

1 necessary funds for such payment by the City in each fiscal year during the term of
2 this Agreement. For the purposes of this Section, a fiscal year commences on
3 October 1 of the year and continues through September 30 of the following year. In
4 the event that the City Council of the City fails to appropriate the necessary funds
5 for any fiscal year, then, and in that event, the Agreement will terminate at no
6 additional cost or obligation to the City.

7 C. Consultant may select the time and place of performance for
8 these services; provided, however, that access to City documents, records and the
9 like, if needed by Consultant, shall be available only during City's normal business
10 hours and provided that milestones for performance, if any, are met.

11 D. Consultant has requested to receive regular payments. City
12 shall pay Consultant in due course of payments following receipt from Consultant
13 and approval by City of invoices showing the services or task performed, the time
14 expended (if billing is hourly), and the name of the Project. Consultant shall certify
15 on the invoices that Consultant has performed the services in full conformance with
16 this Agreement and is entitled to receive payment. Each invoice shall be
17 accompanied by a progress report indicating the progress to date of services
18 performed and covered by the invoice, including a brief statement of any Project
19 problems and potential causes of delay in performance, and listing those services
20 that are projected for performance by Consultant during the next invoice cycle.
21 Where billing is done and payment is made on an hourly basis, the parties
22 acknowledge that this arrangement is either customary practice for Consultant's
23 profession, industry or business, or is necessary to satisfy audit and legal
24 requirements which may arise due to the fact that City is a municipality.

25 E. Consultant represents that Consultant has obtained all
26 necessary information on conditions and circumstances that may affect its
27 performance and has conducted site visits, if necessary.

28 F. CAUTION: Consultant shall not begin work until this

1 Agreement has been signed by both parties and until Consultant's evidence of
2 insurance has been delivered to and approved by City.

3 2. TERM. The term of this Agreement shall commence at midnight on
4 February 1, 2019, and shall terminate at 11:59 p.m. on September 30, 2019, unless sooner
5 terminated as provided in this Agreement, or unless the services or the Project is
6 completed sooner.

7 3. COORDINATION AND ORGANIZATION.

8 A. Consultant shall coordinate its performance with City's
9 representative, if any, named in Exhibit "C", attached to this Agreement and
10 incorporated by this reference. Consultant shall advise and inform City's
11 representative of the work in progress on the Project in sufficient detail so as to
12 assist City's representative in making presentations and in holding meetings on the
13 Project. City shall furnish to Consultant information or materials, if any, described
14 in Exhibit "D", attached to this Agreement and incorporated by this reference, and
15 shall perform any other tasks described in the Exhibit.

16 B. The parties acknowledge that a substantial inducement to City
17 for entering this Agreement was and is the reputation and skill of Consultant's key
18 employee, named in Exhibit "E" attached to this Agreement and incorporated by this
19 reference. City shall have the right to approve any person proposed by Consultant
20 to replace that key employee.

21 4. INDEPENDENT CONTRACTOR. In performing its services,
22 Consultant is and shall act as an independent contractor and not an employee,
23 representative or agent of City. Consultant shall have control of Consultant's work and the
24 manner in which it is performed. Consultant shall be free to contract for similar services to
25 be performed for others during this Agreement; provided, however, that Consultant acts in
26 accordance with Section 9 and Section 11 of this Agreement. Consultant acknowledges
27 and agrees that (a) City will not withhold taxes of any kind from Consultant's compensation;
28 (b) City will not secure workers' compensation or pay unemployment insurance to, for or

1 on Consultant's behalf; and (c) City will not provide and Consultant is not entitled to any of
2 the usual and customary rights, benefits or privileges of City employees. Consultant
3 expressly warrants that neither Consultant nor any of Consultant's employees or agents
4 shall represent themselves to be employees or agents of City.

5 5. INSURANCE.

6 A. As a condition precedent to the effectiveness of this
7 Agreement, Consultant shall procure and maintain, at Consultant's expense for the
8 duration of this Agreement, from insurance companies that are admitted to write
9 insurance in California and have ratings of or equivalent to A:V by A.M. Best
10 Company or from authorized non-admitted insurance companies subject to Section
11 1763 of the California Insurance Code and that have ratings of or equivalent to A:VIII
12 by A.M. Best Company, the following insurance:

13 i. Commercial general liability insurance (equivalent in
14 scope to ISO form CG 00 01 11 85 or CG 00 01 10 93) in an amount not less
15 than \$1,000,000 per each occurrence and \$2,000,000 general aggregate.
16 This coverage shall include but not be limited to broad form contractual
17 liability, cross liability, independent contractors liability, and products and
18 completed operations liability. City, its boards and commissions, and their
19 officials, employees and agents shall be named as additional insureds by
20 endorsement (on City's endorsement form or on an endorsement equivalent
21 in scope to ISO form CG 20 10 11 85 or CG 20 26 11 85 or both CG 20 10
22 07 04 and CG 20 37 07 04 or both CG 20 33 07 04 and CG 20 37 07 04),
23 and this insurance shall contain no special limitations on the scope of
24 protection given to City, its boards and commissions, and their officials,
25 employees and agents. This policy shall be endorsed to state that the insurer
26 waives its right of subrogation against City, its boards and commissions, and
27 their officials, employees and agents.

