholders or employees, while Contractor is engaged in the performance of Services, except to the extent such claim is caused by the gross negligence or willful misconduct of a Contractor Indemnitee.

Contractor shall notify City promptly in writing of any claim. City shall have sole control of the defense and all related settlement negotiations, and Contractor will provide City with all reasonably necessary assistance, information, and authority to perform the foregoing at City's expense.

b. Indemnification by Contractor. To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless each of City, its affiliates and each of their respective agents, officers, directors, shareholders and employees (collectively, "City Indemnitees"), from and against any and all Losses incurred in connection with claims arising from any gross negligence or willful misconduct by Contractor, its affiliates or their respective agents, officers, directors shareholders or employees arising from or related to the provision of any of the Contractor services, except to the extent such claim is caused by the gross negligence or willful misconduct of a City Indemnitee.

c. Contractor shall indemnify, defend and hold harmless the City Indemnitees from and against any and all Losses incurred in connection with any third party claims alleging a Service or deliverable infringes any third party's presently existing U.S. patent or copyright or constitutes misappropriation or unlawful use of a third party's trade secrets; provided that (i) City notifies Contractor promptly in writing of the claim; (ii) Contractor has the sole control of the defense and all related settlement negotiations; and (iii) City provides Contractor with all reasonably necessary assistance, information, and authority to perform the foregoing at Contractor's expense. In the event of such infringement of a third party's intellectual property right, or in Contractor's judgment such infringement is likely, Contractor shall have the right at its sole option and expense to remedy such infringement by (i) substituting or modifying such intellectual property so that there is no infringement while maintaining the quality and functionality of the original intellectual property; (ii) obtaining for City a license to continue using such intellectual property; or if neither (i) nor (ii) is commercially reasonable, Contractor shall have the right to terminate this Agreement immediately upon written notice to City, and City shall immediately cease its use of the applicable Service or deliverable and return any such applicable deliverable to Contractor. This Section 16(c) sets forth City's sole and exclusive remedy and Contractor's sole liability for intellectual property infringement by Contractor.

d. Notwithstanding the terms of Section 16(c) of this Agreement, Contractor will have no liability for any infringement claim of any kind to the extent it results from: (a) modifications to the deliverables or any Contractor software that enables any Service provided hereunder made other than by Contractor; (b) unauthorized or unlicensed use of the Service or deliverables; (c) the combination, operation or use of any deliverables or Service with equipment, devices or software not supplied by Contractor to the extent such a claim would have been avoided if the deliverable or Service was not used in such combination; (d) failure of City to use corrections or updated or modified deliverable(s) provided by Contractor to avoid infringement; (e) use of a deliverable or Service in violation of this Agreement; or (f) compliance by Contractor with designs, plans or specifications furnished by or on behalf of City.

17. **Limitations of Liability.** Except for claims related to each Party's indemnification obligations under Section 16 of this Agreement, fees due to Contractor hereunder, and amounts due to Contractor Section 20, Termination, each Party's maximum liability to the other Party for any and all claims related to or in connection with the Services provided hereunder shall not, in the course of any twelve (12) month period, exceed the lesser of the total amount paid or owed to Contractor by City under the applicable Appendix or Task Order during the six (6) month period preceding the event of liability or (ii) \$100,000.

NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL, PUNITIVE OR EXEMPLARY DAMAGES, WHETHER IN CONTRACT, TORT, STRICT LIABILITY STATUTORY LIABILITY OR OTHERWISE, ARISING OUT OF OR IN CONNECTION WITH THE DELIVERY OR USE OF THE SERVICES OR DELIVERABLES PROVIDED HEREUNDER, INCLUDING ANY LOSS OF PROFITS, EARNINGS, REVENUE, USE, DATA, CONTRACT, OR GOOD WILL, EVEN IF A PARTY HAS KNOWLEDGE OF THE POSSIBILITY OF SUCH DAMAGES.

City acknowledges that Contractor has set its prices and entered into this Agreement in reliance upon the limitations of liability and the disclaimers of warranties and damages set forth herein, and that the same form an essential basis of the bargain between the Parties. The Parties agree that the limitations and exclusions of liability and disclaimers specified in this Agreement will survive and apply even if found to have failed of their essential purpose.

18. **Reserved. (Liquidated Damages)**

19. **Default; Remedies.**

a. Each of the following shall constitute an event of default ("Event of Default") under this Agreement:

1) Either Party fails or refuses to perform or observe any material term, covenant or condition contained in any of the following Sections of this Agreement:

- | | |
|---|---------------------------------------|
| 8. Submitting False Claims; Monetary Penalties. | 36. Drug-free workplace policy |
| 10. Taxes | 51. Compliance with laws |
| 15. Insurance | 55. Protection of private information |
| 23. Proprietary or confidential information | |
| 29. Assignment | |

2) Either Party fails or refuses to perform or observe any other material term, covenant or condition contained in this Agreement, and such default continues for a period of thirty (30) days after the defaulting party receives written notice thereof from the other party.

3) City fails or refuses to pay invoices when due hereunder and such default continues for a period of ten (10) days after written notice thereof from Contractor to City.

4) Either Party (a) is generally not paying its debts as they become due, (b) files, or consents by answer or otherwise to the filing against it of, a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction, (c) makes an assignment for the benefit of its creditors, (d) consents to the appointment of a

custodian, receiver, trustee or other officer with similar powers of it or of any substantial part of its property or (e) takes action for the purpose of any of the foregoing.

5) A court or government authority enters an order (a) appointing a custodian, receiver, trustee or other officer with similar powers with respect to either Party or with respect to any substantial part of either Party's property, (b) constituting an order for relief or approving a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction or (c) ordering the dissolution, winding-up or liquidation of either Party.

b. On and after any Event of Default, the other Party shall have the right to exercise its legal and equitable remedies, including, without limitation, the right to terminate this Agreement or to seek specific performance of all or any part of this Agreement. In addition, either Party shall have the right (but no obligation) to cure (or cause to be cured) on behalf of the defaulting party any Event of Default; the defaulting party shall pay to the other Party on demand all costs and expenses incurred by the other Party in effecting such cure, with interest thereon from the date of incurrence at the maximum rate then permitted by law.

c. All remedies provided for in this Agreement may be exercised individually or in combination with any other remedy available hereunder or under applicable laws, rules and regulations. The exercise of any remedy shall not preclude or in any way be deemed to waive any other remedy.

20. Termination for Convenience.

a. City shall have the option, in its sole discretion, to terminate this Agreement, at any time during the term hereof, for convenience and without cause. City shall exercise this option by giving Contractor at least thirty (30) days written notice of termination. The notice shall specify the date on which termination shall become effective.

b. Upon receipt of the notice, Contractor shall commence and perform, with diligence, all actions necessary on the part of Contractor to effect the termination of this Agreement on the date specified by City and to minimize the liability of Contractor and City to third parties as a result of termination. All such actions shall be subject to the prior approval of City. Such actions shall include, without limitation:

1) Halting the performance of all Services and other work under this Agreement on the date(s) and in the manner specified by City.

2) Not placing any further orders or subcontracts for materials, services, equipment or other items.

3) Terminating all existing orders and subcontracts.

4) Subject to City's approval, which will not be unreasonably withheld, settling all outstanding liabilities and all claims arising out of the termination of orders and subcontracts.

5) Completing performance of any Services or work that City designates to be completed prior to the date of termination specified by City.

6) Taking such action as may be necessary, or as the City may reasonably direct, for the protection and preservation of any property related to this Agreement which is in the possession of Contractor and in which City has or may acquire an interest.

c. Upon termination of this Agreement, City shall immediately pay Contractor all outstanding and unpaid invoices. Within 30 days after the specified termination date, Contractor shall submit to City an invoice for all fees, costs (including costs associated with the cancellation of any orders and subcontracts), and expenses incurred by Contractor for Services rendered up to the effective date of termination, which shall set forth each of the following as a separate line item:

1) The fees for all Services and other work City directed Contractor to perform prior to the specified termination date, for which Services or work City has not already tendered payment. Contractor may also recover the reasonable cost of preparing the invoice.

2) A reasonable allowance for profit on the cost of the Services and other work described in the immediately preceding subsection (1), provided that Contractor can establish, to the reasonable satisfaction of City, that Contractor would have made a profit had all Services and other work under this Agreement been completed, and provided further, that the profit allowed shall in no event exceed 5% of such cost.

3) The reasonable cost to Contractor of handling material or equipment returned to the vendor, delivered to the City or otherwise disposed of as directed by the City.

4) A deduction for the cost of materials to be retained by Contractor, amounts realized from the sale of materials and not otherwise recovered by or credited to City, and any other appropriate credits to City against the cost of the Services or other work.

d. In no event shall City be liable for costs incurred by Contractor or any of its subcontractors after the termination date specified by City, except for those costs specifically enumerated and described in the immediately preceding subsection (c).

e. In arriving at the amount due to Contractor under this Section, City may deduct all payments previously made by City for work or other Services covered by Contractor's final invoice.

f. City's payment obligation under this Section shall survive termination of this Agreement.

g. At City's direction, Contractor shall use commercially reasonable efforts to assign all rights, obligations and interests to City under any third party agreements entered into by Contractor at the request of the City and solely for services provided to City under the terms of this Agreement or terminate such third party agreements. If any such third party agreement cannot be cancelled, terminated or assigned to City upon termination of this Agreement, such third party agreement shall continue in effect in accordance with its terms, and City shall pay all costs, expenses and fees incurred by Contractor on behalf of City in completing the terms and conditions of such third party agreements.

21. Rights and Duties upon Termination or Expiration.

This Section and the following Sections of this Agreement shall survive termination or expiration of this Agreement:

8.	Submitting false claims	26	Works for Hire
10.	Taxes	27.	Audit and Inspection of Records
11.	Payment does not imply acceptance of work	46.	Modification of Agreement.
13.	Responsibility for equipment	47.	Administrative Remedy for Agreement Interpretation.
14.	Independent Contractor; Payment of Taxes and Other Expenses	48.	Agreement Made in California; Venue
15.	Insurance	49.	Construction
16.	Indemnification	50.	Entire Agreement
17.	Limitations of Liability	54.	Severability
23	Proprietary or confidential information	55.	Protection of private information
25	Ownership of Results	61.	Representations and Warranties

Subject to the immediately preceding sentence, upon termination of this Agreement prior to expiration of the term specified in Section 2, this Agreement shall terminate and be of no further force or effect. Contractor shall transfer title to City, and deliver in the manner, at the times, and to the extent, if any, directed by City, any work in progress, completed work, supplies, equipment, and other materials produced as a part of, or acquired in connection with the performance of this Agreement, and any completed or partially completed work which, if this Agreement had been completed, would have been required to be furnished to City. This subsection shall survive termination of this Agreement.

22. Conflict of Interest. Through its execution of this Agreement, Contractor acknowledges that it is familiar with the provision of Section 15.103 of the City's Charter, Article III, Chapter 2 of City's Campaign and Governmental Conduct Code, and Section 87100 et seq. and Section 1090 et seq. of the Government Code of the State of California, and certifies that it does not know of any facts which constitutes a violation of said provisions and agrees that it will immediately notify the City if it becomes aware of any such fact during the term of this Agreement.

23. Proprietary or Confidential Information. The Parties understand and agree that, in the performance of the work or Services under this Agreement or in contemplation thereof, each Party may have access to private or confidential information which may be owned or controlled by the other Party and that such information may contain proprietary or confidential details, the disclosure of which to third parties may be damaging to the disclosing party. The receiving party agrees that all information disclosed by the disclosing party shall be held in confidence and used only in performance of this Agreement. Subject to the San Francisco Sunshine Ordinance, San Francisco Administrative Code, Chapter 67, the receiving party shall exercise the same standard of care to protect such information as it uses to protect its own proprietary information. The disclosing party agrees that the foregoing shall not apply with respect to any information that the receiving party can document (i) is or becomes generally available to the public through no improper action or inaction by the receiving party or any affiliate, agent, consultant or employee thereof, (ii) was already in receiving party's possession at the time of its disclosure through no improper action or inaction by the receiving party or any affiliate, agent, consultant or employee thereof, (iii) was rightfully disclosed to it by a third party who had the right to disclose such information, without restriction on disclosure and without breach of this or any other agreement

between the Parties hereto, or (iv) was independently developed by the receiving party without use of the confidential information of the disclosing party. The receiving party may make disclosures required by law or court order provided the receiving party uses diligent reasonable efforts to limit disclosure and to obtain confidential treatment or a protective order and has allowed the disclosing party to participate in the proceeding.

All confidential information shall remain the sole property of the disclosing party and nothing in this Agreement is intended to or shall grant any interests or rights, by license or otherwise to the receiving party under any patent, copyright, trademark, service mark, trade name, trade secret or other intellectual property right of the disclosing party. The disclosing party disclaims all warranties regarding all confidential information disclosed pursuant to this Agreement, including but not limited to all warranties regarding the accuracy or utility of such confidential information. All materials containing any confidential information (including all copies made by the receiving party) shall be returned to the disclosing party immediately upon termination or expiration of this Agreement, or upon the receiving party's determination that it no longer has a need for such confidential information. In addition, upon request of the disclosing party, the receiving party shall return or destroy confidential information, and all materials containing any such confidential information (including all copies made by the receiving party).

24. Notices to the Parties. Unless otherwise indicated elsewhere in this Agreement, all written communications sent by the parties may be by U.S. mail, e-mail or by fax, and shall be addressed as follows:

To City: **Jiayo Chiang**
San Francisco Public Utilities Commission
525 Golden Gate Ave., 7th Floor
San Francisco, CA 94102
(tel.) 415-554-0709
(fax) 415-554-1854
email: jchiang@sfwater.org

Pam Husing
San Francisco Public Utilities Commission
525 Golden Gate Ave., 7th Floor
San Francisco, CA 94102
(tel.) 415-554-2469
(fax) 415-554-1854
email: phusing@sfwater.org

To Contractor: **Cris Gallegos**
APX, Inc.
224 Airport Parkway, Suite 600
San Jose, CA 95110
(tel.) 408 517-2154,
(fax) 408 573-7113
email: cgallegos@apx.com

Either party may change the address to which notice is to be sent by giving written notice thereof to the other party. If e-mail notification is used, the sender must specify a Receipt notice. Any notice of default must be sent by registered mail.

25. Ownership of Results. Unless otherwise provided in any applicable Appendix or Task Order, any interest of Contractor or its Subcontractors, in drawings, plans, specifications, blueprints, studies, reports, memoranda, computation sheets, computer files and media or other documents prepared by Contractor or its subcontractors in connection with Services to be performed under this Agreement, shall become the property of and will be transmitted to City. However, Contractor may retain and use copies for reference and as documentation of its experience and capabilities. The Parties acknowledge and agree that this Section 25 does not apply to the Services under Appendix A and Task Order #01.

26. Works for Hire. Unless otherwise provided in any applicable Appendix or Task Order, if, in connection with Services performed under this Agreement, Contractor or its subcontractors create artwork, copy, posters, billboards, photographs, videotapes, audiotapes, systems designs, software, reports, diagrams, surveys, blueprints, source codes or any other original works of authorship that are developed solely for use by the City, such works of authorship shall be works for hire as defined under Title 17 of the United States Code, and all copyrights in such works are the property of the City. If it is ever determined that any works created by Contractor or its subcontractors under this Agreement are not works for hire under U.S. law, Contractor hereby assigns all copyrights to such works to the City, and agrees to provide any material and execute any documents necessary to effectuate such assignment. With the approval of the City, Contractor may retain and use copies of such works for reference and as documentation of its experience and capabilities. The Parties acknowledge and agree that this Section 26 does not apply to the Services provided under Appendix A or Task Order #01.

Nothing contained in this Agreement shall be construed as limiting or depriving Contractor of its rights to use its knowledge, skills, formats, processes, methods and procedures ("General Know-How") to design or carry out other projects or work for itself or others, whether or not such projects or work, are similar to the work to be performed pursuant to this Agreement; provided that such General Know-How does not include any City Confidential Information.

27. Audit and Inspection of Records. Contractor agrees to maintain and make available to the City, during regular business hours, accurate books and accounting records relating to its work under this Agreement. Such audit shall be (i) noticed in writing at least ten (10) days in advance of such audit, (ii) made no more than once per year during the term of this Agreement, and (iii) shall be conducted in a manner so as not to interfere with Contractor's normal business activities. A final audit may be conducted within twelve (12) months after the termination or expiration of this Agreement. Contractor will permit City to audit, examine and make excerpts and transcripts from such books and records, and to make audits of all invoices, materials, payrolls, records or personnel and other data related to all other matters covered by this Agreement, whether funded in whole or in part under this Agreement. Contractor shall maintain such data and records in an accessible location and condition for a period of not less than three (3) years after final payment under this Agreement or until after final audit has been resolved, whichever is later. In any such audit conducted pursuant to this Section 27, City shall reimburse Contractor for all costs associated with any assistance provided by Contractor in

support of such audit on a time and materials basis at Contractor's then current rates for such services, including any third party costs incurred by Contractor as a result of such audit.

