

AGREEMENT NO.

MEMORANDUM OF AGREEMENT BETWEEN
THE CITY OF LOS ANGELES,
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, AND THE CHINA
SHIPPING PETITIONERS

THIS MEMORANDUM OF AGREEMENT ("Agreement" or "MOA") is made and entered into by and between the NATURAL RESOURCES DEFENSE COUNCIL ("NRDC"), SAN PEDRO AND PENINSULA HOMEOWNERS' COALITION ("SPPHC"), SAN PEDRO PENINSULA HOMEOWNERS UNITED, INC. ("SPPHU"), COALITION FOR CLEAN AIR, INC. ("CCA"), (collectively, the "China Shipping Petitioners" or "Petitioners"), the CITY OF LOS ANGELES, a municipal corporation ("City"), acting by and through its Board of Harbor Commissioners ("Board"), and the SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, a California public entity, 21865 Copley Drive, Diamond Bar, CA 91765 ("SCAQMD").

RECITALS

WHEREAS, on or about June 14, 2004, the City and Petitioners became bound by the Amended Stipulated Judgment ("ASJ") to settle the case of *Natural Resources Defense Council, Inc., et al. v. City of Los Angeles, et al.*, Los Angeles County Superior Court Case No. BS 070017, a case brought by Petitioners challenging the environmental impact report and related findings for the China Shipping Container Terminal Project at Berth 99-109 ("the China Shipping Project");

WHEREAS, the ASJ required the City to adopt mitigation for the China Shipping Project and other Port of Los Angeles ("Port") projects, including to provide \$50 million for the mitigation of air quality and aesthetic environmental impacts of Port operations on the communities surrounding the Port, including both the communities of Wilmington and San Pedro, California, which are especially impacted by the operations of the China Shipping Project ("Mitigation Project");

WHEREAS, the ASJ provided that the Mitigation Payment be committed for use within five years, but that if at the conclusion of the five years any funds remain that had not been allocated, such funds shall be applied to "an independent air quality mitigation program available to administer the funds and mutually agreeable to the Parties, with restrictions sufficient to ensure that such funds are used to reduce Port-related emissions." (ASJ page 24, lines 11-13);

WHEREAS, that five-year term has lapsed, effective June 14, 2009, and approximately \$9,226,944 remains unallocated;

WHEREAS, after considerable investigation, discussion, and negotiation, the City and the China Shipping Petitioners have agreed that \$5,226,944 of these funds shall be disbursed to an independent air quality mitigation program, to be administered by the

Harbor Community Benefits Foundation ("HCBF") for the reduction of Port-related air emissions;

WHEREAS, the Parties agree that a project being implemented by the SCAQMD to develop and demonstrate a catenary zero emissions goods movement system ("the Catenary System Demonstration Project") is a project that will reduce Port-related air emissions; and

WHEREAS, the Parties agree that the SCAQMD should receive \$4,000,000 of the remaining \$9,226,944 funds to fund the Catenary System Demonstration Project;

NOW, THEREFORE, IT IS MUTUALLY AGREED AS FOLLOWS:

I. SERVICES TO BE PERFORMED BY SCAQMD

A. SCAQMD hereby agrees to render to City, as an independent contractor, certain professional, technical and expert services of a temporary and occasional character as set forth in Exhibit "A" ("Scope of Work").

B. Except as otherwise set forth herein, SCAQMD, at its sole cost and expense, shall furnish all services, materials, equipment, subsistence, transportation and all other items necessary to perform the Scope of Work. As between City and SCAQMD, SCAQMD is solely responsible for any taxes or fees which may be assessed against it or its employees resulting from performance of the Scope of Work, whether social security, payroll or other, and regardless of whether assessed by the federal government, any state, the City, or any other governmental entity.

C. SCAQMD acknowledges and agrees that this Agreement does not authorize SCAQMD to perform any services outside the Scope of Work. SCAQMD further acknowledges and agrees that any services it performs outside the Scope of Work are performed as a volunteer and shall not be compensable under this Agreement.