28 ii. Workers' Compensation insurance as required by the

1 California Labor Code and employer's liability insurance in an amount not
2 less than \$1,000,000. This policy shall be endorsed to state that the insurer
3 waives its right of subrogation against City, its boards and commissions, and
4 their officials, employees and agents.

5 iii. Professional liability or errors and omissions insurance
6 in an amount not less than \$1,000,000 per claim.

7 iv. Commercial automobile liability insurance (equivalent in
8 scope to ISO form CA 00 01 06 92), covering Auto Symbol 1 (Any Auto) in
9 an amount not less than \$500,000 combined single limit per accident.

10 B. Any self-insurance program, self-insured retention, or
11 deductible must be separately approved in writing by City's Risk Manager or
12 designee and shall protect City, its officials, employees and agents in the same
13 manner and to the same extent as they would have been protected had the policy
14 or policies not contained retention or deductible provisions.

15 C. Each insurance policy shall be endorsed to state that coverage
16 shall not be reduced, non-renewed or canceled except after thirty (30) days prior
17 written notice to City, shall be primary and not contributing to any other insurance
18 or self-insurance maintained by City, and shall be endorsed to state that coverage
19 maintained by City shall be excess to and shall not contribute to insurance or self-
20 insurance maintained by Consultant. Consultant shall notify City in writing within
21 five (5) days after any insurance has been voided by the insurer or cancelled by the
22 insured.

23 D. If this coverage is written on a "claims made" basis, it must
24 provide for an extended reporting period of not less than one hundred eighty (180)
25 days, commencing on the date this Agreement expires or is terminated, unless
26 Consultant guarantees that Consultant will provide to City evidence of uninterrupted,
27 continuing coverage for a period of not less than three (3) years, commencing on
28 the date this Agreement expires or is terminated.

1 E. Consultant shall require that all subconsultants or contractors
2 that Consultant uses in the performance of these services maintain insurance in
3 compliance with this Section unless otherwise agreed in writing by City's Risk
4 Manager or designee.

5 F. Prior to the start of performance, Consultant shall deliver to City
6 certificates of insurance and the endorsements for approval as to sufficiency and
7 form. In addition, Consultant shall, within thirty (30) days prior to expiration of the
8 insurance, furnish to City certificates of insurance and endorsements evidencing
9 renewal of the insurance. City reserves the right to require complete certified copies
10 of all policies of Consultant and Consultant's subconsultants and contractors, at any
11 time. Consultant shall make available to City's Risk Manager or designee all books,
12 records and other information relating to this insurance, during normal business
13 hours.

14 G. Any modification or waiver of these insurance requirements
15 shall only be made with the approval of City's Risk Manager or designee. Not more
16 frequently than once a year, City's Risk Manager or designee may require that
17 Consultant, Consultant's subconsultants and contractors change the amount, scope
18 or types of coverages required in this Section if, in his or her sole opinion, the
19 amount, scope or types of coverages are not adequate.

20 H. The procuring or existence of insurance shall not be construed
21 or deemed as a limitation on liability relating to Consultant's performance or as full
22 performance of or compliance with the indemnification provisions of this Agreement.

23 6. ASSIGNMENT AND SUBCONTRACTING. This Agreement
24 contemplates the personal services of Consultant and Consultant's employees, and the
25 parties acknowledge that a substantial inducement to City for entering this Agreement was
26 and is the professional reputation and competence of Consultant and Consultant's
27 employees. Consultant shall not assign its rights or delegate its duties under this
28 Agreement, or any interest in this Agreement, or any portion of it, without the prior approval

1 of City, except that Consultant may with the prior approval of the City Manager of City,
2 assign any moneys due or to become due Consultant under this Agreement. Any
3 attempted assignment or delegation shall be void, and any assignee or delegate shall
4 acquire no right or interest by reason of an attempted assignment or delegation.
5 Furthermore, Consultant shall not subcontract any portion of its performance without the
6 prior approval of the City Manager or designee, or substitute an approved subconsultant
7 or contractor without approval prior to the substitution. Nothing stated in this Section shall
8 prevent Consultant from employing as many employees as Consultant deems necessary
9 for performance of this Agreement.