28. Subcontracting. Contractor is prohibited from subcontracting this Agreement or any part of it unless such subcontracting is first approved by City in writing, which approval shall not be unreasonably withheld or delayed. Neither party shall, on the basis of this Agreement, contract on behalf of or in the name of the other party. An agreement made in violation of this provision shall confer no rights on any party and shall be null and void.

29. Assignment. The Services to be performed by Contractor are personal in character and neither this Agreement nor any duties or obligations hereunder may be assigned or delegated by the Contractor unless first approved by City by written instrument executed and approved in the same manner as this Agreement.

30. Non-Waiver of Rights. The omission by either party at any time to enforce any default or right reserved to it, or to require performance of any of the terms, covenants, or provisions hereof by the other party at the time designated, shall not be a waiver of any such default or right to which the party is entitled, nor shall it in any way affect the right of the party to enforce such provisions thereafter.

31. Consideration of Criminal History in Hiring and Employment Decisions.

a. Contractor agrees to comply fully with and be bound by all of the provisions of Chapter 12T "City Contractor/Subcontractor Consideration of Criminal History in Hiring and Employment Decisions," of the San Francisco Administrative Code (Chapter 12T), including the remedies provided, and implementing regulations, as may be amended from time to time. The provisions of Chapter 12T are incorporated by reference and made a part of this Agreement as though fully set forth herein. The text of the Chapter 12T is available on the web at www.sfgov.org/olse/fco. A partial listing of some of Contractor's obligations under Chapter 12T is set forth in this Section. Contractor is required to comply with all of the applicable provisions of 12T, irrespective of the listing of obligations in this Section. Capitalized terms used in this Section and not defined in this Agreement shall have the meanings assigned to such terms in Chapter 12T.

b. The requirements of Chapter 12T shall only apply to a Contractor's or Subcontractor's operations to the extent those operations are in furtherance of the performance of this Agreement, shall apply only to applicants and employees who would be or are performing work in furtherance of this Agreement, shall apply only when the physical location of the employment or prospective employment of an individual is wholly or substantially within the City of San Francisco, and shall not apply when the application in a particular context would conflict with federal or state law or with a requirement of a government agency implementing federal or state law.

c. Contractor shall incorporate by reference in all subcontracts the provisions of Chapter 12T, and shall require all subcontractors to comply with such provisions. Contractor's failure to comply with the obligations in this subsection shall constitute a material breach of this Agreement.

d. Contractor or Subcontractor shall not inquire about, require disclosure of, or if such information is received base an Adverse Action on an applicant's or potential applicant for

employment, or employee's: (1) Arrest not leading to a Conviction, unless the Arrest is undergoing an active pending criminal investigation or trial that has not yet been resolved; (2) participation in or completion of a diversion or a deferral of judgment program; (3) a Conviction that has been judicially dismissed, expunged, voided, invalidated, or otherwise rendered inoperative; (4) a Conviction or any other adjudication in the juvenile justice system; (5) a Conviction that is more than seven years old, from the date of sentencing; or (6) information pertaining to an offense other than a felony or misdemeanor, such as an infraction.

e. Contractor or Subcontractor shall not inquire about or require applicants, potential applicants for employment, or employees to disclose on any employment application the facts or details of any conviction history, unresolved arrest, or any matter identified in subsection 32(d), above. Contractor or Subcontractor shall not require such disclosure or make such inquiry until either after the first live interview with the person, or after a conditional offer of employment.

f. Contractor or Subcontractor shall state in all solicitations or advertisements for employees that are reasonably likely to reach persons who are reasonably likely to seek employment to be performed under this Agreement, that the Contractor or Subcontractor will consider for employment qualified applicants with criminal histories in a manner consistent with the requirements of Chapter 12T.

g. Contractor and Subcontractors shall post the notice prepared by the Office of Labor Standards Enforcement (OLSE), available on OLSE's website, in a conspicuous place at every workplace, job site, or other location under the Contractor or Subcontractor's control at which work is being done or will be done in furtherance of the performance of this Agreement. The notice shall be posted in English, Spanish, Chinese, and any language spoken by at least 5% of the employees at the workplace, job site, or other location at which it is posted.

h. Contractor understands and agrees that if it fails to comply with the requirements of Chapter 12T, the City shall have the right to pursue any rights or remedies available under Chapter 12T, including but not limited to, a penalty of \$50 for a second violation and \$100 for a subsequent violation for each employee, applicant or other person as to whom a violation occurred or continued, termination or suspension in whole or in part of this Agreement.

32. Intentionally Omitted.

33. Nondiscrimination; Penalties.

a. **Contractor Shall Not Discriminate.** In the performance of this Agreement, Contractor agrees not to discriminate against any employee, City and County employee working with such contractor or subcontractor, applicant for employment with such contractor or subcontractor, or against any person seeking accommodations, advantages, facilities, privileges, services, or membership in all business, social, or other establishments or organizations, on the basis of the fact or perception of a person's race, color, creed, religion, national origin, ancestry, age, height, weight, sex, sexual orientation, gender identity, domestic partner status, marital status, disability or Acquired Immune Deficiency Syndrome or HIV status (AIDS/HIV status), or association with members of such protected classes, or in retaliation for opposition to discrimination against such classes.

b. **Subcontracts.** Contractor shall incorporate by reference in all subcontracts the provisions of §§12B.2(a), 12B.2(c)-(k), and 12C.3 of the San Francisco Administrative Code

(copies of which are available from Purchasing) and shall require all subcontractors to comply with such provisions. Contractor's failure to comply with the obligations in this subsection shall constitute a material breach of this Agreement.

c. **Nondiscrimination in Benefits.** Contractor does not as of the date of this Agreement and will not during the term of this Agreement, in any of its operations in San Francisco, on real property owned by San Francisco, or where work is being performed for the City elsewhere in the United States, discriminate in the provision of bereavement leave, family medical leave, health benefits, membership or membership discounts, moving expenses, pension and retirement benefits or travel benefits, as well as any benefits other than the benefits specified above, between employees with domestic partners and employees with spouses, and/or between the domestic partners and spouses of such employees, where the domestic partnership has been registered with a governmental entity pursuant to state or local law authorizing such registration, subject to the conditions set forth in §12B.2(b) of the San Francisco Administrative Code.

d. **Condition to Contract.** As a condition to this Agreement, Contractor shall execute the "Chapter 12B Declaration: Nondiscrimination in Contracts and Benefits" form (Form CMD-12B-101) with supporting documentation and secure the approval of the form by the San Francisco Contracts Monitoring Division (formerly 'Human Rights Commission').

e. **Incorporation of Administrative Code Provisions by Reference.** The provisions of Chapters 12B and 12C of the San Francisco Administrative Code are incorporated in this Section by reference and made a part of this Agreement as though fully set forth herein. Contractor shall comply fully with and be bound by all of the provisions that apply to this Agreement under such Chapters, including but not limited to the remedies provided in such Chapters. Without limiting the foregoing, Contractor understands that pursuant to §§12B.2(h) and 12C.3(g) of the San Francisco Administrative Code, a penalty of \$50 for each person for each calendar day during which such person was discriminated against in violation of the provisions of this Agreement may be assessed against Contractor and/or deducted from any payments due Contractor.

34. MacBride Principles—Northern Ireland. Pursuant to San Francisco Administrative Code §12F.5, the City and County of San Francisco urges companies doing business in Northern Ireland to move towards resolving employment inequities, and encourages such companies to abide by the MacBride Principles. The City and County of San Francisco urges San Francisco companies to do business with corporations that abide by the MacBride Principles. By signing below, the person executing this agreement on behalf of Contractor acknowledges and agrees that he or she has read and understood this section.

35. Intentionally Omitted

36. Drug-Free Workplace Policy. Contractor acknowledges City's policy that, pursuant to the Federal Drug-Free Workplace Act of 1989, the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited on City premises. Contractor agrees that any violation of this prohibition by Contractor, its employees, agents or assigns will be deemed a material breach of this Agreement.

37. Resource Conservation. Chapter 5 of the San Francisco Environment Code ("Resource Conservation") is incorporated herein by reference. Failure by Contractor to comply with any of the applicable requirements of Chapter 5 will be deemed a material breach of contract.

38. Compliance with Americans with Disabilities Act. Contractor acknowledges that, pursuant to the Americans with Disabilities Act (ADA), programs, services and other activities provided by a public entity to the public, whether directly or through a contractor, must be accessible to the disabled public. Contractor shall provide the Services specified in this Agreement in a manner that complies with the ADA, if applicable, and any and all other applicable federal, state and local disability rights legislation. Contractor agrees not to discriminate against disabled persons in the provision of Services, benefits or activities provided under this Agreement.

39. Sunshine Ordinance. In accordance with San Francisco Administrative Code §67.24(e), contracts, contractors' bids, responses to solicitations and all other records of communications between City and persons or firms seeking contracts, shall be open to inspection immediately after a contract has been awarded. Nothing in this provision requires the disclosure of a private person or organization's net worth or other proprietary financial data submitted for qualification for a contract or other benefit until and unless that person or organization is awarded the contract or benefit. Information provided which is covered by this paragraph will be made available to the public upon request.

40. Limitations on Contributions. Through execution of this Agreement, Contractor acknowledges that it is familiar with section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with the City for the rendition of personal services, for the furnishing of any material, supplies or equipment, for the sale or lease of any land or building, or for a grant, loan or loan guarantee, from making any campaign contribution to (1) an individual holding a City elective office if the contract must be approved by the individual, a board on which that individual serves, or the board of a state agency on which an appointee of that individual serves, (2) a candidate for the office held by such individual, or (3) a committee controlled by such individual, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for such contract or six months after the date the contract is approved. Contractor acknowledges that the foregoing restriction applies only if the contract or a combination or series of contracts approved by the same individual or board in a fiscal year have a total anticipated or actual value of \$50,000 or more. Contractor further acknowledges that the prohibition on contributions applies to each prospective party to the contract; each member of Contractor's board of directors; Contractor's chairperson, chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than 20 percent in Contractor; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Contractor. Additionally, Contractor acknowledges that Contractor must inform each of the persons described in the preceding sentence of the prohibitions contained in Section 1.126. Contractor further agrees to provide to City the names of each person, entity or committee described above.

41. Requiring Minimum Compensation for Covered Employees.

a. Contractor agrees to comply fully with and be bound by all of the provisions of the Minimum Compensation Ordinance (MCO), as set forth in San Francisco Administrative Code Chapter 12P (Chapter 12P), including the remedies provided, and implementing guidelines and rules. The provisions of Sections 12P.5 and 12P.5.1 of Chapter 12P are incorporated herein by reference and made a part of this Agreement as though fully set forth. The text of the MCO is

available on the web at www.sfgov.org/olse/mco. A partial listing of some of Contractor's obligations under the MCO is set forth in this Section. Contractor is required to comply with all the provisions of the MCO, irrespective of the listing of obligations in this Section.

b. The MCO requires Contractor to pay Contractor's employees a minimum hourly gross compensation wage rate and to provide minimum compensated and uncompensated time off. The minimum wage rate may change from year to year and Contractor is obligated to keep informed of the then-current requirements. Any subcontract entered into by Contractor shall require the subcontractor to comply with the requirements of the MCO and shall contain contractual obligations substantially the same as those set forth in this Section. It is Contractor's obligation to ensure that any subcontractors of any tier under this Agreement comply with the requirements of the MCO. If any subcontractor under this Agreement fails to comply, City may pursue any of the remedies set forth in this Section against Contractor.

c. Contractor shall not take adverse action or otherwise discriminate against an employee or other person for the exercise or attempted exercise of rights under the MCO. Such actions, if taken within 90 days of the exercise or attempted exercise of such rights, will be rebuttably presumed to be retaliation prohibited by the MCO.

d. Contractor shall maintain employee and payroll records as required by the MCO. If Contractor fails to do so, it shall be presumed that the Contractor paid no more than the minimum wage required under State law.

e. The City is authorized to inspect Contractor's job sites and conduct interviews with employees and conduct audits of Contractor.

f. Contractor's commitment to provide the Minimum Compensation is a material element of the City's consideration for this Agreement. The City in its sole discretion shall determine whether such a breach has occurred. The City and the public will suffer actual damage that will be impractical or extremely difficult to determine if the Contractor fails to comply with these requirements. Contractor agrees that the sums set forth in Section 12P.6.1 of the MCO as liquidated damages are not a penalty, but are reasonable estimates of the loss that the City and the public will incur for Contractor's noncompliance. The procedures governing the assessment of liquidated damages shall be those set forth in Section 12P.6.2 of Chapter 12P.

g. Contractor understands and agrees that if it fails to comply with the requirements of the MCO, the City shall have the right to pursue any rights or remedies available under Chapter 12P (including liquidated damages), under the terms of the contract, and under applicable law. If, within 30 days after receiving written notice of a breach of this Agreement for violating the MCO, Contractor fails to cure such breach or, if such breach cannot reasonably be cured within such period of 30 days, Contractor fails to commence efforts to cure within such period, or thereafter fails diligently to pursue such cure to completion, the City shall have the right to pursue any rights or remedies available under applicable law, including those set forth in Section 12P.6(c) of Chapter 12P. Each of these remedies shall be exercisable individually or in combination with any other rights or remedies available to the City.

h. Contractor represents and warrants that it is not an entity that was set up, or is being used, for the purpose of evading the intent of the MCO.

i. If Contractor is exempt from the MCO when this Agreement is executed because the cumulative amount of agreements with this department for the fiscal year is less than \$25,000, but Contractor later enters into an agreement or agreements that cause contractor to exceed that amount in a fiscal year, Contractor shall thereafter be required to comply with the MCO under this Agreement. This obligation arises on the effective date of the agreement that causes the cumulative amount of agreements between the Contractor and this department to exceed \$25,000 in the fiscal year.

42. Requiring Health Benefits for Covered Employees.

Unless exempt, Contractor agrees to comply fully with and be bound by all of the provisions of the Health Care Accountability Ordinance (HCAO), as set forth in San Francisco Administrative Code Chapter 12Q, including the remedies provided, and implementing regulations, as the same may be amended from time to time. The provisions of section 12Q.5.1 of Chapter 12Q are incorporated by reference and made a part of this Agreement as though fully set forth herein. The text of the HCAO is available on the web at www.sfgov.org/olse. Capitalized terms used in this Section and not defined in this Agreement shall have the meanings assigned to such terms in Chapter 12Q.

a. For each Covered Employee, Contractor shall provide the appropriate health benefit set forth in Section 12Q.3 of the HCAO. If Contractor chooses to offer the health plan option, such health plan shall meet the minimum standards set forth by the San Francisco Health Commission.

b. Notwithstanding the above, if the Contractor is a small business as defined in Section 12Q.3(e) of the HCAO, it shall have no obligation to comply with part (a) above.

c. Contractor's failure to comply with the HCAO shall constitute a material breach of this agreement. City shall notify Contractor if such a breach has occurred. If, within 30 days after receiving City's written notice of a breach of this Agreement for violating the HCAO, Contractor fails to cure such breach or, if such breach cannot reasonably be cured within such period of 30 days, Contractor fails to commence efforts to cure within such period, or thereafter fails diligently to pursue such cure to completion, City shall have the right to pursue the remedies set forth in 12Q.5.1 and 12Q.5 (f)(1-6). Each of these remedies shall be exercisable individually or in combination with any other rights or remedies available to City.

d. Any Subcontract entered into by Contractor shall require the Subcontractor to comply with the requirements of the HCAO and shall contain contractual obligations substantially the same as those set forth in this Section. Contractor shall notify City's Office of Contract Administration when it enters into such a Subcontract and shall certify to the Office of Contract Administration that it has notified the Subcontractor of the obligations under the HCAO and has imposed the requirements of the HCAO on Subcontractor through the Subcontract. Each Contractor shall be responsible for its Subcontractors' compliance with this Chapter. If a Subcontractor fails to comply, the City may pursue the remedies set forth in this Section against Contractor based on the Subcontractor's failure to comply, provided that City has first provided Contractor with notice and an opportunity to obtain a cure of the violation.

e. Contractor shall not discharge, reduce in compensation, or otherwise discriminate against any employee for notifying City with regard to Contractor's noncompliance or anticipated noncompliance with the requirements of the HCAO, for opposing any practice

proscribed by the HCAO, for participating in proceedings related to the HCAO, or for seeking to assert or enforce any rights under the HCAO by any lawful means.

f. Contractor represents and warrants that it is not an entity that was set up, or is being used, for the purpose of evading the intent of the HCAO.

g. Contractor shall maintain employee and payroll records in compliance with the California Labor Code and Industrial Welfare Commission orders, including the number of hours each employee has worked on the City Contract.

h. Contractor shall keep itself informed of the current requirements of the HCAO.

i. Contractor shall provide reports to the City in accordance with any reporting standards promulgated by the City under the HCAO, including reports on Subcontractors and Subtenants, as applicable.

j. Contractor shall provide City with access to records pertaining to compliance with HCAO after receiving a written request from City to do so and being provided at least ten business days to respond.

k. Contractor shall allow City to inspect Contractor's job sites and have access to Contractor's employees in order to monitor and determine compliance with HCAO.

l. City may conduct random audits of Contractor to ascertain its compliance with HCAO. Contractor agrees to cooperate with City when it conducts such audits.

m. If Contractor is exempt from the HCAO when this Agreement is executed because its amount is less than \$25,000 (\$50,000 for nonprofits), but Contractor later enters into an agreement or agreements that cause Contractor's aggregate amount of all agreements with City to reach \$75,000, all the agreements shall be thereafter subject to the HCAO. This obligation arises on the effective date of the agreement that causes the cumulative amount of agreements between Contractor and the City to be equal to or greater than \$75,000 in the fiscal year.