10 7. CONFLICT OF INTEREST. Consultant, by executing this Agreement,
11 certifies that, at the time Consultant executes this Agreement and for its duration,
12 Consultant does not and will not perform services for any other client which would create
13 a conflict, whether monetary or otherwise, as between the interests of City and the interests
14 of that other client. Consultant further certifies that Consultant does not now have and shall
15 not acquire any interest, direct or indirect, in the area covered by this Agreement or any
16 other source of income, interest in real property or investment which would be affected in
17 any manner or degree by the performance of Consultant's services hereunder. And,
18 Consultant shall obtain similar certifications from Consultant's employees, subconsultants
19 and contractors.

20 8. MATERIALS. Consultant shall furnish all labor and supervision,
21 supplies, materials, tools, machinery, equipment, appliances, transportation and services
22 necessary to or used in the performance of Consultant's obligations under this Agreement,
23 except as stated in Exhibit "D".

24 9. OWNERSHIP OF DATA. All materials, information and data
25 prepared, developed or assembled by Consultant or furnished to Consultant in connection
26 with this Agreement, including but not limited to documents, estimates, calculations,
27 studies, maps, graphs, charts, computer disks, computer source documentation, samples,
28 models, reports, summaries, drawings, designs, notes, plans, information, material and

1 memorandum ("Data") shall be the exclusive property of City. Data shall be given to City,
2 and City shall have the unrestricted right to use and disclose the Data in any manner and
3 for any purpose without payment of further compensation to Consultant. Copies of Data
4 may be retained by Consultant but Consultant warrants that Data shall not be made
5 available to any person or entity for use without the prior approval of City. This warranty
6 shall survive termination of this Agreement for five (5) years.

7 10. TERMINATION. Either party shall have the right to terminate this
8 Agreement for any reason or no reason at any time by giving fifteen (15) calendar days
9 prior written notice to the other party. In the event of termination under this Section, City
10 shall pay Consultant for services satisfactorily performed and costs incurred up to the
11 effective date of termination for which Consultant has not been previously paid. The
12 procedures for payment in Section 1.B. with regard to invoices shall apply. On the effective
13 date of termination, Consultant shall deliver to City all Data developed or accumulated in
14 the performance of this Agreement, whether in draft or final form, or in process. And,
15 Consultant acknowledges and agrees that City's obligation to make final payment is
16 conditioned on Consultant's delivery of the Data to City.

17 11. CONFIDENTIALITY. Consultant shall keep all Data confidential and
18 shall not disclose the Data or use the Data directly or indirectly, other than in the course of
19 performing its services, during the term of this Agreement and for five (5) years following
20 expiration or termination of this Agreement. In addition, Consultant shall keep confidential
21 all information, whether written, oral or visual, obtained by any means whatsoever in the
22 course of performing its services for the same period of time. Consultant shall not disclose
23 any or all of the Data to any third party, or use it for Consultant's own benefit or the benefit
24 of others except for the purpose of this Agreement.

25 12. BREACH OF CONFIDENTIALITY. Consultant shall not be liable for
26 a breach of confidentiality with respect to Data that: (a) Consultant demonstrates
27 Consultant knew prior to the time City disclosed it; or (b) is or becomes publicly available
28 without breach of this Agreement by Consultant; or (c) a third party who has a right to

1 disclose does so to Consultant without restrictions on further disclosure; or (d) must be
2 disclosed pursuant to subpoena or court order.

3 13. ADDITIONAL COSTS AND REDESIGN.

4 A. Any costs incurred by City due to Consultant's failure to meet
5 the standards required by the scope of work or Consultant's failure to perform fully
6 the tasks described in the scope of work which, in either case, causes City to request
7 that Consultant perform again all or part of the Scope of Work shall be at the sole
8 cost of Consultant and City shall not pay any additional compensation to Consultant
9 for its re-performance.

10 B. If the Project involves construction and the scope of work
11 requires Consultant to prepare plans and specifications with an estimate of the cost
12 of construction, then Consultant may be required to modify the plans and
13 specifications, any construction documents relating to the plans and specifications,
14 and Consultant's estimate, at no cost to City, when the lowest bid for construction
15 received by City exceeds by more than ten percent (10%) Consultant's estimate.
16 This modification shall be submitted in a timely fashion to allow City to receive new
17 bids within four (4) months after the date on which the original plans and
18 specifications were submitted by Consultant.

19 14. AMENDMENT. This Agreement, including all Exhibits, shall not be
20 amended, nor any provision or breach waived, except in writing signed by the parties which
21 expressly refers to this Agreement.