43. Intentionally Omitted.

44. Prohibition on Political Activity with City Funds. In accordance with San Francisco Administrative Code Chapter 12.G, Contractor may not participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure (collectively, "Political Activity") in the performance of the Services provided under this Agreement. Contractor agrees to comply with San Francisco Administrative Code Chapter 12.G and any implementing rules and regulations promulgated by the City's Controller. The terms and provisions of Chapter 12.G are incorporated herein by this reference. In the event Contractor violates the provisions of this section, the City may, in addition to any other rights or remedies available hereunder, (i) terminate this Agreement, and (ii) prohibit Contractor from bidding on or receiving any new City contract for a period of two (2) years. The Controller will not consider Contractor's use of profit as a violation of this section.

45. Intentionally Omitted.

46. Modification of Agreement. This Agreement may not be modified, nor may compliance with any of its terms be waived, except by written instrument executed and approved in the same manner as this Agreement.

47. Administrative Remedy for Agreement Interpretation.

a. **Negotiation; Alternative Dispute Resolution.** In the normal course of business, the Parties shall attempt, in good faith and using best efforts, to resolve any dispute arising out of or relating to this Agreement through informal dispute resolution. Informal dispute resolution procedures shall include discussion and negotiation between representatives of each Party who have authority to settle the dispute. In most cases, the representatives will be at a higher level of management than the persons with direct responsibility for day-to-day management of the issues involved in the dispute. In all disputes arising from City's use of any Services, the aggrieved Party shall notify the other Party(s) in writing of the nature of the dispute with as much detail as possible. A duly-authorized representative of each Party possessing full authority to resolve the dispute shall meet in person or by telephone within 14 business days after the date of written notice in order to reach an agreement resolving the dispute. If the Parties' representatives cannot resolve the dispute or agree upon a written corrective action plan within seven (7) business days after their initial meeting, or any mutual extension of time, the Parties may, but are not required to consider mediation. Neither Party shall initiate any legal action unless the process described in this Section 47 has been employed or waived.

b. **Government Code Claims.** No suit for money or damages may be brought against the City until a written claim therefor has been presented to and rejected by the City in conformity with the provisions of San Francisco Administrative Code Chapter 10 and California Government Code Section 900, et seq. Nothing set forth in this Agreement shall operate to toll, waive or excuse Contractor's compliance with the Government Code Claim requirements set forth in Administrative Code Chapter 10 and Government Code Section 900, et seq.

48. Agreement Made in California; Venue. The formation, interpretation and performance of this Agreement shall be governed by the laws of the State of California. Venue for all litigation relative to the formation, interpretation and performance of this Agreement shall be in San Francisco.

49. Construction. All paragraph captions are for reference only and shall not be considered in construing this Agreement.

50. Entire Agreement. This contract and the Appendices attached hereto and incorporated by reference sets forth the entire Agreement between the Parties, and supersedes all other oral or written provisions. This contract may be modified only as provided in Section 46, "Modification of Agreement." Any pre-printed terms and conditions on any purchase order or other document provided by City are hereby rejected and will have no substantive effect on this Agreement. If there is a conflict between the terms and conditions of City's purchase order (or any other purchase or sales document) and the terms and conditions of this Agreement, this Agreement shall control.

51. Compliance with Laws. Contractor shall keep itself fully informed of the City's Charter, codes, ordinances and regulations of the City and of all state, and federal laws in any manner affecting the performance of this Agreement, and must at all times comply with such local codes, ordinances, and regulations and all applicable laws as they may be amended from time to time.

52. Services Provided by Attorneys. Any services to be provided by a law firm or attorney must be reviewed and approved in writing in advance by the City Attorney. No invoices for

services provided by law firms or attorneys, including, without limitation, as subcontractors of Contractor, will be paid unless the provider received advance written approval from the City Attorney.

53. Reserved. (Supervision of Minors)

54. Severability. Should the application of any provision of this Agreement to any particular facts or circumstances be found by a court of competent jurisdiction to be invalid or unenforceable, then (a) the validity of other provisions of this Agreement shall not be affected or impaired thereby, and (b) such provision shall be enforced to the maximum extent possible so as to effect the intent of the parties and shall be reformed without further action by the parties to the extent necessary to make such provision valid and enforceable.

55. Protection of Private Information. The Parties agree to the terms set forth in San Francisco Administrative Code Sections 12M.2, "Nondisclosure of Private Information," and 12M.3, "Enforcement" of Administrative Code Chapter 12M, "Protection of Private Information," which are incorporated herein as if fully set forth. In such an event, in addition to any other remedies available to it under equity or law, the non-defaulting party may terminate this Agreement, bring a false claim action against the defaulting party pursuant to Chapter 6 or Chapter 21 of the Administrative Code, or debar the Contractor.

56. Reserved. (Graffiti Removal)

57. Intentionally Omitted.

58. Intentionally Omitted.

59. Cooperative Drafting. This Agreement has been drafted through a cooperative effort of both Parties, and both Parties have had an opportunity to have the Agreement reviewed and revised by legal counsel. No Party shall be considered the drafter of this Agreement, and no presumption or rule that an ambiguity shall be construed against the Party drafting the clause shall apply to the interpretation or enforcement of this Agreement.

60. Non-Solicitation. Neither Party is entering into this agreement with the purposes of soliciting employees of the other party for employment. During the course of the Agreement, each party agrees that it will act in good faith with regard to hiring practices relating to potential employees currently employed by the other party. San Francisco is governed by a Civil Service system.

61. Representations and Warranties.

City represents and warrants that City's services, products, materials, data, and information used by City in connection with this Agreement as well as City's and its permitted customers' and users' use of the Services hereunder does not and will not operate in any manner that would violate any applicable law or regulation.

In the event of any breach, or reasonably anticipated breach, of any of City's warranties herein, in addition to any other remedies available at law or in equity, Contractor will have the right to immediately, in Contractor's sole discretion, suspend any related services if deemed reasonably necessary by Contractor to prevent any harm to Contractor or its business.

Contractor represents and warrants that (i) it is qualified to perform the Services required by City as set forth under this Agreement and that such Services will be performed in a good and workmanlike manner.

EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH HEREIN, THE SERVICES ARE PROVIDED ON AN "AS IS" BASIS, AND CITY'S USE OF THE SERVICES IS AT ITS OWN RISK. CONTRACTOR DOES NOT MAKE, AND HEREBY DISCLAIMS, ANY AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND TITLE, AND ANY WARRANTIES ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day first mentioned above.

CITY, acting by and through its PUBLIC UTILITIES COMMISSION

CONTRACTOR
APX Inc.

Harlan L. Kelly, Jr.

for Harlan L. Kelly, Jr.
General Manager
San Francisco Public Utilities Commission

Approved as to Form:

Dennis J. Herrera
City Attorney

By: *Gustin R. Gilbert*

Gustin R. Gilbert
Deputy City Attorney

By signing this Agreement, I certify that I comply with the requirements of the Minimum Compensation Ordinance, which entitle Covered Employees to certain minimum hourly wages and compensated and uncompensated time off.

I have read and understood paragraph 35, the City's statement urging companies doing business in Northern Ireland to move towards resolving employment inequities, encouraging compliance with the MacBride Principles, and urging San Francisco companies to do business with corporations that abide by the MacBride Principles.

Katherine Graham

~~Cris Gallegos~~ Katherine Graham
APX Inc.
224 Airport Parkway, Suite 600
San Jose, CA, 95110

City vendor number:

Appendices

- A: Scheduling Coordinator and Related Services
 - Appendix A-1: Registered Generating Units
 - Appendix A-2: Contractor Contact List
 - Appendix A-3: Operations Procedure
- B: Community Benefits
- C: Task Orders
- D: Calculation of Charges

Appendix A

SCHEDULING COORDINATOR AND RELATED SERVICES

1. Definitions.

- 1.1. “**Ancillary Services**” has the meaning set forth in the CAISO Tariff.
- 1.2. “**Authorized Users**” means persons designated by City in the Operations Procedures.
- 1.3. “**Balancing Authority Area**” has the meaning set forth in the CAISO Tariff.
- 1.4. “**Business Day**” means a day on which Federal Monetary Reserve member banks are open for business in California and New York.
- 1.5. “**CAISO**” means the California Independent System Operator.
- 1.6. “**CAISO Controlled Grid**” has the meaning set forth in the CAISO Tariff.
- 1.7. “**CAISO Tariff**” means the FERC-approved tariff that governs the operations of CAISO, as in effect at any given time and as modified, amended, supplemented or restated.
- 1.8. “**Clearing Account**” means the account in which all monies owing from or owed to City are deposited or disbursed, as the case may be.
- 1.9. “**City Collateral**” means the cash held by Contractor and redeposited with the CAISO as collateral for City’s transactions with the CAISO that are undertaken by Contractor on behalf of the City.
- 1.10. “**City Collateral Requirement**” means the City Collateral required by the CAISO at any given time to cover City’s Net Exposure.
- 1.11. “**City Contact List**” has the meaning set forth in Section 2.3.
- 1.12. “**City Loads**” means the electric power consumption facilities owned, operated, or controlled by City.
- 1.13. “**Communication**” has the meaning set forth in the Operations Procedures.
- 1.14. “**Day-Ahead or DA**” has the meaning set forth in the CAISO Tariff.
- 1.15. “**Day-Ahead Market or DA Market**” has the meaning set forth in the CAISO Tariff.
- 1.16. “**Deviation**” means the difference between electric energy included in a Schedule and metered electric energy deliveries.
- 1.17. “**Export**” means the City’s energy products delivered outside the CAISO Balancing Authority Area through the interties..
- 1.18. “**Financial Security**” has the meaning set forth in the CAISO Tariff.

- 1.19. **“Import”** means City’s energy products delivered into the CAISO Balancing Authority Area through the interties.
- 1.20. **“Inter-SC Trade”** has the meaning set forth in the CAISO Tariff.
- 1.21. **“Initial Schedule”** means the schedules provided to Contractor by City in accordance with Section 4.1.3. The Initial Schedules will contain all of City’s relevant resources, loads, bids, and delivery and receipt points in hourly or smaller time intervals for the Day-Ahead and Real-Time Markets.
- 1.22. **“Margin Call”** means a Contractor demand for additional City Collateral in accordance with Section 9.3.
- 1.23. **“Market Operations Support Services”** means the services described in the Operations Procedures.
- 1.24. **“MarketSuite”** means the software that provides the electronic interface between City and Contractor and the CAISO.
- 1.25. **“MID Logical Meter Calculation”** means the financial arrangement between the Modesto Irrigation District (MID) and SFPUC to account for SFPUC’s positive deviations.
- 1.26. **“Net Exposure”** means Contractor’s good-faith estimate of City’s maximum net monetary exposure relating to Services at any given time, as determined by Contractor in its reasonable discretion plus any Contractor obligations to post collateral resulting from City’s CAISO activity, as determined by CAISO pursuant to CAISO Tariff Section 12.1.2.
- 1.27. **“Net Financial Position”** means the total amount due from or payable to City at any given time, exclusive of payments to Contractor under Section 7, based on City’s participation in the CAISO markets pursuant to this Agreement.
- 1.28. **“Operations Procedures”** has the meaning set forth in Section 2.5.
- 1.29. **“Pass-Through Charges”** means all charges by CAISO or any governmental authority in connection with City’s participation in the CAISO markets pursuant to this Agreement, including without limitation Grid Management Charges (as defined in the CAISO Tariff), taxes, fees, franchise fees and utility user taxes that are not disputed in accordance with Section 6.6.
- 1.30. **“Pass-Through Payments”** means all payments from CAISO, or any other entity, transferred to Contractor on behalf of City in connection with City’s participation in the CAISO markets pursuant to this Agreement that are not disputed in accordance with Section 6.6.
- 1.31. **“Payment Due Date”** means **10:00 a.m. Pacific** time on (i) the seventh (7th) Business Day after Contractor makes City’s Weekly Invoice available or (ii) the next Business Day following a Margin Call.

- 1.32. **“Payment Receipt Date”** means 12:00 noon Pacific time on the seventh (7th) Business Day following the Payment Due Date where upon Contractor will send monies owed to City.
- 1.33. **“Pre-Scheduling Services”** means scheduling and bidding activities in preparation for a Trade Day that occur (i) prior to the time that the CAISO DA Market opens each day, and (ii) activities that take place during the DA Market.
- 1.34. **“Real-Time”** has the meaning set forth in the CAISO Tariff.
- 1.35. **“Real-Time Market”** has the meaning set forth in the CAISO Tariff.
- 1.36. **“Real-Time Services”** means scheduling actions and bidding undertaken (i) after the close of the Day Ahead Market on the day prior to the trading day, or (ii) activities that occur on the same day or in the next hour of the CAISO energy market and take place in the Real-Time Market.
- 1.37. **“Redeposited Funds”** has the meaning set forth in Section 9.2.
- 1.38. **“Registered Generating Unit”** means any City Generating Unit and/or Demand Response Resources (as these terms are defined in the CAISO Tariff) designated by the City in Appendix A-1.
- 1.39. **“Resource Adequacy”** means the procurement obligation of load serving entities as set forth in Public Utilities Code Section 380 and implemented by the California Public Utilities Commission and CAISO, as those obligations may be altered from time to time.
- 1.40. **“Schedule”** has the meaning set forth in the CAISO Tariff.
- 1.41. **“Scheduling Coordinator”** or **“SC”** has the meaning set forth in the CAISO Tariff.
- 1.42. **“Scheduling Coordinator Agent”** means an entity designated by a certified Scheduling Coordinator to serve as the scheduling agent for the SC’s generating units, imports, exports, and loads. The SC assumes the financial responsibility associated with the SCID.
- 1.43. **“Scheduling Coordinator ID Code”** or **“SCID”** has the meaning set forth in the CAISO Tariff.
- 1.44. **“Services”** means the services described in this Appendix A and in any Task Order(s) entered into pursuant to Appendix C of this Agreement.
- 1.45. **“Settlement Quality Meter Data”** or **“SQMD”** shall have the meaning set forth in the CAISO Tariff.
- 1.46. **“Settlement Statement”** means the statement of City’s actual and estimated amounts owed by or to it in connection with the City’s use of Services for the applicable billing period, including True-Up Amounts.

- 1.47. **“Third Party Clients”** means any other entity, including business units or affiliates of City, for which City is obligated to perform services.
- 1.48. **“True-Up Amount”** means the amount credited or debited to reflect (i) Pass-Through Charges, (ii) Pass-Through Payments, or (iii) any other new CAISO settlement information related to City’s actual activities and liabilities for a previous settlement period.
- 1.49. **“Weekly Invoice”** means the statement issued by Contractor to City for City’s transactions in the week preceding the issuance of the statement, including without limitation payments made or received, Pass-Through Charges and Pass-Through Payments as set forth in Section 6.3.

2. General:

- 2.1 The City has delivered the City Collateral required for the initial SCID’s supported hereunder, identified in Section 4.1.2. Any additional SCID’s requested by the City will require additional City Collateral which must be delivered to the Contractor prior to such new SCID’s being supported.
- 2.2 The City’s designated Registered Generating Units are attached hereto as Appendix A-1. The City may change its Registered Generating Units designations by giving Contractor ten (10) business days written notice.
- 2.3 The City’s Contact List is included in the Operations Procedures. City shall provide Contractor twenty-four (24) hours a day, seven (7) days a week access to the primary and emergency contacts on the City’s Contact List, in order to permit and enable the prompt and proper resolution of issues related to this Agreement, including but not limited to, Real-Time scheduling issues. City may update its Contact List in writing at any time.
- 2.4 Contractor’s Contact List is attached hereto as Appendix A-2. Contractor shall provide City access twenty-four (24) hours a day, seven (7) days a week to the primary and emergency contacts on the Contractor’s Contact List, in order to permit and enable the prompt and proper resolution of issues related to this Agreement, including but not limited to, real-time scheduling issues. Contractor may update its Contact List in writing at any time.
- 2.5 The Operations Procedure is attached hereto as Appendix A-3. The Parties shall follow the Operations Procedure as it applies to the roles and responsibilities set forth in this Appendix A.
- 2.6 City hereby grants to Contractor the authority necessary to act as a Scheduling Coordinator on behalf of City’s Registered Generating Units, Imports, Exports, and City Loads in accordance with and subject to the requirements of this Agreement and the CAISO Tariff.
- 2.7 As part of Contractor’s proposal dated July 31, 2014, Contractor identified the following personnel for the performance of the Services under this Agreement: Paul Innamorato, Director Operations; Andrew Thornton, Director Product Development.

2.7.1 Any proposed changes to project personnel or staff classification as listed in this Section must be approved in advance of any work performed under this Agreement and in writing by the SFPUC Project Manager. These personnel changes may include but are not limited to:

2.7.1.1 Proposed addition of new project personnel to perform requested services that are within the scope of the Agreement;

2.7.1.2 Proposed change of staff classification for existing personnel; and/or

2.7.1.3 Proposed replacement or substitution of any employee due to termination, promotion or reclassification.

3 Reporting and Information

3.1 City Obligations:

3.1.1 If any material modification is made to a City Registered Generating Unit, City shall promptly inform Contractor in writing.

3.1.2 City shall reasonably respond to data or action requests from Contractor that are necessary to enable Contractor to provide the Services in compliance with the CAISO Tariff and this Agreement.

3.1.3 City shall advise Contractor of material operational changes, or communication system degradations, or technical difficulties that may affect Contractor's performance of the Services as soon as practicable.

3.1.4 If applicable, City shall maintain City-side communications systems, inclusive of back-up systems, between the City and Contractor's systems.

3.2 Contractor Obligations:

3.2.1 Contractor shall comply with all reporting and information requirements of the CAISO Tariff as necessary to provide the Services.

3.2.2 Contractor shall notify City of any changes to the CAISO Tariff and SC related requirements as well as impending CAISO new market initiatives that may impact City's scheduling operations.

3.2.3 Contractor shall allow Authorized Users and their designated representatives access to relevant CAISO Market Participant Portal tools and development environments, including CMRI, SIBR, MRI-S, PIRP, ADS, and SLIC/OMS by submitting applications to CAISO as required to ensure such access and to ensure security certificates are up-to-date.

4 Scheduling and Related Services

4.1 Contractor will be the Scheduling Coordinator for Registered Generating Units, Imports, Exports, and City Loads. Contractor shall comply with all applicable requirements of the CAISO Tariff and, at all times during the term of this Agreement, shall maintain its Scheduling Coordinator certification with the CAISO. Contractor's Scheduling Coordinator obligations shall include, but are not limited to the following:

4.1.1 Managing SC accounts, including registration, maintenance, modification, and termination of accounts as necessary.

- 4.1.2 Establishing SCID(s) as required by City in order to facilitate City's CAISO market participation, including establishing credit and or collateral for each SCID. City, in its sole discretion may require Contractor to establish multiple SCIDs for City's Registered Generating Units or City Loads. Contractor shall process invoices and settlements as set forth in Section 6 of this Agreement separately for each SCID. The initial SCID's to be supported as of the Effective Date of this Agreement are CCSF, CSFP, and CSFS only. Additional SCID's may be added pursuant to a Task Order under Appendix C and are subject to an additional fee for each additional SCID.
- 4.1.3 Accepting City's Initial Schedules in a format that is acceptable to both Parties in accordance with Section 4.2.1.
- 4.1.4 Working with City to seamlessly interface Contractor's scheduling software with the City's scheduling tools, energy trading and risk management systems, and hydro power scheduling applications. The City currently uses Aligne Power Operations (formerly 'ACES') software to pre-schedule. The City expects to transition to another commercial provider by July 2015. The Contractor shall ensure that its scheduling software will seamlessly interface with the City's new software.
- 4.1.5 Providing Pre-Scheduling Services and Real-Time Services on a twenty-four (24) hours a day, seven (7) days a week basis, in accordance with this Agreement and the CAISO Tariff, including but not limited to:
 - 4.1.5.1 Submitting Schedules for Registered Generating Units, Exports, Imports and City Loads, and bids into the CAISO scheduling system and the appropriate energy and Ancillary Services markets on behalf of the City, within the CAISO timelines, relaying instructions and communications received from the CAISO to City personnel, and acting upon the City's instructions. Contractor shall provide prompt notice of the successful submission of Schedules and bids to City.
 - 4.1.5.2 Monitoring bid results posted in the Day-Ahead Market, relaying necessary information to City's schedulers or Real-Time operators, and responding to instructions from City personnel.
 - 4.1.5.3 Monitoring CAISO dispatch instructions received through the CAISO's Automatic Dispatch System (ADS) for City's Real-Time dispatches and specific CAISO operating instructions, relaying necessary information to City's schedulers or Real-Time operators, and responding to instructions from City personnel.
 - 4.1.5.4 For the purpose of Sections 4.1.5.1, 4.1.5.2, and 4.1.5.3, in the event that Contractor is unable to contact authorized City personnel by the time necessary to comply with CAISO deadlines, Contractor shall act in a commercially reasonable manner and in accordance with prudent utility practice to respond to the CAISO's instructions and communications, including adjusting submitted Schedules or bids, without express City approval in order to avoid or mitigate imbalance charges or penalties

while effectuating the City's scheduling objectives. Contractor shall notify City as soon as reasonably practicable of the Contractor's actions. City shall be financially responsible for adjustments made in compliance with this Agreement.

- 4.1.5.5 Submitting Inter-SC Trades on behalf of the City in accordance with CAISO Tariff.
 - 4.1.6 Providing Authorized Users with access Contractor's MarketSuite application to allow the Authorized Users to view, edit, and resubmit the scheduling data submitted to CAISO as well as to view the market results posted by CAISO.
 - 4.1.7 Promptly transmitting applicable SQMD, messages, notifications, instructions, and orders sent by CAISO, including without limitation error messages generated by CAISO's Schedule validation checks and curtailment or adjustment orders, in sufficient time to allow the City to respond.
 - 4.1.8 Calculating, billing and collecting from City any Pass-Through Charges owed to CAISO.
 - 4.1.9 Calculating, billing, collecting from CAISO and remitting to the City any Pass-Through Payments owed to City.
 - 4.1.10 After verifying the CAISO weekly invoice, paying the CAISO for Pass-Through Charges on behalf of the City in accordance to the CAISO Payments Calendar and Section 6.7 of this Appendix A.
 - 4.1.11 Working with the City to develop and submit all necessary Resource Adequacy reports to the CAISO pursuant to CAISO Tariff Section 40.
 - 4.1.12 Reporting Registered Generating Unit outages to the CAISO on behalf of the City using the CAISO's Outage Management System (OMS) template, consistent with information on outages received from the City. Contractor shall promptly transmit CAISO acceptance of the OMS submission to designated City personnel.
 - 4.1.13 Monitoring City's CAISO collateral requirements and promptly notifying City of changes to its collateral requirements.
- 4.2 To support Contractor's functioning as City's SC, the City will:
- 4.2.1 Provide all communications that Contractor is to submit to CAISO on City's behalf, including Initial Schedules and bids, to Contractor using the Contractor's MarketSuite™ and in accordance with the CAISO scheduling deadlines. The file format shall be CSV or XML (or other agreed-upon format) and be transmitted by web services, SFTP or other automated transfer mechanism.
 - 4.2.2 Provide monthly load forecast data, including energy and demand, and forecasted resource capacity for Resource Adequacy purposes.
 - 4.2.3 Report Registered Generating Unit outages to Contractor through OMS.
 - 4.2.4 Provided that Contractor submits Schedules in accordance with the requirements of this Agreement and the CAISO Tariff, the City shall be

financially responsible for injections and withdrawals specified in any Schedule submitted to CAISO by Contractor on City's behalf and for all charges and fees imposed on Contractor by the CAISO related to City's Schedules.

5 Metering and Meter Data Requirements.

5.1 City's Obligations:

- 5.1.1 City shall ensure that all Registered Generating Units, Imports, Exports, and City Loads have in place and maintain all metering equipment and facilities required to comply with the CAISO Tariff and applicable law.
- 5.1.2 City shall provide for automated delivery of load and generation meter data in the CAISO's OMAR format to Contractor for each meter data submission period via API, FTP, or web services, for delivery to CAISO. Contractor shall provide automated confirmation of receipt of each City meter data submission.
- 5.1.3 No later than five (5) days before a particular day's energy consumption and production data is due to the CAISO, the City shall provide SQMD to Contractor in a manner that conforms with all applicable provisions of the CAISO Tariff, and the CAISO's Business Practice Manual for Settlements and Billing.
- 5.1.4 City may either provide or arrange for the provision of SQMD to Contractor, or enter into a mutual agreement with Contractor whereby Contractor produces SQMD for the Registered Generating Units, Imports, Exports, and City Loads.
- 5.1.5 City is solely responsible for any error in the SQMD that it submits to Contractor and any resulting charges/consequences by the CAISO.

5.2 Contractor Obligations:

- 5.2.1 Contractor shall provide for automated receipt of load and generation schedule data from the City for Day-Ahead and Real-Time Markets for delivery to CAISO.
- 5.2.2 Contractor shall facilitate the submission of Day-Ahead and Real-Time forecasts for Sunset Reservoir photovoltaic generation to CAISO.
- 5.2.3 Contractor shall be entitled to conduct an annual audit of the data, materials, books or other records that may be involved in the processing of SQMD for City Registered Generating Units, Imports, Exports, and and/or City Loads if required for Contractor to maintain its Scheduling Coordinator certification.
 - 5.2.3.1 The audit shall be conducted at City's expense at a mutually convenient time and place, preferably where data is processed or records are stored.
 - 5.2.3.2 Contractor shall provide reasonable advance notice of the audit, audit time, and place.
 - 5.2.3.3 Contractor shall conduct the audit during normal business hours unless City and Contractor agree otherwise.

6 Settlement Services.

- 6.1 Contractor shall provide all required settlement functions as set forth in the CAISO Tariff for City Schedules and this Agreement including, without limitation, management of CAISO Settlement charges and payments.
- 6.2 Promptly after receiving the weekly invoice from CAISO with respect to City's activities, Contractor will review and verify the CAISO's weekly invoice, including identifying inaccuracies in the CAISO's settlement statements and weekly market invoices.
- 6.3 Contractor shall prepare a Weekly Invoice reflecting City's Net Financial Position pursuant to this Section. The Weekly Invoice will include any new or adjusted Pass-Through Charges, Pass-Through Payments or True-Up Amounts up to the issuance date, even if such items relate to activity preceding the period that is the subject of the Weekly Invoice.
 - 6.3.1 Contractor will provide the City with all settlement data for verification and validation of charges and credits in the Weekly Invoice.
 - 6.3.2 Contractor shall download all relevant files from the CAISO pertaining to City SCID(s) and provide an automated mechanism for the City to download these files.
 - 6.3.3 Data and file types should include, but are not limited to, the following:
 - 6.3.3.1 Expected energy market awards.
 - 6.3.3.2 Market prices.
 - 6.3.3.3 City and CAISO (public) bill determinants for all settlement statement versions.
 - 6.3.3.4 CAISO settlement statements and invoices.
- 6.4 Within 3 business days after receipt of a recalculated settlement statement from CAISO, Contractor will submit to City a Settlement Statement reflecting the actual and estimated amounts owed by or to City in connection with City's use of the Services for the relevant billing period.
- 6.5 All Settlement Statements and Weekly Invoices will be sent via email to City.
- 6.6 Billing Errors and Disputes
 - 6.6.1 If the Contractor identifies an error regarding any amount in the Settlement Statement or Weekly Invoice, Contractor will promptly notify City and correct such error as soon as practicable. City shall pay or shall receive any additional amounts as a result of a corrected Settlement Statement or Weekly Invoice in the manner described in Sections 6.7.1 or 6.7.2
 - 6.6.2 If City disputes any CAISO determined amount in the Settlement Statement or Weekly Invoice, City shall notify Contractor of City's dispute within five (5) business days after the date of the Settlement Statement or Weekly Invoice in which the disputed amount first appears. Contractor will timely challenge the disputed amount using the CAISO dispute procedures. With the City's assistance and in accordance with the City's express written directions, the Contractor will diligently pursue such challenges and provide regular reporting on dispute resolution and negotiations to City. City shall pay the Weekly Invoice, even if

disputed, by the Payment Due Date. If the dispute is resolved in the City's favor after the Payment Due Date, Contractor shall post the resulting credit to the current Settlement Statement.

- 6.6.3 Except with respect to challenges subject to resolution through the CAISO dispute procedures, City shall be solely responsible for raising, pursuing and resolving any dispute regarding Pass-Through Payments with the applicable party and/or originator. Contractor's responsibility shall be confined to providing, in response to City's reasonable request, information concerning City's awarded bids/offers and trades.

6.7 Payment.

- 6.7.1 City shall wire payment of the Weekly Invoice into the Clearing Account on or before the Payment Due Date. City is responsible for ensuring that sufficient funds to cover payment for all outstanding liabilities are deposited into the Clearing Account on or before the Payment Due Date.
- 6.7.2 Contractor shall submit payment owed to the CAISO on behalf of City in accordance to the CAISO Payments Calendar.
- 6.7.3 City's liability for amounts owing to other entities pursuant to this Agreement shall be discharged to the extent available funds has been deposited by City in the Clearing Account by the applicable Payment Due Date. If sufficient funds have not been deposited in the Clearing Account by the Payment Due Date, Contractor will allocate the available funds that have been deposited by City in accordance with the City's instructions.
- 6.7.4 Contractor shall effectuate payment to City of any amounts owed to City after each invoice cycle by withdrawing the amount due from the Clearing Account and depositing such amount into an account designated by City. Such payment will occur on the Payment Receipt Date or such other date as may be agreed upon in writing between Contractor and City.
- 6.7.5 Contractor will remit to City all Pass-Through Payments that are owing to City and that Contractor has received as of the Payment Due Date. Such remittance will occur on the Payment Receipt Date. In performing this function, Contractor will forward the Pass-Through Payments actually received and shall bear no responsibility for any shortage, delay or reduction in the Pass-Through Payment that the originator of the payment may have caused.
- 6.7.6 All exchanges of funds into or out of the Clearing Account shall be by wire, ACH or similarly secure electronic funds transfer method proposed by City and approved by Contractor. All deposits into and payments from the Clearing Account shall be in U.S. dollars.

7 Compensation for Services.

- 7.1 Contractor's compensation for the Services set forth in this Appendix A shall not exceed two million one hundred thousand dollars (\$2,100,000).
- 7.2 During the term of this Agreement, on a monthly basis, Contractor shall invoice City in the amount of thirty-five thousand dollars (\$35,000) for Services performed pursuant to

Appendix A during the prior month. Invoices furnished by Contractor under this Agreement must be in a form acceptable to the SFPUC, and must include a unique invoice number.

7.3 All invoices for Services shall be due and payable on or before thirty (30) days after receipt of the invoice or, if such day is not a Business Day, then on the next Business Day. City shall make payments by electronic funds transfer or by other mutually agreeable method(s), to the account designated by Contractor. In no event shall City be liable for interest or late charges for any late payments.

8 Market Operations Support Services.

Contractor will support the City with market operations in accordance with operations processes and the Operations Procedure set forth in Appendix A-3. The Operations Procedures may be updated from time to time by mutual agreement of the Parties.

9 City Collateral.

9.1 City shall deliver and maintain City Collateral in an amount that is sufficient to satisfy the CAISO's Financial Security requirements consistent with the CAISO Tariff for the City's transactions that will be undertaken by Contractor as the City's SC in accordance with this Agreement.

9.2 Contractor shall deposit all the City Collateral (the "Redeposited Funds") as Financial Security with CAISO, as defined and required by, and in a manner consistent with, the CAISO Tariff.

9.3 Contractor may make a Margin Call in response to CAISO's demand for Contractor to post additional Financial Security when such a call results from City's activity. A Margin Call can occur no more than once per day.

9.4 In the event City fails to satisfy a Margin Call by the Payment Due Date, Contractor shall have the right to suspend City's further use of the Services until City reduces its Net Exposure. Contractor shall pass through to the City any fees charged to Contractor by the CAISO related to a Margin Call.