22 15. LAW. This Agreement shall be construed in accordance with the laws
23 of the State of California, and the venue for any legal actions brought by any party with
24 respect to this Agreement shall be the County of Los Angeles, State of California for state
25 actions and the Central District of California for any federal actions. Consultant shall cause
26 all work performed in connection with construction of the Project to be performed in
27 compliance with (1) all applicable laws, ordinances, rules and regulations of federal, state,
28 county or municipal governments or agencies (including, without limitation, all applicable

1 federal and state labor standards, including the prevailing wage provisions of sections 1770
2 *et seq.* of the California Labor Code); and (2) all directions, rules and regulations of any fire
3 marshal, health officer, building inspector, or other officer of every governmental agency
4 now having or hereafter acquiring jurisdiction.

5 16. PREVAILING WAGES.

6 A. Consultant agrees that all public work (as defined in California
7 Labor Code section 1720) performed pursuant to this Agreement (the "Public
8 Work"), if any, shall comply with the requirements of California Labor Code sections
9 1770 *et seq.* City makes no representation or statement that the Project, or any
10 portion thereof, is or is not a "public work" as defined in California Labor Code
11 section 1720.

12 B. In all bid specifications, contracts and subcontracts for any
13 such Public Work, Consultant shall obtain the general prevailing rate of per diem
14 wages and the general prevailing rate for holiday and overtime work in this locality
15 for each craft, classification or type of worker needed to perform the Public Work,
16 and shall include such rates in the bid specifications, contract or subcontract. Such
17 bid specifications, contract or subcontract must contain the following provision: "It
18 shall be mandatory for the contractor to pay not less than the said prevailing rate of
19 wages to all workers employed by the contractor in the execution of this contract.
20 The contractor expressly agrees to comply with the penalty provisions of California
21 Labor Code section 1775 and the payroll record keeping requirements of California
22 Labor Code section 1771."

23 17. ENTIRE AGREEMENT. This Agreement, including all Exhibits,
24 constitutes the entire understanding between the parties and supersedes all other
25 agreements, oral or written, with respect to the subject matter in this Agreement.

26 18. INDEMNITY.

27 A. Consultant shall indemnify, protect and hold harmless City, its
28 Boards, Commissions, and their officials, employees and agents ("Indemnified

1 Parties”), from and against any and all liability, claims, demands, damage, loss,
2 obligations, causes of action, proceedings, awards, fines, judgments, penalties,
3 costs and expenses, arising or alleged to have arisen, in whole or in part, out of or
4 in connection with (1) Consultant’s breach or failure to comply with any of its
5 obligations contained in this Agreement, including any obligations arising from the
6 Project’s compliance with or failure to comply with applicable laws, including all
7 applicable federal and state labor requirements including, without limitation, the
8 requirements of California Labor Code section 1770 *et seq.* or (2) negligent or willful
9 acts, errors, omissions or misrepresentations committed by Consultant, its officers,
10 employees, agents, subcontractors, or anyone under Consultant’s control, in the
11 performance of work or services under this Agreement (collectively “Claims” or
12 individually “Claim”).

13 B. In addition to Consultant’s duty to indemnify, Consultant shall
14 have a separate and wholly independent duty to defend Indemnified Parties at
15 Consultant’s expense by legal counsel approved by City, from and against all
16 Claims, and shall continue this defense until the Claims are resolved, whether by
17 settlement, judgment or otherwise. No finding or judgment of negligence, fault,
18 breach, or the like on the part of Consultant shall be required for the duty to defend
19 to arise. City shall notify Consultant of any Claim, shall tender the defense of the
20 Claim to Consultant, and shall assist Consultant, as may be reasonably requested,
21 in the defense.

22 C. If a court of competent jurisdiction determines that a Claim was
23 caused by the sole negligence or willful misconduct of Indemnified Parties,
24 Consultant’s costs of defense and indemnity shall be (1) reimbursed in full if the
25 court determines sole negligence by the Indemnified Parties, or (2) reduced by the
26 percentage of willful misconduct attributed by the court to the Indemnified Parties.

27 D. The provisions of this Section shall survive the expiration or
28 termination of this Agreement.

1 19. AMBIGUITY. In the event of any conflict or ambiguity between this
2 Agreement and any Exhibit, the provisions of this Agreement shall govern.

3 20. NONDISCRIMINATION.

4 A. In connection with performance of this Agreement and subject
5 to applicable rules and regulations, Consultant shall not discriminate against any
6 employee or applicant for employment because of race, religion, national origin,
7 color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap or
8 disability. Consultant shall ensure that applicants are employed, and that
9 employees are treated during their employment, without regard to these bases.
10 These actions shall include, but not be limited to, the following: employment,
11 upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or
12 termination; rates of pay or other forms of compensation; and selection for training,
13 including apprenticeship.