10 Support and Maintenance Service.

Contractor shall provide telephone technical support upon request to all Authorized Users. Contractor shall provide the City access to Contractor's telephone and e-mail helpline, staffed twenty-four (24) hours a day, seven (7) days a week.

10.1 No Authorized User may assign or transfer its access or any rights therein to any Third Party Clients. City and Authorized Users shall immediately notify Contractor in the event that City or an Authorized User becomes aware of any violation of the terms of this Section 10.1. The initial list of Authorized Users is set forth in the Operations Procedures.

10.2 City and all Authorized Users shall protect the confidentiality of all Authorized User account information, including user names and passwords. In the event that an Authorized User becomes aware that the security of such party's login information has been breached, the party shall immediately notify Contractor and Contractor shall immediately deactivate such Account or change the Account's login information.

11 Change to SC Agent.

During the course of this Agreement, the City may opt to transition from having the Contractor act as the City's SC to having the Contractor act as the City's SC Agent. as the City's SC Agent, Contractor shall continue to undertake the responsibilities listed above; however, the City shall have a direct relationship with the CAISO as SC for Registered Generation Units, Imports, Exports, and/or City Loads, including obtaining its own SCID and posting Financial Security directly to the CAISO. In the event that the City opts to have Contractor act as the City's SC Agent, the Contractor and the City shall work cooperatively to revise this Agreement as necessary to effect the change.

12 Performance Evaluation.

The City will conduct evaluation/s of Contractor's performance. Ratings are ultimately the decision of the City and are not subject to negotiation with the Contractor. However, the Contractor may provide comments on a performance evaluation form if an evaluation is performed. When the City conducts performance evaluation(s) of the Contractor, such performance evaluation(s) shall not confer any express or implied rights upon Contractor, nor shall they shift any liability to the City for the Contractor's performance of the contract.

13 Reports.

Contractor shall submit written reports as requested by the City. Format for the content of such reports shall be determined by the Project Manager. The timely submission of all reports is a necessary and material term and condition of this Agreement. The reports, including any copies, shall be submitted on recycled paper and printed on double-sided pages to the maximum extent possible.

14 Department Liaison.

In performing the Services provided for in this Agreement, Contractor's liaison with the City will be: Jiayo Chiang, Project Manager.

15 Acceptance.

All deliverables under this Appendix A will be deemed and considered approved and accepted by the City within twenty (20) business days of delivery by Contractor (the "Acceptance Period") unless the City provided Contractor with a statement of errors within such Acceptance Period setting forth with specificity the errors contained in such deliverables. The City's failure to provide a written approval and acceptance or statement of errors within such Acceptance Period will be deemed an approval and acceptance of the deliverables. Any date set forth in this Appendix A for the completion of any Services may be delayed in the event that any delay in the performance of such Services relates to or will likely arise because the City is late in the performance of any of its obligations hereunder. If for any reason Contractor cannot perform its obligations with respect to the Services in accordance with the schedule set forth in this Appendix A, the Parties will mutually agree upon a revised schedule. Notwithstanding the foregoing, work performed by Contractor on a time and material basis shall be deemed accepted when completed.

Appendix A-1
Registered Generating Units

1. Generating Units:

- a. INTKEP 2 UNITS
- b. MARTIN_1_SUNSET

Appendix A-2
APXContact List

2. Primary and Back-up Contacts

		Contact	Work Phone	E-mail
Market Operations – Scheduling	Supervisor	Nino Mijares	888-896-8629	nmijares@apx.com
	Operations Desk		888-896-8629	helpdesk@apx.com
Account Manager		Cris Gallegos	408-517-2154	<u>cgallegos@apx.com</u>
Back-Up		Fesseha Lakew	408-517-2127	flakew@apx.com



APPENDIX A-3

CCSF CAISO Customer Specific Procedure

Confidential Information

The information contained in this document is confidential to APX Power Markets and its affiliates (APX). It can only be used and disclosed to APX employees, unless its disclosure is required to complete a required task. APX employees in possession of this procedure are under a continuing duty of care in the discussing, disclosing, storing, and disposal of this

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information. Proper disposal of out-of-date information is destruction. For additional information on the handling of this document refer to the APX document titled "Information Protection".

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2. Version History

Version	Date	Author	Details
1.0	07/03/2013	Nino Mijares	Creation of document
1.01	11/19/2013	Nino Mijares	Updated the Contact Information
1.02	01/10/2014	Nino Mijares	Replaced occurrences of Recurrent Energy with Duke Energy. Added Duke Energy contacts.
1.03	03/20/2014	Cris Gallegos	Updating to account for 15 minute scheduling
1.04	04/25/2014	Nino Mijares	General update for the CAISO Spring 2014 Release
1.05	06/26/2014	Nino Mijares	Updated Contact Information
1.06	05/06/2015	Nino Mijares	Most Updated Procedure from Production
1.07	05/06/2015	Nino Mijares/Cris Gallegos	Added language about having contact information for WECC to contact APX. Revised FRAC-MOO since CCSF does upward bidding. Added CCSF DART Manual Bids Procedure. Updated language for Planned Outages >7 days in advance notice and Forced Outages <7 days advance notice. Updated screenshots of outage template and webOMS approval of outage.

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3. Section I: CCSF – City and County of San Francisco

This procedure describes the roles and responsibilities of both the HHWP Operator and the APX Operator. The objective of this procedure is to ensure that the CAISO Scheduling Infrastructure and Business Rules (SIBR) application successfully receive CCSF schedule data.

This procedure covers:

- Day-Ahead Scheduling
- Real-Time Scheduling
- Outage Coordination
- Troubleshooting of Systematic Issues or Errors

Notes:

Hetch Hetchy Water and Power (**HHWP**) is the department under the City and County of San Francisco’s San Francisco Public Utilities Commission that is responsible for the generation and delivery of electric power to the CAISO controlled grid.

The CCSF Day Ahead Market (**DAM**) and Real Time Market (**RTM**) Schedules include:

- Energy Self-Schedules utilizing Transmission Ownership Rights (TOR)
- Energy Self-Schedules utilizing Existing Transmission Contracts (ETC)
- Inter-SC Trades
- Self-provided Ancillary Service (AS) capacity
- Real-time Energy Bids for accepted AS capacity
- All inter-tie schedules are scheduled in whole numbers only.

Market Operations Support Services

APX will provide (i) a telephone number, (ii) an email address and (iii) a fax number to which CCSF can direct the Western Electricity Coordinating Council (“**WECC**”), the CAISO, and CCSF’s customers or potential customers to call, fax or email questions relating to CCSF’s power market activities or services (any of such calls, faxes or mails, a “**Communication**”).

- APX will answer and receive the incoming Communications on CCSF’s behalf.

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- APX will document the content of the Communications and will notify the caller or sender that it will forward the information to CCSF for CCSF to respond to such Communication. Contractor shall not answer any CCSF business-related questions of callers or senders, and is not required to provide any additional assistance to callers or senders other than as described in this Appendix A-3.
- APX will promptly thereafter initiate contact to the designated staff on the CCSF Contact List and relay the contents of the Communication. APX will contact the designated CCSF staff by telephone call for issues that are deemed urgent ("**Urgent Issues**"). Communications with non-urgent issues will be emailed to the designated CCSF staff. In the event that APX is not able to contact the designated CCSF staff via phone for urgent issues, APX will email the designated CCSF staff with the contents of the respective Communications.
- In the event that the CCSF Contact List is exhausted with no response from CCSF's designated personnel, Contractor shall not be liable to CCSF provided that APX acts in a commercially reasonable manner in accordance with prudent utility practice to resolve Urgent Issues.
- APX will record all calls received on the telephone number and maintain tape copies of all such incoming calls. In the event that CCSF requests APX to retrieve the contents of such call(s), CCSF shall provide APX with at least seven (7) days' advance notice and shall pay APX costs associated with such retrieval on a time and materials basis at the hourly rate set forth below. APX shall provide the contents of such calls to CCSF through email as a voice file or in such other manner that the Parties may agree.
- For the purposes of this section, "Urgent Issues" means (i) CCSF's Day-Ahead or Real-Time schedules can't be submitted and accepted by CAISO market successfully, (ii) the Inter-SC trades between counterparties can't be matched/confirmed, and/or (iii) the energy self-schedules are not covered by the Existing Transmission Contract/Transmission Ownership Rights.

Day-Ahead Market (DAM) Scheduling

○ **HHWP Pre-Scheduler**

- Although schedules can be uploaded to the CAISO at least 7 days in advance, the standard scheduling process for weekly schedule submission is detailed below:
 - a. On Monday through Wednesday, HHWP Pre-scheduler produces complete and balanced schedules for the next trade day.
 - b. On Thursday, HHWP Pre-scheduler produces complete and balanced schedules for Friday and Saturday

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- c. On Friday, HHWP Pre-scheduler produces complete and balanced schedules in the SFPUC Scheduling system for Sunday and Monday.
 - d. **Note:** HHWP Pre-scheduler agrees to schedules verbally with counterparties and confirms hourly quantities prior to submitting a complete and balanced load and resource schedule in the SFPUC Scheduling system.
- o **HHWP Operator¹:**
 - o Exports the schedule data from SFPUC Scheduling system and performs the schedule upload using Schedule Transmit Tool (internal to SFPUC).
 - o Makes every effort to transmit schedules at 07:00 PPT and gives a courtesy call to APX Operations if circumstances forces the HHWP Operator from submitting past 07:30am PPT one (1) day prior to the trade date, but no sooner than seven (7) days prior to trade date and whenever there has been a revision to the schedules. If there was modification made to the schedules, HHWP Operator will communicate the changes made (i.e. hours and location).
 - a. After an XML file is submitted to APX via an Automated Programmatic Interface (API), the Web service performs an XSD validation of XML files and the Web service either confirms successful XML file submissions or rejects any XML file submissions which it determines are not valid.
 - If successful, a confirmation code will be displayed on the Schedule Transmit Tool.
 - If rejected, please refer to Section II to troubleshoot issues with the schedule data transfer.
- o **APX Operator**
 - o **Daily Tasks**
 - a. At 8:00am PPT daily, APX Operator checks the APX MarketSuite™ and/or CAISO SIBR to ensure that the ISO is successfully receiving CCSF schedules. This includes, but is not limited to, validating that TOR/ETC

¹ In the document, HHWP Operator refers to real-time power house operators

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schedules are balanced and are receiving priority and that ISTs are matched. APX Operations will use the CCSF DA Schedule Verification spreadsheet to confirm the balancing of the schedules, coupled with SIBR to check the priority and balancing of ETCs and TORs.

- b. Works with CCSF counter parties to resolve any Inter-SC Trade (IST) imbalances prior to the DAM deadlines.
- c. If there are any issues with the Bid/Offer and IST schedules submitted by HHWP, APX Operator notifies HHWP Operator by 8:30am PPT and works with the HHWP Operator and/or HHWP Pre-scheduler to resolve the issues.
- d. DA Bidding/Offers always take precedence over IST since the DA Bidding/Offers deadline is at 10:00am and the DA IST deadline is at 11:00am.

Table 1—Day Ahead Bidding/Offers Deadlines (TD-1)

Pre-schedule Deadline	HHWP Initial Upload Deadline	APX Schedule Verification Deadline	CAISO Deadline
07:30amPPT	07:30amPPT	08:30amPPT	10:00amPPT

Table 2—Day Ahead IST Scheduling Deadlines (TD-1)

Pre-schedule Deadline	HHWP Initial Upload Deadline	APX Schedule Verification Deadline	CAISO Deadline
07:30amPPT	07:30amPPT	08:30amPPT	11:00amPPT

Deadline Definitions:

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Pre-schedule	Time by which Pre-scheduler must submit the Day Ahead schedules into SFPUC Scheduling system
HHWP Initial Upload	Time by which the HHWP Operators must upload the SFPUC Scheduling system Day Ahead schedule file to APX via Web services
APX Schedule Verification	Time by which APX verifies schedule templates and ensures schedules are uploaded to CAISO successfully. APX notifies HHWP by this deadline if there are any issues with the schedules
CAISO	Time by which the CAISO must receive all schedules

If any issues are the result of SFPUC Scheduling system functionality failures or communications failure, the HHWP Operator contacts Ed Diaz at the phone number provided in Section IV, Table 3, below.

Notes:

- a. HHWP Pre-schedule Office Hours of Operation: 05:30 AM - 5:00 PM Monday through Friday (3:30 PM ~5 PM supported by San Francisco office).
 - b. APX Operations Desk is available 24/7.
- o Default Scheduling
- a. In the event that that HHWP does not transmit its Initial 07:30 AM PPT upload, and if attempts by APX Operations to contact either HHWP Pre-scheduling staff or Real-time operators by 08:15 AM PPT, then APX will submit HHWP's Default Schedule as defined in Subsection b below.

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b. In the event that APX Operations is unable to contact HHWP in regards to DA schedules not being transmitted, APX shall submit HHWP's Default Schedule accordingly.

- HHWP's Default Schedule is defined as the most recent HHWP schedules submitted to the CAISO for a like day, where like day will mean a Weekday, Saturday, or Sunday schedule per the following table.

Scheduling Day	Default Schedule
Non-Holiday Monday	Previous Friday (D-3)
Non-Holiday Tuesday	Previous Monday (D-1)
Non-Holiday Wednesday	Previous Tuesday (D-1)
Non-Holiday Thursday	Previous Wednesday (D-1)
Non-Holiday Friday	Previous Thursday (D-1)
Non-Holiday Saturday	Previous Saturday (D-7)
Sunday/Holiday	Previous Sunday

Note: Holidays as designated by NERC/WECC

- If there is an imbalance with a counterparty, APX Operations shall contact the appropriate parties via a phone call in attempts to resolve the imbalance. APX may identify the previous trade date used when speaking with counterparties such as PG&E, MID and TID to provide them the opportunity to copy forward schedules/tags if their scheduling/tagging system has the capability to do so.
 - APX would be able to determine the value of the Inter-SC Trade (IST) imbalance with a counterparty by verifying the status of the IST via the CAISO's SIBR Application. The Operator shall have the filters (Location, Trade Name, Product Type, From and To SC's, etc...) set to 'All', so that all trades (i.e. Trades CCSF has submitted and Trades that counterparties have submitted against CCSF) appear in the display.
 - APX will also verify whether or not the ETC/TOR schedules are balanced via the 'Ind Viewer' tab in the CAISO's SIBR Application. If there are any imbalances, APX Operator will

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troubleshoot accordingly and contact the counterparty if necessary.

- c. After APX Operations has executed "Default Scheduling", APX Operator shall attempt to contact HHWP Pre-Scheduler, followed by the HHWP Control Room via phone and email the following contact lists to inform them of the actions taken by APX. (Note: See Section IV, Tables 3 and 4 for contact numbers).
 - APX Operations will periodically make attempts to get in contact with the HHWP Control Room to inform HHWP of the trade date the Default Scheduling was acted upon. If needed, APX will communicate the generation schedule via phone, email and/or fax the schedule over the Control room if communication has been restored.
 - Once the DAM Results have published into APX MarketSuite and the DAM awards have been automatically copied over to the Real-Time Market for Trade Day +1, CCSF will use their Scheduling system software to upload their RTM schedule to MarketSuite. Following the submittal, APX Operations will verify that CCSF's generation schedules, Intertie schedules and Energy Market Bids were uploaded successfully in SIBR.

FRAC-MOO Weekend/Holiday Scheduling

For weekends and holidays, the CCSF pre-scheduler will prepare and send FRAC-MOO PH instruction spreadsheet for multiple days to APX Operator (HelpDesk@APX.com) by 14:30 one day ahead. (Take Friday example, Friday active pre-scheduler will prepare FRAC-MOO PH instruction for Sunday and Monday assuming the FRAC-MOO bids are fully awarded for both Sunday and Monday).

Sample of the Excel spreadsheet sent by CCSF Pre-Scheduler:

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o **Before 14:00PT**, APX Operator will check INTKEP_2_UNITS's energy bid awarded for Sunday on Saturday. Ops will verify the awards by using the **CCSF Energy Market Awards** worksheet.

a. If DA energy bids are **NOT fully awarded for upward bidding (fully awarded for downward bidding)**, APX Operations will email HHWP Operator the FRAC-MOO PH instruction for Sunday **by 1400PT**. Confirm receipt of email with the HHWP Operator.

- CCSF Weekend Email List:

- o To: mph@sfwater.org
- o Cc: LChang@sfwater.org; JChiang@sfwater.org; REvans@sfwater.org; SKJones@sfwater.org; EMyers@sfwater.org; nmijares@apx.com; helpdesk@apx.com

b. If DA energy bids are **fully awarded for upward bidding (NOT fully awarded for downward bidding)**, call the designated pre-scheduler **before 1400PT** without sending the FRAC-MOO instructions to the HHWP Operator

- If the CCSF designated pre-scheduler cannot be reached at 1400PT, APX Operator will escalate to one of the other backup pre-schedulers.

Date	Designated Pre-scheduler	Backup Pre-scheduler	Backup Pre-Scheduler
Monday & Tuesday	Robert Evans (209) 989-2043	Robert Evans (209) 743-9593 (c)	Suni Jones (415) 722-3495 (c)

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Wednesday	Suni Jones (415) 554-1575	Suni Jones (415) 722-3495 (c)	Jiayo Chiang (530) 304-4228 (c)
Thursday & Friday	Ed Myers (209) 989-2176	Ed Myers (209) 768-8290 (c)	Robert Evans (209) 743-9593 (c)
Saturday & Sunday (Day 1-15)	Robert Evans (209) 743-9593 (c)	Jiayo Chiang (530) 304-4228 (c)	
Saturday & Sunday (Day 16-31)	Jiayo Chiang (530) 304-4228 (c)	Robert Evans (209) 743-9593 (c)	

Note: Day 1-15 and Day 16-31 is NOT for flow date, but actual day. Example: When working on Saturday February 21 and escalation is needed, the designated pre-scheduler is Jiayo Chiang.

Note: If a Holiday falls on a weekday, escalate the designated pre-scheduler. Example: When working on Monday February 16 is (Presidents' Day), and escalation is needed, the designated pre-scheduler is Robert Evans.

- If the CCSF pre-schedulers cannot be reached by 1500PT, APX will email the FRAC-MOO instruction to the HHWP Operator
- c. Repeat the above steps for Monday's schedule on Sunday.

CCSF DA/RT Manual Bids Procedure

Due to CCSF's programmatic limitations of altering the Scheduling system, CCSF has requested that APX alter their DA and RT submissions so that instead of engaging in downward bidding for FRAC-MOO, they will engage in upward bidding for FRAC-MOO.

Day-Ahead Market Changes

At 0800PT, after CCSF has uploaded their DAM TD+1 submission, APX Ops will start the process of changing CCSF's Bid/Offer submissions. Upon the steps APX will make are:

1. For the hours and MW quantities submitted for INTKEP_2_UNITS Spin AS Bid, APX will add the same hours and MW quantities for both the INTKEP_2_UNITS CCSF_5033 ETC and CLAP_CCSF_CCSF CCSF_5033 ETC locations.

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2. The increase in INTKEP_2_UNITS will cause the 1st and 2nd energy bid curve points to increase by the same MW quantities for the same hours, and APX will change the price points accordingly to \$999.00 for all hours with the existing energy bid curve.
3. APX will also remove the entire submission at the DLAP_PGAE_CCSF location.
4. All the changes above will be created in XML form via an Excel spreadsheet that enables the math and creation of XML files for the locations affected. **Note:** Both DAM and RTM XML values are created.
5. With the new XML created values, APX will replace the original XML values submitted by CCSF.
6. APX will upload the new revised XML file through MarketSuite, which in turn will upload values into CAISO's SIBR.

All of the changes above will ensure CCSF will be participating in FRAC-MOO in an upward bidding behavior and return the balancing of their sources and sinks.

Real-Time Market Changes

At 1430PT, after CCSF has uploaded their RTM TD+1 submission, APX Ops will start the process of changing CCSF's Bid/Offer submissions. Upon the steps APX will make are:

1. Since INTKEP_2_UNITS CCSF_5033 ETC was added in the DAM, the same values will have to be entered in RTM TD+1.
2. The increase in INTKEP_2_UNITS will cause the 1st and 2nd energy bid curve points to increase by the same MW quantities for the same hours, and APX will change the price points accordingly to \$999.00 for all hours with the existing energy bid curve. Note: The assumption of fully awarded AS self-provision is taken into account in the bid curve.
3. APX will also remove the entire submission at the INTKEP_2_UNITS location that does not have any ETC/TOR.
4. With the new XML created values, APX will replace the original XML values submitted by CCSF.
5. APX will upload the new revised XML file through MarketSuite, which in turn will upload values into CAISO's SIBR.

Caveats to the Procedure

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1. APX will perform all the above **after** CCSF has submitted via its Scheduling system for the respective market.
2. If CCSF makes changes to DAM after 0800PT or 1430PT (for RTM TD+1), CCSF will have to inform APX, so new values can be populated for the new XML.
3. CCSF will not be able to submit intraday RTM changes or it will overwrite APX changes.
4. Any uploads by CCSF without APX knowledge will result in submissions that CCSF does not intend to make will overwrite previous submissions.

HASP/RTM Scheduling

Per the CAISO tariff's timeline, the CAISO publishes the DAM schedules by **1:00pm PPT daily**. Once the DAM schedules are published, the HASP/RTM opens for Market Participants to begin submitting HASP/RTM bids and schedules for the following day. In addition, HHWP Operator must resubmit HHWP's Day Ahead Schedule in the HASP/RTM by 3:00 p.m. in order to protect CCSF from CAISO congestion charges.

This section **describes a new HASP/RTM Schedule Submittal Process for the HHWP Operator** as well as the HASP/RTM Scheduling Changes and Real-Time Dispatches during real-time.

Note: Load schedules cannot be changed/re-submitted in the HASP and RTM. Enter the Bid/Offer and Schedules accordingly and ensure that the information is uploaded to SIBR appropriately.

- **HASP/RTM Schedule Submittal Process**
 - A new process—the HASP/RTM Schedule Submittal Process – requires the HHWP Operator to upload the CCSF DA schedules and RT Bids in HASP/RTM.
 - At 3:00pm PPT DAILY, the HHWP Operator exports the DA schedule data from SFPUC Scheduling system and uploads the schedule in the RTM using the Schedule Transmit Tool.
 - Schedules that need to be submitted in RT include:
 - Generation schedules
 - Note: INTKEP Unit only.
 - Schedules for Sunset Solar should be suppressed in RTM whenever the Sunset Solar project participates in the CAISO's Participating Intermittent Resource program (PIRP). The resource

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will be scheduled hourly according to the latest CAISO PIRP forecast via the APX MarketSuite PIRP Integration process.

- Import/Exports inter-tie Schedules
- Real-time Energy Bids for awarded Spin and Non-Spin Capacity
- By 16:00PPT daily an APX Operator will confirm whether the HASP/RTM schedules are submitted successfully to the ISO and ensures schedules protected in the DAM with CRNs for ETCs and TORs are protected in the RTM and that there are energy bid curves that cover range of DA awarded AS.

Table 4—DA Re-submittal and RT Bids Upload Deadlines

HHWP DA Schedules Re-submittal Deadline	HHWP RT Bids upload Deadline	APX Schedule Verification Deadline	CAISO HASP/RTM Bid/Offers Deadline
03:00pm PPT	03:00pm PPT	04:00pmPPT	T-75 before start of each HE

Deadline Definitions:

- HHWP DA Schedules Re-submittal** Time by which HHWP Operators must resubmit (upload) the Day Ahead Schedule file to APX for submittal into the Hour Ahead/Real-time Market.
- HHWP RT Bids Upload Deadline** Time by which the HHWP Operators must upload the RT Bids file to APX for submittal into the Hour Ahead/Real-time Market.
- APX Schedule Verification Deadline** Time by which APX verifies schedule templates and ensures schedules are uploaded to CAISO successfully. APX notifies HHWP by this deadline if there are any issues.

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CAISO Deadline

Time by which the CAISO must receive all schedules

- If there are any issues submitting schedules in RT, the APX Operator and HHWP Operator refer to the Contingency Plans found in Section III to resolve the issue.
- **HASP/RTM Scheduling Changes**
 - If HHWP needs to make any HASP/RTM scheduling changes, the Operator should notify APX as soon as the schedule data is uploaded via the APX Web services.
 - HHWP Operator:
 - Updates SFPUC Scheduling system and exports the schedule data from SFPUC Scheduling system and performs the schedule upload using Schedule Transmit Tool (internal to SFPUC) by T-120 minutes prior to close of the Hour.
 - Gives a courtesy call to APX Operations to alert them of the schedule change. HHWP Operator will communicate the changes made (i.e. hours and location).
 - When the APX Web service receives the submitted XML file, the Web service performs an XSD validation of XML files and the Web service either confirms successful XML file submissions or rejects any XML file submissions which it determines are not valid.
 - If successful, a confirmation code will be displayed on the Transmission Tool.
 - If rejected please refer to Appendix I to troubleshoot issues with the schedule data transfer.
- APX Operator
 - Checks the APX MarketSuite™ and/or CAISO SIBR to ensure that the ISO successfully receives HASP/RTM schedules.
 - Works with CCSF counter parties to resolve any Inter-SC Trade (IST) imbalances.

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- If there are any issues with the Bid/Offers and IST schedules that HHWP submits, APX Operator works with the HHWP Operator and/or HHWP Pre-scheduler to resolve the issues.
- If any issues is determined to be a result of a failure by SFPUC Scheduling system, the Schedule Transmit Tool, or a system communications failure, the HHWP Operator should contact Ed Diaz at the phone number provided in Section IV, Table 3.
- Hour-Ahead / Real-Time Contact Information
 - HHWP Powerhouse (Real-Time Operations) – Monday through Friday, 03:30 PM - 05:30 AM, and all day on Weekends and Holidays.
 - APX Operations Desk is available 24/7.

(See Section IV, Table 4)

Note: If HHWP Operator needs to make any DA or RT schedule changes after the APX deadlines, they must call APX Operations for assistance. The APX Operator will make best-effort attempts to get all last minute changes up to the CAISO. The APX deadlines in Tables 1, 2, and 3 provide some cushion to allow APX Operator adequate time for processing schedule changes and troubleshooting issues if necessary.

○ **Real-Time Dispatch Instructions - INTKEP**

- APX Operator occasionally receives Real-Time Energy dispatches via the CAISO Automated Dispatch System (ADS). Pursuant to the Operations Agreement between the CAISO and SFPUC, CCSF is required to respond to the dispatch instruction if the following criteria are met. Please ask the CAISO Generation Desk the following questions:
 1. Has the CAISO made best efforts to dispatch all other sources of Operating Reserves prior to dispatching HHWP Generation? If yes continue, else go to 4.
 2. Has a system contingency occurred that requires dispatch of energy from INTKEP to meet applicable reliability criteria or is a Stage Three System Emergency imminent that requires dispatch of INTKEP to prevent involuntary load curtailments? If yes continue, else go to 4.
 3. Inform the CAISO Generation Desk that APX will contact the CCSF to respond unless it is unable to do so due to electrical supply, water supply, water quality or operational constraints. The APX Operator calls and

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relays the dispatch to the HHWP Operator. The HHWP Operator implements the dispatch instruction unless the HHWP generation is unable to respond due to electrical supply, water supply, water quality or operational constraints; in this case go to Step 4. Otherwise, end of scenario.

4. The APX Operator informs the CAISO Generation Desk that CCSF will not respond to the dispatch instruction per its Operating Agreement with the ISO.

o **Hourly Pre-Dispatches – Interties (Exports)**

- o Following a receipt of the hourly pre-dispatch for any of CCSF intertie schedules the APX Operator should perform the following:
 - Verify that the dispatch amount (i.e. 'Hourly DOT') matches the DAM/HASP schedule.
 - DO NOT ACCEPT any pre-dispatches unless there are expected changes (i.e. intentional increases/decreases to schedules). CCSF will communicate to APX of any changes to their intertie schedules as those instructions will need to be accepted, otherwise the ISO will cut the tag or schedule (whichever is less).
 - APX Operations is to consult CCSF personnel for any inquiries/issues regarding their intertie schedules. Any unexpected schedule deviations (i.e. reductions in schedule/cuts) should be communicated to CCSF personnel immediately. CCSF will advise APX Operations on any actions to take (if any).

Note: In the event that APX is notified in advance of a potential schedule cut (i.e. Priority and/or Balancing flag has been changed to "NO" in SIBR, APX will escalate to CCSF to alert them of matter.

Plant Outages

Market Participants use the CAISO's webOMS application as the primary method to schedule and obtain approval of planned Outages, report any changes to Generating Unit availability, and provide explanations of Forced Outages. This section outlines the responsibilities for both APX Operator and HHWP Operator to ensure that outages are submitted to the ISO on time. If while

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providing webOMS support, APX feels that the 60 min deadline may be breached, APX should call the ISO to inform them that a webOMS card is in progress and the contributing factors as to why the webOMS card may not be submitted on time.

o **Forced Outages**

- o Forced outages are any derates or unit trips that occur less than seven (7) business days before the start of the outage. Forced Outages must be reported to the CAISO within 60 minutes from the start of the outage.
- o In the event that a unit trips or a HHWP Operator/Duke Energy decides that it is necessary to derate a unit, the HHWP Operator/Duke Energy calls APX Operations within 10 minutes of the event. Reporting of forced outages is the responsibility of the HHWP Operator/Duke Energy.
- o The HHWP Operator gives APX Operations the following information regarding the event.
 - The time that the event occurred
 - The Operator's estimate as to the necessary time needed to restore the unit to normal service
 - The cause of the outage
 - Total MWs of the derate and the new PMax in MWs of the aggregated plant
 - Often the HHWP Operator/Duke Energy does not immediately know what the root cause of a generation problem is. In that case, the best information that can be given to APX may be incomplete. As soon as additional information is known, the HHWP Operator/Duke Energy must notify APX.
- o APX initiates a webOMS ticket entry into the CAISO webOMS application to report a change in unit availability.
- o As soon as reasonably practical after completing essential tasks to respond to the outage, but no later than 25-minutes after the outage occurs, the HHWP Operator/Duke Energy must complete the **HHWP Outage Form (INTKEP), webOMS template (Sunset)** and email it to APX Operations at helpdesk@apx.com, copying retail@sfgwater.org. This form serves to validate the

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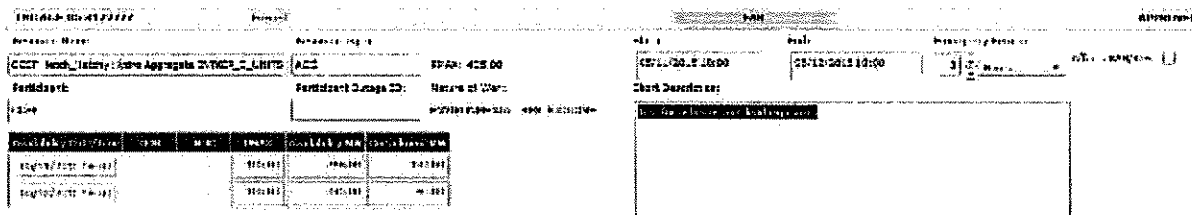
webOMS entry and provides additional information that may be necessary in case of a CAISO settlements dispute. The operator submitting the outage form to APX should require a return receipt on their email to ensure it is properly received by APX.