14 B. It is the policy of City to encourage the participation of
15 Disadvantaged, Minority and Women-Owned Business Enterprises in City's
16 procurement process, and Consultant agrees to use its best efforts to carry out this
17 policy in its use of subconsultants and contractors to the fullest extent consistent
18 with the efficient performance of this Agreement. Consultant may rely on written
19 representations by subconsultants and contractors regarding their status.
20 Consultant shall report to City in May and in December or, in the case of short-term
21 agreements, prior to invoicing for final payment, the names of all subconsultants
22 and contractors hired by Consultant for this Project and information on whether or
23 not they are a Disadvantaged, Minority or Women-Owned Business Enterprise, as
24 defined in Section 8 of the Small Business Act (15 U.S.C. Sec. 637).

25 21. EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in
26 accordance with the provisions of the Ordinance, this Agreement is subject to the
27 applicable provisions of the Equal Benefits Ordinance (EBO), section 2.73 et seq. of the
28 Long Beach Municipal Code, as amended from time to time.

1 A. During the performance of this Agreement, the Consultant
2 certifies and represents that the Consultant will comply with the EBO. The
3 Consultant agrees to post the following statement in conspicuous places at its place
4 of business available to employees and applicants for employment:

5 "During the performance of a contract with the City of Long Beach, the
6 Consultant will provide equal benefits to employees with spouses and its
7 employees with domestic partners. Additional information about the City of
8 Long Beach's Equal Benefits Ordinance may be obtained from the City of
9 Long Beach Business Services Division at 562-570-6200."

10 B. The failure of the Consultant to comply with the EBO will be
11 deemed to be a material breach of the Agreement by the City.

12 C. If the Consultant fails to comply with the EBO, the City may
13 cancel, terminate or suspend the Agreement, in whole or in part, and monies due or
14 to become due under the Agreement may be retained by the City. The City may
15 also pursue any and all other remedies at law or in equity for any breach.

16 D. Failure to comply with the EBO may be used as evidence
17 against the Consultant in actions taken pursuant to the provisions of Long Beach
18 Municipal Code 2.93 et seq., Contractor Responsibility.

19 E. If the City determines that the Consultant has set up or used its
20 contracting entity for the purpose of evading the intent of the EBO, the City may
21 terminate the Agreement on behalf of the City. Violation of this provision may be
22 used as evidence against the Consultant in actions taken pursuant to the provisions
23 of Long Beach Municipal Code Section 2.93 et seq., Contractor Responsibility.

24 22. NOTICES. Any notice or approval required by this Agreement shall
25 be in writing and personally delivered or deposited in the U.S. Postal Service, first class,
26 postage prepaid, addressed to Consultant at the address first stated above, and to City at
27 333 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager, with a copy
28 to the City Engineer at the same address. Notice of change of address shall be given in

1 the same manner as stated for other notices. Notice shall be deemed given on the date
2 deposited in the mail or on the date personal delivery is made, whichever occurs first.

3 23. COPYRIGHTS AND PATENT RIGHTS.

4 A. Consultant shall place the following copyright protection on all
5 Data: © City of Long Beach, California ____, inserting the appropriate year.

6 B. City reserves the exclusive right to seek and obtain a patent or
7 copyright registration on any Data or other result arising from Consultant's
8 performance of this Agreement. By executing this Agreement, Consultant assigns
9 any ownership interest Consultant may have in the Data to City.

10 C. Consultant warrants that the Data does not violate or infringe
11 any patent, copyright, trade secret or other proprietary right of any other party.
12 Consultant agrees to and shall protect, defend, indemnify and hold City, its officials
13 and employees harmless from any and all claims, demands, damages, loss, liability,
14 causes of action, costs or expenses (including reasonable attorney's fees) whether
15 or not reduced to judgment, arising from any breach or alleged breach of this
16 warranty.

17 24. COVENANT AGAINST CONTINGENT FEES. Consultant warrants

18 that Consultant has not employed or retained any entity or person to solicit or obtain this
19 Agreement and that Consultant has not paid or agreed to pay any entity or person any fee,
20 commission or other monies based on or from the award of this Agreement. If Consultant
21 breaches this warranty, City shall have the right to terminate this Agreement immediately
22 notwithstanding the provisions of Section 10 or, in its discretion, to deduct from payments
23 due under this Agreement or otherwise recover the full amount of the fee, commission or
24 other monies.

25 25. WAIVER. The acceptance of any services or the payment of any

26 money by City shall not operate as a waiver of any provision of this Agreement or of any
27 right to damages or indemnity stated in this Agreement. The waiver of any breach of this
28 Agreement shall not constitute a waiver of any other or subsequent breach of this

1 Agreement.

2 26. CONTINUATION. Termination or expiration of this Agreement shall
3 not affect rights or liabilities of the parties which accrued pursuant to Sections 7, 10, 11,
4 17, 19, 22 and 28 prior to termination or expiration of this Agreement.