Example of Outage Request

Participant Name*	CCSF			Short Description Work to be done on generator Check High Voltage bus and conduct for line 47 where an insulator
Outage Date*	Energized			
Resource*	INTRE_2_UNITS			
Start Date/Time*	Date	Time	18:45	
End Date/Time*	6/24/2015		19:00	
Discovery Date/Time*	5/23/2015		10:36	
Emergency Return Time/Type*	Number	Time Frame		
	1150	Durative		
Nature of Work*	PLANT_MAINTENANCE			Answer(s) Allowed Hold Power House Unit 52

Aggregate MW	175
Availability Duration (Days/Hours)	170
Outage Classification (MW)	

- o APX updates webOMS ticket in webOMS with the updated information received from the HHWP Operator.
- o APX replies to the email with a screenshot of the outage once it has been approved, also requesting a return receipt. At the same time APX copies the CCSF distribution list in Section IV, below:
 - Table 5: Moccasin Distribution List
 - Table 6: Sunset Solar Distribution List



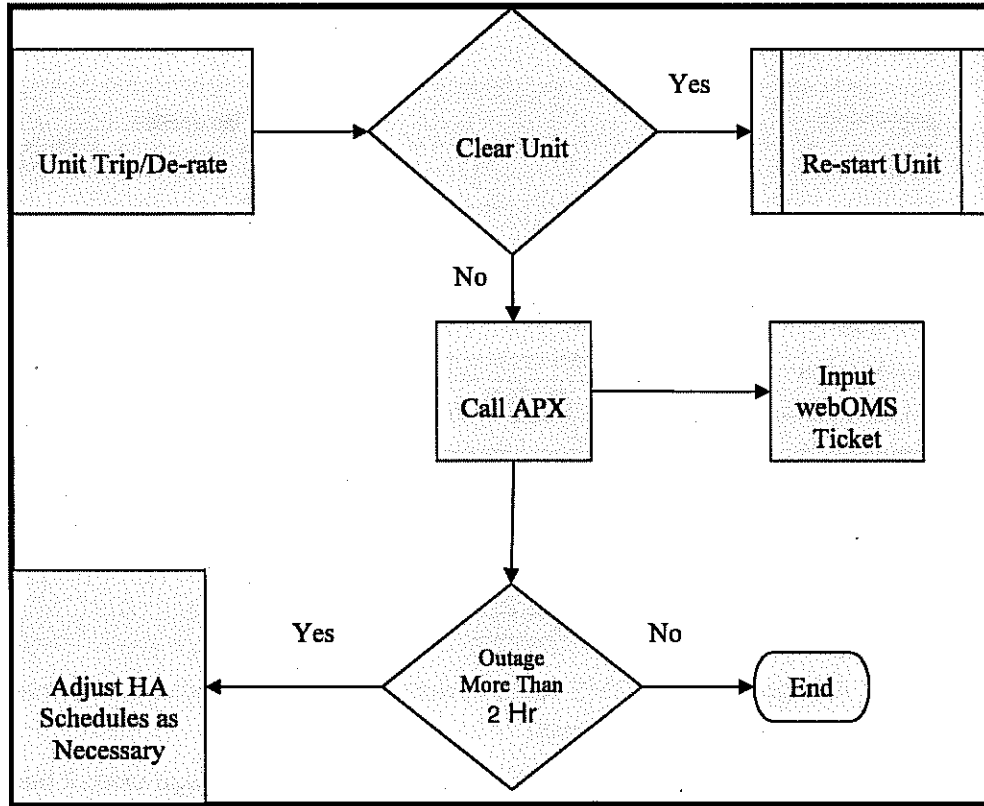
The screenshot shows the webOMS interface with the following details:

- Participant Name: CCSF
- Outage Date: Energized
- Resource: INTRE_2_UNITS
- Start Date/Time: 6/24/2015 18:45
- End Date/Time: 6/24/2015 19:00
- Discovery Date/Time: 5/23/2015 10:36
- Emergency Return Time/Type: 1150 Durative
- Nature of Work: PLANT_MAINTENANCE
- Short Description: Work to be done on generator
- Answer(s) Allowed: Hold Power House Unit 52

Below the form, there is a table with columns: Date, MW, and Status. The table contains two rows of data.

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Forced Outage Flow Chart



Scheduling changes Due to Unplanned events, outages, and/or derates

1. In cases where the decrease in generation does not fall below the current generation schedule, no immediate action is required. Example: Hetch Hetchy has a 120MW energy schedule RTC ('Round The Clock) and 20MW of Self Provided AS. An issue arises which prevents the unit from generating above 180mws. Since the 120MW energy schedule and headroom required to meet the AS capacity can still be met, a webOMS de-rate entry must be submitted but no immediate scheduling action is necessary.

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2. In cases where the de-rate will prevent the forward schedule from being met, **and the condition is expected to last in excess of two hours**, in addition to producing a webOMS form and emailing it to APX operations, the HHWP Operator can elect to change schedules with the ISO. This is generally done in the HHWP SFPUC Scheduling system, but if timelines for submittal are close and the changes are minimal, the HHWP operator may choose to contact APX Operations with the revised schedules. The APX Operator then enters the changes directly into the APX MarketSuite™.
3. If the HHWP Operator determines that schedule changes in the CAISO market are unnecessary, differences between the DA and HA schedules and the actual operation will be settled as CAISO imbalance energy.

o **Planned Outages**

- o When HHWP Operator/Duke Energy becomes aware of a maintenance issue that can be postponed for at least seven (7) business days, which will affect generation, a HHWP Senior Operator or Duke Energy must submit a Planned Outage request to APX Operations.
- o The HHWP Senior Operator/Duke Energy gives APX the following information regarding the event.
 - What time will the event occur?
 - How long will the plant be out of service or have reduced P-Max?
 - What is the reason for the outage?
 - Total MW's of the derate?
 - P-Max in MW's during the outage?

Subsequently, the HHWP Senior Operator or Duke Energy completes the applicable **HHWP Outage Form (INTKEP)**, **webOMS template (Sunset)** and emails it to the APX real-time desk at helpdesk@apx.com. This form serves to validate the webOMS entry and provides additional information that may be necessary in case of a CAISO settlements dispute.

- o APX creates the webOMS ticket entry into the CAISO webOMS application to report the Planned Outage request.

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- APX replies to the email with a screenshot of the outage once it has been approved, also requesting a return receipt. At the same time APX copies the CCSF distribution lists in Section IV, below:
 - Table 5: Moccasin Distribution List
 - Table 6: Sunset Solar Distribution List
- Per the CAISO's outage submission timeline, all Planned Outages must be submitted by 11:30am PDT and at least seven (7) business days prior to the beginning of an outage to be considered a Planned Outage. Outage Requests that are submitted 72 hours in advance but after 11:30am PDT is considered FORCED by the CAISO.

Common reasons for submitting a PLANNED outage include:

- Maintenance work
- Unit testing
- Seasonal derate

Section II – Troubleshooting Schedule Data Transfer Issues

Occasionally the process to transfer schedule data from the SFPUC Scheduling system to the APX Web service fails. The following tables contain error messages that can be encountered, a description of the root cause, and actions necessary to correct the error.

SFPUC Scheduling **System to APX MarketSuite™ Error Troubleshooting**

HHWP uses the Schedule Transmit Tool to upload files to the APX MarketSuite™. The file unique identifier confirms successful receipt of the CCSF schedules after XSD validation is performed on the XML files.

- The XSD validation rejects any XML file submissions which are not valid.
- The returned error messages includes the validation details

Table AP-1:

Error	Causes	Actions
-------	--------	---------

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Failed XSD validation	The FRUploadService performs XSD validation on uploaded files. If the file fails XSD validation the validation results are returned indicating the problems with the XML file. This means something is wrong with one of the element of the file.	HHWP Operator to recheck the file and resubmit. CCSF Operator contacts CCSF Pre-scheduler or Ed Diaz if it is an issue with the Schedule file.
-----------------------	---	--

Table AP-2: APX MarketSuite™ to CAISO SIBR Error Message Troubleshooting

Error	Causes	Actions
IST Trades Unmatched	An IST trade entered with a counterparty is not matched	APX Operations works with the Counter party to resolve issues. If CCSF entered incorrect schedule data, APX Operations notifies CCSF to get the issue corrected
Contract Reference Numbers (CRN) not balanced and/or matched	MW quantities submitted for an individual hour using the same CRN are not equal	APX Operator notifies HHWP Pre-scheduler when the CRN is not balanced is internal (among their own ETC/TOR) or notifies PGAE when the CRN is not balanced is external
Error in Submitting Schedule	Trading is closed for the period.	Contact APX Operations to see if the market is closed

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Reached Facility Limit	The value entered exceeded the P-Max in Master File	CCSF needs to check schedules and re-submit
------------------------	---	---

Web Services File Upload Troubleshooting

1. Web service Communication issues
 - a. If the primary Web service is unavailable or not functioning properly, APX Web service fails-over to a back-up Web service. This back-up is seamless to CCSF and no actions are required by CCSF.
 - b. If HHWP Operators have any issue uploading the schedule data via the Web services, then HHWP operators must call APX Operations (888-896-8629) and either email the SFPUC Scheduling system schedule file to APX Operations at helpdesk@apx.com, fax the schedules, or verbally communicate them.
 - c. For specific questions related to the schedules produced by SFPUC Scheduling system, the HHWP Operator contacts the HHWP Pre-schedule Office.
 - d. If any of the above problem situations are caused by SFPUC Scheduling system functionality failures or system communications failure, the HHWP Operator contacts Ed Diaz.
2. Verify a Schedule Uploaded via Web services
 - a. APX Operator logs onto the Platform Explorer to review the "APX Bid/Offer API" and ensures that schedules were successfully received from the Web service and subsequently transferred to the APX MarketSuite™.
 - URL for "APX MarketSuite™ " <https://marketsuite.apx.com>
 - User Name and Password = password database
 - b. APX Operator reviews submitted files by going to

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MarketSuite™ → Applications → File Explorer

APX MARKETSUITE™

Platform Explorer

Find Files

Region: MRTU

Market Participant: CCSF

Date: Operating Date

From Date: 11/17/2008 To Date: 11/17/2008

Category: Scheduling

SubCategory: All Select

APX APIs
ISO Template Submissions
ISO Template Retrievals

File Version: Most Recent All

Find Files

c. APX Operator enters selection criteria, find files, select the file you want to view

Platform Explorer Reports | Files

Group files by: No Grouping

29 Files matching criteria: Scheduling, Operating Date 11/14/2008 - 11/14/2008

<input type="checkbox"/>	Name	Source	Operating Date
<input type="checkbox"/>	APX End/OTter API	Client DAM	11/14/2008 12:00:00 AM
<input type="checkbox"/>	APX End/OTter API	Client RTM	11/14/2008 12:00:00 AM

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- d. In the Source column, any name that begins with "Client" is submitted by CCSF, any report name beginning with "APX" comes from APX and any report name that begins with "SIBR" or "CMRI" comes from the ISO.
- e. APX Operator selects the file he/she wants to view or verify and downloads the XML file to view its content.

Section III – Contingency Plan for Scheduling

Depending on the scenario, contingency plans are put into place to ensure CCSF schedules are successfully submitted to the ISO in an event of system issues occur (CCSF, APX and/or CAISO) that disrupt the normal scheduling process flow. This section describes the steps APX Operator takes to manually submit schedules via the APX MarketSuite™ and CAISO's SIBR.

A few communication issues might include:

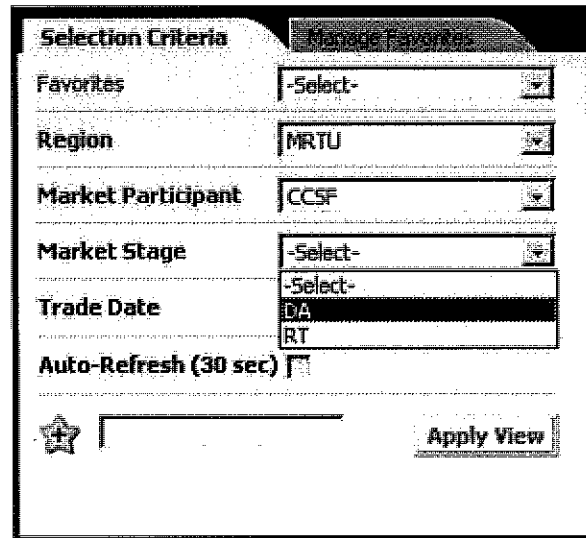
- Communication Issues with Web Service
- File Transfer Issues between SFPUC Scheduling system and APX MarketSuite™
- File Transfer Issues between APX System and APX MarketSuite™
- File Transfer Issues between APX MarketSuite™ and CAISO SIBR

Enter and submit schedules using APX MarketSuite™

1. APX Operator logs in to the APX MarketSuite™.
2. APX Operator retrieves the Bid/Offer and IST XML files from the APX Platform. If there are communication problems receiving the XML files from HHWP Operator, APX Operator requests the XML files from HHWP Operator.
3. APX Operator attempts to upload the XML into the APX MarketSuite™ via File Upload.
 - a. To upload, APX Operator escalates to APX Operations Supervisor.
 - b. In the interim, the File Upload feature is limited to only the APX Operation Supervisors.
 - c. If file upload is unsuccessful, APX Operator proceeds to Step 4 to manually schedule in the APX MarketSuite™.

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- APX Operator takes DA or HASP/RT Schedules and selects the appropriate Market stage.



- APX Operator selects Bid/Offer screen to input all Generation, Import/Export inter-tie schedules, load schedules (DA only), A/S self-schedules, and RT Bids for awarded Spin and Non-Spin Capacity (RT only).

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Bid ID	Bidder	Bid Type	Bid Price	Bid Quantity	Bid Status	Bid Details
1000000001
1000000002
1000000003
1000000004
1000000005
1000000006
1000000007
1000000008
1000000009
1000000010
1000000011
1000000012
1000000013
1000000014
1000000015
1000000016
1000000017
1000000018
1000000019
1000000020
1000000021
1000000022
1000000023
1000000024
1000000025
1000000026
1000000027
1000000028
1000000029
1000000030

a. For Bids/Offers with multiple CRNs for TORs and ETCs at a single location, APX Operator ensures all CRNs for TORs and ETCs are added by clicking on the Details box and entering CRNs in the available rows.

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Bid/Offer Details				
Select Schedule				
Build new Schedule				
03202349 1101 INTKEP_2_UNITS				
Add Row				
Qty	MW	Contract ID	Est ID	Source
10	101.00	CCSF_5031		
10	70.00	HHWP_5102		
10	30.00	HHWP_5103		
10	11.00			
Apply Defaults				

- b. For RT Bids, APX Operator selects Location: INTKEP_2_UNITS, Product Type: Energy and Schedule Type: Market
- i. First quantity = Total INTKEP Gen Schedule
 - ii. Second quantity = Total INTKEP Gen + Total A/S Self Schedules Awarded for Spin and Non-Spin
 - iii. Price = \$999.00

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create/edit curve			
Hour Ending: 01	Trade Date: 09/09/2011	Location: IITKEP_2 UNITS	Product: Energy
Start	#	MW	\$/MWh
HED1	1	244.30	999.00
	2	249.50	999.00
End	3		
HED1	4		
	5		
	6		
	7		
	8		
	9		
	10		

Apply Curve

6. For IST, APX Operator selects "Trades" tab to enter IST with CCSF counter-parties.
7. After APX Operator manually enters DA Bid/Offer and IST into the HASP/RTM, APX Operator submits schedules to the CAISO.
8. APX Operator verifies HASP/RTM schedules to ensure that all CRN's for ETCs and TORs are attached and the RT bids are successfully submitted.

Enter and submit schedules using CAISO SIBR

1. APX Operator schedules in CAISO SIBR only when:
 - a. APX system cannot communicate with the CAISO or
 - b. CCSF sends APX schedule files, but APX cannot create XML
2. APX Operator logs onto CAISO SIBR.
3. APX Operator prioritizes scheduling. As noted before, DA Bidding/Offer always take precedence over IST since the DA Bidding/Offer deadline is at 10:00am and the DA IST deadline is at 11:00am.

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4. If possible, APX Operator splits scheduling duties with APX Operations Supervisor or another APX Operator on shift.
5. APX Operator performs the same steps from the *Enter and Submit Schedules using APX MarketSuite™* section, but manually enters the appropriate schedules in CAISO's SIBR.
6. Note: Because of the effort it takes to manually schedule directly in SIBR, APX Operator makes a judgment call no later than 08:30 TD-1 as to whether or not this process is necessary. If necessary, APX Operator starts the process—if the systems are fixed, APX Operator uploads schedules to overwrite any manual work entered in SIBR.

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CCSF Contact Information

Section IV
City Contact Lists

Table 1. Authorized Users:

	Work	Cell	Email
Robert Evans	(209) 989-2043	(209) 743-9593	REvans@sfgwater.org
Ed Myers	(209) 989-2176	(209) 768-8290	EMyers@sfgwater.org
Suni Jones	(415) 554-1575	(415) 722-3495	SKJones@sfgwater.org
Jiayo Chiang	(415) 554-0709	(530) 304-4228	JChiang@sfgwater.org
Lance Chang	(415) 554-2486		Lchang@sfgwater.org
PH Operator	(209) 989-2099	(209) 989-2146	MPH@sfgwater.org
Darryl Dunn	(415) 554-3234		DDunn@sfgwater.org
Daniel Heffernan	(415)-554-2446		DHeffernan@sfgwater.org
Reynaldo Barrera	(415) 934-5743		RBarrera@sfgwater.org
Randi Brito	(415) 554-2491		RBrito@sfgwater.org

Table 2. Primary and Back-up Contacts

		Contact	Work Phone	Cell Phone	E-mail
Communications and Information	Primary	Jiayo Chiang	415-554-0709	530-304-4228	Jchiang@sfgwater.org
	Back-up	Robert Evans	209-989-2043	209-743-9593	REvans@sfgwater.org
Scheduling and Trades	Primary	Jiayo Chiang	415-554-0709	530-304-4228	Jchiang@sfgwater.org
	Back-up	Robert Evans	209-989-2043	209-743-9593	REvans@sfgwater.org
Metering and Meter Data	Primary	Darryl Dunn	415-554-3234		DDunn@sfgwater.org
	Back-up	Daniel Heffernan	415-554-2446		DHeffernan@sfgwater.org
Settlements	Primary	Reynaldo Barrera	415-934-5743		RBarrera@sfgwater.org
	Back-up	Randi Brito	415-554-2491		RBrito@sfgwater.org
Market Operations	Primary	Jiayo Chiang	415-554-0709	530-304-4228	Jchiang@sfgwater.org
	Back-up	Sunita Jones	415-554-1575	415-722-3495	SKJones@sfgwater.org
Collateral	Primary	Jiayo Chiang	415-554-0709	530-304-4228	Jchiang@sfgwater.org
	Back-up	Sunita Jones	415-554-1575	415-722-3495	SKJones@sfgwater.org
Support and	Primary	Darryl Dunn	415-554-3234		DDunn@sfgwater.org

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Maintenance	Back-up	Jiayo Chiang	415-554-0709	530-304-4228	Jchiang@sfwater.org
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Table 3. Pre-scheduling Contacts

Contact	Name	Phone
Primary	Robert Evans	(209) 989-2043
Back Up	Ed Myers ^[1]	(209) 989-2176
Back Up	Sunita Jones	(415) 554-1575
Back Up	Jiayo Chiang	(415) 554-0709
Back Up	Lance Chang	(415) 554-2486
Technical Issues	Eduardo Diaz	(209) 989-2169
Technical Issues	Darryl Dunn	(415) 554-3234
APX Scheduling Desk	APX Operations	(888) 896-8629

Table 4. Real-Time Operations Contact List

Contact	Phone
Primary - MPH	(209) 989-2099
Back-Up	(209) 989-2146
APX Scheduling Desk	(888) 896-8629

Table 5. Moccasin Distribution List

Name	E-mail address
Pat Griffin	pgriffin@sfwater.org
Robert Evans	revans@sfwater.org
Jiayo Chiang	jchiang@sfwater.org
Ed Myers	emyers@sfwater.org

^[1] Ed Myers is the primary contact every Friday.