5 27. TAX REPORTING. As required by federal and state law, City is
6 obligated to and will report the payment of compensation to Consultant on Form 1099-
7 Misc. Consultant shall be solely responsible for payment of all federal and state taxes
8 resulting from payments under this Agreement. Consultant shall submit Consultant's
9 Employer Identification Number (EIN), or Consultant's Social Security Number if
10 Consultant does not have an EIN, in writing to City's Accounts Payable, Department of
11 Financial Management. Consultant acknowledges and agrees that City has no obligation
12 to pay Consultant until Consultant provides one of these numbers.

13 28. ADVERTISING. Consultant shall not use the name of City, its officials
14 or employees in any advertising or solicitation for business or as a reference, without the
15 prior approval of the City Manager or designee.

16 29. AUDIT. City shall have the right at all reasonable times during the
17 term of this Agreement and for a period of five (5) years after termination or expiration of
18 this Agreement to examine, audit, inspect, review, extract information from and copy all
19 books, records, accounts and other documents of Consultant relating to this Agreement.

20 30. THIRD PARTY BENEFICIARY. This Agreement is not intended or
21 designed to or entered for the purpose of creating any benefit or right for any person or
22 entity of any kind that is not a party to this Agreement.

23 ///

24 ///

25 ///

26 ///

27 ///

28 ///

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

ZGLOBAL INC., a California corporation

January 17th, 2019

By [Signature]
Name Ziad Alayman
Title CEO

January 17th, 2019

By D. Alayman
Name Deborah Alayman
Title ATO

Tom Modica
Assistant City Manager

EXECUTED PURSUANT
TO SECTION 301 OF
THE CITY CHARTER

"Consultant"

CITY OF LONG BEACH, a municipal corporation

Feb. 7, 2019

By [Signature]
City Manager

"City"

This Agreement is approved as to form on February 6, 2019.

CHARLES PARKIN, City Attorney

By [Signature]
Deputy

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Lona Beach, CA 90802-4664

EXHIBIT “A”

Scope of Work

Scope of Work to Provide Technical Analysis for Community Choice Aggregation Feasibility Study for the City of Long Beach

1. Overview

ZGlobal will perform technical analysis to be utilized as input to the City of Long Beach's ("City") Community Choice Aggregation (CCA) Feasibility Assessment. The technical assessment is focused on the following:

1. Collection and analysis of information and data for significant load volume customers to understand plans and trends at the customer level that could impact the City's projection of load used in the CCA Feasibility Assessment
2. Qualitative discussion of risks CCAs face and quantifying ranges of value of those risks (as appropriate) for inclusion in the report. This includes:
 - a. Forward curves (wholesale price, renewable price, greenhouse gas price, technology prices e.g. battery storage, etc.)
 - b. Technical versus fundamental analysis; probabilistic versus deterministic models; and model error risk;
 - c. Retail hedging dynamics, strategies and products: market price risk, volumetric risk, swing risk, delta hedging, shape factor cost, minimum variance hedge, options and efficient frontier analysis, gamma and shaping factor hedge; DART spread and demand bidding strategies; aggregation of Distributed Energy Resources; rate design and structures (e.g. fixed price full requirements, fixed price block, floating index, block & index, hybrids and triggers, etc.)
 - d. Hedge transactions of various types and their relative risk reduction value to the portfolio (e.g. power and natural gas forwards and cross-commodity hedge dynamics, swaps, futures, daily and monthly call/put options, CRRs, DER products, etc.)
 - e. Analytics and business processes for competitive retail services for key customer accounts (retail pricing desk, deal valuation and hedge optimization, etc.)
 - f. Energy Risk Management policies, practices and procedures; Risk Oversight Committee; back, middle and front office structure; a discussion of appropriate metrics (e.g. cash flow at risk) and reporting; speculation versus margin preservation.
 - g. Counterparty credit risk
 - h. Operational Risk
 - i. Regulatory risk
 - j. Market Structure Risk and CAISO market dynamics

Scope of Work

- k. Cost to serve load
 - l. Power Charge Indifference Adjustment (PCIA)
 - m. Generation credit received by Southern California Edison (SCE)
 - n. Customer opt out percentages and tipping point
3. Production cost modeling to assess the following:
- a. Implication of forming load aggregation points based on the City's load and how that compares with SCE's load aggregation point
 - b. CAISO pricing focused on the first five years, then through year 10 of CCA operation
 - i. The primary intent of this assessment is to determine the impact of CAISO market costs on CCA's ability to maintain a stable reserve fund and the cost to serve the City's load under current market rules and regulations and a range of expected future conditions;
 - ii. The secondary purpose is a sensitivity to assess the value or cost implications of segregating the City's load from SCE's load aggregation point to a City-specific load aggregation point
 - c. Portfolio costs of CCA and SCE

The scope and sequencing of the project is summarized by the "Long Beach_CCA Project Plan memo_6Nov2018.doc" memo.

The budget for ZGlobal is **\$60,000**. The approximate timeline for the project is **6 months** from the date ZGlobal receives the City's notice to proceed, with the Key Account Customer Survey design and data collection effort completed within **2 months**, the Risk Assessment and Production Cost Modeling completed within **4 months**, and the draft and final reports completed by **months 5 and 6** (respectively).

2. Key Account Customer Survey

The City's load that would be served under a CCA consists of approximately 115 customers that account for over 40% of the City's load. Because of the large concentration of City load in a few customers, it is critical that the City understand how these customers' plans going forward affect the load expected to be served by the City. Those plans could include growth, energy efficiency measures, behind-the-meter generation to offset energy consumption. This information can then be used to supplement the historical energy consumption use obtained via requests to SCE for use the City's load projections.

ZGlobal will work with the City to obtain customer contract information for the 115 or so customers, establish a master list of data for each customer that is willing to provide information

Scope of Work

and work with MRW to develop a standard survey for each customer account. The information collection process is summarized below.

1. Identify target customers based on input from the City
2. Develop a list of relevant data points and information to be requested, such as:
 - a. Customer authorization under the terms of SCE’s “Share my Data” Green Button platform;
 - b. A list of relevant data points and information to be requested for the load forecast, such as:
 - i. Expectation of business expansion or contraction;
 - ii. Plans for energy efficiency measures;
 - iii. Plans for behind-the-meter installations;
 - iv. Changes in processes that could affect energy consumption;
 - v. New technology that could affect energy consumption.
 - c. Level of interest regarding retail products and services, such as:
 - i. Real-time pricing rate structures;
 - ii. Customized rate structures (reflecting the customer’s risk tolerance);
 - iii. Dispatchable DER services and products;
 - iv. Virtual Power Purchase Agreements (vPPAs).
 - d. Willingness to participate in the CCA (i.e. risk of opt-out)

Customer outreach will be conducted through a combination of electronic contact (email or website), phone conversations, in-person interviews and, upon request of the City, a “Commercial and Industrial Customer Workshop” onsite at the Long Beach Energy Resources Department that ZGlobal and MRW will facilitate. Once the information is collected, ZGlobal will work with MRW and the City to compile the information as input to MRW’s forward load curve development for use in the production cost modeling effort.

3. Risk Assessment

The risk assessment will consist of a qualitative discussion of risks CCAs face, including an assessment of high, medium and low impact to CCA viability and associated likelihood of occurrence.

The second component of the risk assessment is to quantify those risks that can be effectively quantified and develop ranges of values of those risks. Examples include:

1. Wholesale price forward curves
2. Correlation of wholesale prices against load
3. Shape of load against shape of supply

Scope of Work

4. DART spread dynamics
5. Renewable prices forward curves
6. Energy storage prices forward curves
7. Greenhouse gas prices forward curves
8. Cost to serve load
9. Power Charge Indifference Adjustment (PCIA)
10. Generation credit received by Southern California Edison (SCE)
11. Customer opt out percentages and tipping point

ZGlobal will provide input to the risk management assessment which will be conducted with MRW to evaluate the CCA revenue streams and costs to serve CCA customers, for inclusion in the project report.

4. Production Cost Modeling

ZGlobal uses PLEXOS to conduct production cost modeling of the CAISO system for forward planning scenarios and operating conditions. Through the production cost assessment, ZGlobal can calculate nodal prices (LMPs) for the CAISO's 3000-plus nodes on a forward basis for each hour in a study period and load forecast. ZGlobal also incorporates transmission system modifications and upgrades approved in the CAISO planning process, and expected generation resources including new build, planned retirements, or new capacity to meet California RPS targets for future years. By performing these studies, ZGlobal can determine how costs across the CAISO's system are affected by new infrastructure and what drives LMPs on the system. The modeling also computes aggregated pricing for the respective modeled aggregated loads.

The value this has to the CCA feasibility assessment is that it:

1. Provides a robust, industry-standard approach for forecasting and planning across a range of anticipated future conditions;
2. Calculates system-wide carbon impacts from the CCA's procurement choices;
3. Accurately captures the manner in which distributed energy resources are aggregated and bid into the CAISO market;
4. Assists with assessing the implication of forming load aggregation points based on the City's load and how that compares with SCE's load aggregation point. At some point in the future, if CCAs are required to or it makes sense to establish sub-load aggregation points, the production cost modeling will provide information as to the effect on cost to serve load relative to the SCE load aggregation point.

Scope of Work

ZGlobal will perform production cost modeling with a 10-year horizon, then perform sensitivity studies on primary cost drivers such as load forecast, natural gas price, hydro conditions and renewable energy volumes to establish a range of potential outcomes.