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Sunita Jones	SKJones@sfwater.org
Dan Mason	dmason@sfwater.org
Karl Shaffer	kshaffer@sfwater.org
Retail Services Group	retail@sfwater.org
HHWP Operations	mph@sfwater.org

Table 6. Sunset Solar Distribution List

Name	E-mail address
Robert Evans	revans@sfwater.org
Ed Myers	emyers@sfwater.org
Jamie Seidel	jseidel@sfwater.org
Retail Services Group	retail@sfwater.org
Jiayo Chiang	jchiang@sfwater.org
Lori Mitchell	lmitchell@sfwater.org
Andrew Griffiths	Andrew.Griffiths@recurrentenergy.com
Thomas Kelley	Thomas.kelley@recurrentenergy.com
Duke Energy	solarmonitoringgroup@duke-energy.com

Table 7. Contact List for Duke Energy

Contact	Phone
Renewable Energy Monitoring Group	(704) 382-5920 (704) 382-4169 solarmonitoringgroup@duke-energy.com
Tom Paff (Solar Manager)	(704) 382-7849

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**APPENDIX B
COMMUNITY BENEFITS**

1. Community Benefits Plan and Timeline.

- 1.1. Within three months following the Effective Date of this Agreement, the Contractor shall develop and submit to City a Community Benefits Plan and Timeline that identifies the Contractor's representative for purposes of undertaking and completing the Community Benefits Plan and Timeline. The Contractor may change the Community Benefits representative by notifying the City in writing.
- 1.2. The Community Benefits Plan and Timeline will provide details regarding expenditures, a schedule, and timelines related to the Community Benefits Commitments described below. Contractor will develop the Community Benefits Plan and Timeline with the necessary flexibility relating to timing, expenditure of funds, partners, strategic delivery, scale, and performance of Community Benefits Commitments to best achieve positive community impacts.
- 1.3. City and the Contractor shall meet at least once a year during the term of the Agreement to discuss the Community Benefits Plan and Timeline, and make any adjustments or updates as necessary.

Community Benefits Summary Table

Description of Community Benefit	Community Partner	Expected Outcomes	(A) Volunteer Hours	(B) Volunteer Hourly Rate	(C) Volunteer Contribution (A+B)
Environment Program	Center for Resource Solutions	Promote Green e-Program	48	\$200	\$9,600
Corporate Social Responsibility	National Park Service	Local Park Clean Up	75	\$200	\$15,000
Totals:			123	\$200	\$24,600

2. **Value of Benefits.** Contractor shall undertake Community Benefits with a value of no less than \$24,600 over the life of this Agreement.
3. **Community Benefits Representative.** The Contractor Community Benefits (CB) representative will coordinate the community benefits commitments. The CB representative shall ensure that the community benefits commitments are delivered to the communities that they are intended to benefit in a transparent and accountable manner. The CB representative shall organize, plan, track, measure, and report on the Contractor's community benefits commitments. The CB representative shall also coordinate the senior management of Contractor's authorized subconsultants, if applicable, when necessary to ensure the entire team participates in providing benefits to the San Francisco community.

4. **Quarterly Reports.** Contractor shall prepare and submit quarterly reports to the City on the last business day of the month following the close of each quarter.
 - 4.1 The reports shall describe Contractor's community benefits efforts under the program both in the prior quarter and to date. Contractor's quarterly reports shall include (i) the name and description of all projects commenced, underway, and completed; (ii) the dollar and hour values of all activities and elements of each project; (iii) the progress to date of each project; and (iv) the outcomes of projects that are underway.
 - 4.2 Contractor shall provide with the quarterly reports independently verifiable documentation (such as certified payroll records, receipts, etc.) that the City can use to independently and easily verify that the dollars and volunteer hours contributed by the Contractor as part of its Community Benefits Commitments were delivered to and actually reached the communities they were intended to benefit.
 - 4.3 The Contractor shall submit a stand-alone annual report on progress in fulfilling Contractor's Community Benefits Commitments, detailing factors such as the total number of dollars and hours contributed to each of the proposed tasks and organizations over the year.
5. Contractor's Community Benefits Commitments shall be performed during the term of the Agreement. Commitments performed as part of previous contracts or prior to the Effective Date cannot be used as part of Contractor's Community Benefits Commitments for the projects.
6. Contractor's Community Benefits Commitments are for the sole benefit of the Parties hereto and shall not be construed as conferring any rights on any other persons or entities.

APPENDIX C

ADDITIONAL TASKS

1. **Task Orders.** In addition to the Services described in Appendix A above, the City and the Contractor may agree on additional Services to be provided through a task order process, provided that all task orders shall be subject to all requirements of the Agreement, including but not limited to the compensation maximum set forth in Section 5 of the Agreement.
2. **Quality Control.** In the event that the City and Contractor agree on additional Services through the task order process, the Contractor will be required to provide adequate quality control processes and deliverables in conformance with the technical requirements of the task order.
3. **Task Order Process.**
 - 3.1. The SFPUC Project Manager will initially identify tasks and request the Contractor to propose a project scope, sub tasks, staffing plan, schedule, deliverables, budget and costs to complete the task in accordance with Appendix D. These tasks may include, but are not limited to the following:
 - 3.1.1. Preparation of market analyses, recommending strategies, and providing support for City participation in the CAISO annual and seasonal/monthly Congestion Revenue Rights (“CRR”) Allocation processes.
 - 3.1.2. Support for meeting FERC Order 741 minimum participation requirements.
 - 3.1.3. Support for day-ahead and same-day resource management and scheduling, and balancing resources and loads taking into account the City’s various delivery obligations and water first policy, as stated in California Water Code, Section 73504(b).
 - 3.1.4. Support for optimization of service to loads and management of City’s overall load/resource position.
 - 3.1.5. Energy trading, procurement and marketing, bilateral settlements, credit management and reporting, in accordance with the City’s Energy Trading Risk Management Policy.
 - 3.1.6. Training of SFPUC trading and settlement staff on current Western Interconnection and CAISO markets, analysis of market trades versus fair market value and summaries of associated revenue impacts, and advising City on desk procedures detailing specific trading strategies and practices.
 - 3.1.7. Identifying strategies to maximize revenue, analysis of active counterparties, and recommending additional counterparties and trading hubs.
 - 3.1.8. SC and other support services for the formation and operation of a Community Choice Aggregation program, including but not limited to:
 - 3.1.8.1. Establishment and use of new SCIDs for power scheduling and settlement;

- 3.1.8.2. Separate settlement, invoicing and payment of any Pass-Through Charges owed to CAISO or Payments owed to City, using new clearing accounts;
 - 3.1.8.3. Establishment of separate scheduling procedures by SCID; and
 - 3.1.8.4. Support for the development and submission of all necessary resource adequacy reports to the CAISO.
- 3.2. All costs associated with the development of proposed scopes of work and budgets shall be borne by Contractor.
 - 3.3. A final task order and budget will be negotiated between the SFPUC Project Manager and the Contractor and then submitted to the Energy Infrastructure and Planning Manager for approval.
 - 3.4. The budget for a Task Order is an estimate, and the City reserves the right to modify the applicable budget allocated to any Task Order as more specific information concerning the Task Order scope becomes available. Notwithstanding the foregoing, Contractor may not exceed a budget included in a final Task Order without the prior approval of the SFPUC Project Manager.
 - 3.5. The Task Order request will be processed for Controller certification of funding, after which a Notice to Proceed will be issued by the City to Contractor. The Contractor is hereby notified that work cannot commence until the Contractor receives a written Notice to Proceed in accordance with the San Francisco Administrative Code. ***Any work performed without a Notice to Proceed will be at the Contractor's own commercial risk.*** The calculations of costs and methods of compensation for all task orders under this Agreement shall be in accordance with Appendix D.

Appendix D

Calculation of Charges For Appendix C Services

Compensation for Appendix C Services agreed to by the Parties shall be determined as follows:

1. Contractor's hourly billing rates for additional services agreed to by the Parties pursuant to Appendix C shall be:

- Director, Operations: \$200.00
- Director, Product Development: \$200.00

The parties shall mutually agree upon billing rates for Contractor staff positions not listed above. The billing rate may not exceed the lowest rate charged to any other governmental entity except the City and County of San Francisco. Billing rates may be adjusted annually on the anniversary of the effective date of this Agreement. The first adjustment may be made no earlier than the first anniversary of the effective start date. The amount of the adjustment is limited to a maximum of the CPI annual percentage change increase (San Francisco Bay Area for Urban Wage Earners and Clerical Workers) for the previous calendar year. No increase, including the annual CPI adjustment, is allowed to billing rates exceeding **\$290 per hour**, unless the SFPUC Project Manager and Bureau Manager authorize an increase to the rate in writing.

2. The Effective Overhead and Profit Rate (EOPR) for Appendix C Services is **1.0**. The EOPR will apply to the billing rate of all individuals not listed in this Appendix D. The EOPR will also apply to all amendments to the Agreement. If a new sub-consultant is added during the duration of the Agreement, the new individual firm multiplier can be no more than the EOPR.
3. Direct reimbursable expenses (ODCs – Other Direct Costs) shall include actual direct costs (with no mark up) of expenses directly incurred in performing the work. All ODCs are subject to pre-approval in writing by the SFPUC Project Manager. The following items will be eligible for reimbursement as ODCs:
 - Out-of-town travel (“out-of-town” shall mean outside the nine Bay Area counties: San Francisco, Alameda, Marin, Santa Clara, Sonoma, Contra Costa, Napa, San Mateo, Solano);
 - Out- of town meal, travel and lodging expenses for project-related business trips, including, but not limited to:
 - Rental vehicle: traveler must select the most economical contractor and type of vehicle available and acquire any commercial rate or government discount available when the vehicle is rented;
 - Personal vehicle use: Contractor will be paid per mile as established by the United State Internal Revenue Service and only for that portion of travel that is outside the nine Bay Area counties and non-routine. Should the travel begin or end on a normal

workday, the Contractor shall subtract commuting mileage from total mileage to calculate reimbursable mileage. The Contractor shall submit to the City an approved mileage log with its monthly invoices;

- Meal and lodging expenses shall be reasonable and actual but limited to Federal government per diem rates;
- Specialty printing (“specialty” as used herein shall mean large volume printing and color printing and requires **prior** written approval by SFPUC project staff and documentation of the written approval by the SFPUC must be included with the invoice);
- Specialty computer hardware and software (only with **prior** written approval by SFPUC project staff and documentation of the written approval by the SFPUC must be included with the invoice – all hardware and software will be the property of the City);
- Courier services that are project related and originated from the project site offices;
- Permit fees;
- Expedited courier services when requested by SFPUC staff; and
- Safety equipment.

No other costs or expenses are eligible for reimbursement under this Agreement. They include, but are not limited to:

- All other travel expenses such as parking, bridge tolls, public transit, vehicle mileage within the nine Bay Area Counties, travel from Contractor’s home office to SFPUC facilities;
- Contractor personnel relocation costs;
- Any home or regional office labor charges or pass-throughs, including but not limited to, administrative and clerical personnel time;
- Personnel relocation and temporary assignment expenses;
- Entertainment expenses;
- Cell phones;
- Home office expenses;
- Telephone calls and faxes originating in the firm’s home office, standard computer use charges, computer hardware or software computer hardware or software (other than the specialty hardware or software mentioned above), communication devices, and electronic equipment;
- Meal expenses which are not related to project-related business trips, including refreshments and working lunches with City staff;
- Equipment to be used by City staff; and
- Postage and courier services which are not requested by SFPUC staff.

4. Second-tier and pass-through subcontracting is prohibited. Additional subcontractors may be added to the contractor team after obtaining pre-authorization by the SFPUC Project Manager, Bureau/Division Manager and the Contract.

Monitoring Division. Note that subcontractor administration markup is limited to actual cost not to exceed 5%.

5. Payment for Appendix C Services shall be made in accordance with Section 7.3 of Appendix A of this Agreement.
6. The SFPUC is automating its contracting and invoice payment processes with online software systems (SOLIS). The following processes are being automated: Contract Certification, Insurance Compliance, Task Order Certification, Timekeeping, Invoice Approval, and Invoice Payment. As part of its contracting obligations, the Contractor is required to 1) become an authorized user of these systems, 2) attend user training for these systems; and 3) utilize these systems for the purposes for which they are intended. Contractor shall not bill the SFPUC to use these systems. Contractor shall not charge SFPUC to send appropriate personnel to user training.

7. Administrative Code 14B Reporting Requirements

All contractors and subcontractors are required to use the Elation secure web-based Local Business Enterprise Utilization Tracking System (LBEUTS) to submit payment information including invoices and other related information. The Contract Monitoring Division (CMD) will use this information to monitor compliance with the 14B LBE Ordinance. For more information, please visit: www.sfgov.org/LBEUTS.

Task Order #01
Logical Meter Maintenance & Operations

This Task Order #01 is part of and incorporates the terms and conditions of that certain Agreement between APX, Inc. ("Contractor"), and the City and County of San Francisco ("City") dated June __, 2015 (the "Agreement"). Unless otherwise defined herein, all capitalized terms used herein shall have the meaning set forth in the Agreement. In the event of a conflict between the terms of this Task Order #01 and the Agreement, the terms of this Task Order #01 shall control and take precedence.

Services Term: The term of this Task Order #01 shall be from the Effective Date as set forth in Section 3 of the Agreement to 12:00 AM on the fifth annual anniversary of the Effective Date.

Services Description: Contractor will continue its MID Logical Meter Calculation based on the SFPUC Logical Meter for MRTU Calculation Implementation Document (the "LM Document") developed under the prior Agreement between the Parties dated March 31, 2009, to enable City to process and exchange meter data for the MID Logical Meter Calculation. The cash value of the excess generation shall be settled at the CAISO market prices. Contractor shall submit the output of the MID Logical Meter Calculation to MID and CAISO. A copy of such LM Document has already been provided to City. Subject to the terms and conditions of the Agreement and this Task Order #01, Contractor grants to City a perpetual, non-exclusive, worldwide, non-transferable, non-sublicensable, royalty-free license to internally use the LM Document for its intended purpose. Contractor further agrees that in the event of termination of the Services under this Task Order #01, the City shall have the right and license to provide a copy of such LM Document to a third party vendor of City's choice for the sole purpose of implementing the logical meter calculation contained therein on the City's behalf. The above license is contingent upon the City's full and final payment to Contractor of all amounts under this Task Order #01.

City may terminate the MID Logical Meter Calculation service at any time during the term of this Agreement upon 30-day's written notice.

Contractor shall be solely responsible for any errors in processing the logical meter arrangement.

City's Obligations:

The City will provide meter data files as set forth in Appendix A, SubSection 5.1 of the Agreement.

Service Fees: Contractor will provide the Services in this Task Order #01 at the rate of \$6,000/month. All invoices for Services shall be due and payable on or before thirty (30) days after receipt of the invoice or, if such day is not a Business Day, then on the next Business Day. City shall make payments by electronic funds transfer or by other mutually agreeable method(s), to the account designated by Contractor. In no event shall City be liable for interest or late charges for any late payments.

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Acceptance:

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement the Effective Date stated above.

CITY, acting by and through its PUBLIC UTILITIES COMMISSION

APX, INC.

Signature

Signature

Name

Name

Title

Title

Date

Date