Prior to launching the production cost modeling effort, ZGlobal will develop a comprehensive assumptions document for MRW and the City to review and approve that will describe the following:

1. Study years (expected to be 2021 through 2031)
2. Baseline assumptions
 - a. CAISO load based on California Energy Commission (CEC) projections
 - b. Transmission upgrades based on most recent CAISO Transmission Plan
 - c. Generation projects based on most recent CAISO Transmission Plan and CEC status
 - i. Retirements
 - ii. New builds
 - d. Average hydro year
 - e. Natural gas prices based on NYMEX forward curve
 - f. Energy imports into California based on proportion of must-take/price insensitive offers and economic/price sensitive offers
 - g. City of Long Beach load based on expected load from MRW
 - h. SCE utility-owned generation and contracted resources
 - i. CCA portfolio assumptions
3. Scenario assumptions
 - a. CCA portfolio
 - b. Load forecast
 - c. Natural gas prices
 - d. Hydro conditions
 - e. Renewable energy volumes
 - f. Local project development (with input from EDR Group and MRW)
 - g. Dispatchable DER impacts

Modeling results will be provided in PLEXOS output files, graphs and MS Excel spreadsheets that aggregate relevant hourly results into aggregate monthly totals.

Scope of Work

ZGlobal will summarize assumptions and methodologies for inclusion as a technical appendix in the project report.

EXHIBIT “B”

Rates or Charges

**EXHIBIT B
2019 RATE CLASSIFICATIONS**

POWER ENGINEERING & INTERCONNECTION SERVICES	HOURLY RATE
President & CEO Operations	\$339.77
VP Operations	\$312.85
Executive Director Engineering/Grid Interconnections	\$289.28
Principal Design Engineer	\$279.92
Principal Transmission Engineer	\$279.92
Sr./Lead Electrical Engineer	\$252.48
Sr./Lead Transmission Engineer	\$252.48
Staff Operations Engineer	\$230.00
Staff Transmission Engineer	\$230.00
Assoc. Operations Engineer	\$192.10
Assoc. Transmission Engineer	\$192.10
Operations/Environmental Analyst	\$192.10
QA/QC	\$177.63
STRATEGIC PLANNING	HOURLY RATE
President & CEO Operations	\$339.77
VP Operations	\$312.85
VP T&D Operations	\$312.85
Executive Director Strategic Planning	\$289.28
Manager of Risk & Reliability	\$279.92
Sr. Regulatory Specialist	\$279.92
Sr. Rate Specialist	\$252.48
Operations Analyst	\$252.48
Project Coordinator	\$177.63
QA/QC	\$131.73
MARKET ANALYTICS	HOURLY RATE
President & CEO Operations	\$339.77
VP Operations	\$312.85
Executive Director Market Analytics	\$289.28
Chief/Principal Economist	\$279.92
Sr. Economist	\$262.63
Sr. Market Analyst	\$252.48
Sr. Settlements Analyst	\$192.10
Market Analyst	\$177.63
Settlements Analyst	\$131.73

	QA/QC	\$131.73
DISTRUBUTED GENERATION		HOURLY RATE
	President & CEO Operations	\$339.77
	Executive Director Engineering/Grid Interconnections	\$289.28
	Executive Director Infrastructure Development	\$279.92
	Principal Design Engineer	\$279.92
	Manager of Design & Implementation	\$267.15
	Lead Operations or Transmission Engineer	\$252.48
	Sr. Operations or Transmission Engineer	\$252.48
	Sr. Market Analyst	\$252.48
	Project Manager	\$203.00
	Assoc. Operations Engineer	\$192.10
	Operations/Environmental Analyst	\$177.63
	Project Coordinator	177.625
ELECTRIC OPERATIONS		HOURLY RATE
	President & CEO Operations	\$339.77
	Vice President Operations	\$312.85
	Director of Operations	\$289.28
	Sr./Lead Operations or Transmission Engineer	\$252.48
	Sr. Market Analyst	\$252.48
	Staff Operations or Transmission Engineer	\$230.00
	Sr. Settlements Analyst	\$192.10
	Assoc. Operations or Transmission Engineer	\$192.10
	QA/QC, Market Analyst	\$177.63
	Settlements Analyst	\$131.73
OTHER		HOURLY RATE
<i>TESTIMONY SUPPORT</i>		
	EXECUTIVE/CEO	\$475.00
	SR. VICE PRESIDENT/SME	\$450.00
	VICE PRESIDENT/SME	\$425.00
	EXECUTIVE DIRECTOR/DIRECTOR	\$400.00

EXHIBIT “C”

City’s Representative:

Tony Foster, Business Operations Bureau
Manager

(562) 570-2015

EXHIBIT “D”

Materials/Information Furnished: None

EXHIBIT “E”

Consultant’s Key Employee:

Kevin Coffee

(916) 985-9461