D. The Scope of Work shall be performed by qualified and competent personnel and in accordance with generally accepted professional and technical standards currently in effect. Obligations of this Agreement, whether undertaken by SCAQMD or third parties with whom SCAQMD has contracted ("Contractors"), are and shall be the responsibility of SCAQMD. SCAQMD acknowledges and agrees that this Agreement creates no rights in Contractors with respect to City and that obligations that may be owed to Contractors, including, but not limited to, the obligation to pay Contractors for services performed, are those of SCAQMD alone. Upon Executive Director's written request, SCAQMD shall supply City's Harbor Department ("Department") with all agreements between it and its Contractors.

II. SERVICES TO BE PERFORMED BY CITY

A. City shall furnish SCAQMD, upon its request, all documents and papers in possession of City which may lawfully be supplied to SCAQMD and which are necessary for it to perform its obligations.

B. SCAQMD shall provide the Port of Los Angeles' Executive Director ("Executive Director") with reasonable advance written notice if it requires access to premises of Department. Subsequent access rights, if any, shall be granted to SCAQMD at the sole reasonable discretion of Executive Director, specifying conditions SCAQMD must satisfy in connection with such access. SCAQMD acknowledges that such areas may be occupied or used by tenants or contractors of City and that access rights granted by Department to SCAQMD shall be consistent with any such occupancy or use.

III. EFFECTIVE DATE AND TERM OF AGREEMENT

A. Subject to the provisions of Charter Section 245, the effective date of this Agreement shall be the date of its execution by Executive Director upon authorization of the Board. Petitioners and SCAQMD are aware that the City Council, pursuant to Charter Section 245 of the City of Los Angeles, has the right to review this Agreement. Accordingly, in no event shall this Agreement become effective until the sixth Council meeting day after Board action or the City Council's approval of the Agreement.

B. This Agreement shall be in full force and effect commencing from the date of execution and shall continue until the earlier of the following occurs:

1. Three (3) years have lapsed from the effective date of this Agreement;

or

2. The Board of Harbor Commissioners, in its sole discretion, terminates and cancels all or part of this Agreement for any reason upon giving to Petitioners and SCAQMD thirty (30) days' notice in writing of its election to cancel and terminate this Agreement, pursuant to Article X of this Agreement.

IV. TERMINATION DUE TO NON-APPROPRIATION OF FUNDS

This Agreement is subject to the provisions of the Los Angeles City Charter which, among other things, precludes the City from making any expenditure of funds or incurring any liability, including contractual commitments, in excess of the amount appropriated thereof.

The Board, in awarding this Agreement, is expected to appropriate sufficient funds to meet the estimated expenditure of funds through June 30 of the current fiscal year and to make further appropriations in each succeeding fiscal year during the life of the Agreement. However, the Board is under no legal obligation to do so.

The City, its boards, officers, and employees are not bound by the terms of this Agreement or obligated to make payment thereunder in any fiscal year in which the Board does not appropriate funds therefore. The SCAQMD is not entitled to any compensation or disbursement in any fiscal year in which funds have not been appropriated for the Agreement by the Board.

Although the SCAQMD is not obligated to perform any work under the Agreement in any fiscal year in which no appropriation for the Agreement has been made, the SCAQMD agrees to resume performance of the work required by the Agreement on the same terms and conditions for a period of sixty (60) days after the end of the fiscal year if an appropriation therefore is approved by the Board within that 60-day period. The SCAQMD is responsible for maintaining all insurance and bonds during this 60-day period until the appropriation is made; however, such extension of time is not compensable.

If in any subsequent fiscal year funds are not appropriated by the Board for the work required by the Agreement, the Agreement shall be terminated. However, such termination shall not relieve the parties of liability for any obligation previously incurred.

V. COMPENSATION AND PAYMENT

A. As compensation for the satisfactory performance of the services required by this Agreement, including for services satisfactorily performed prior to the effective date of this Agreement, City shall pay and reimburse SCAQMD at the rates set forth in Exhibit "B" – Payment Schedule.

B. The maximum payable under this Agreement, including all expenses (see Exhibit "B"), shall be Four Million Dollars (\$4,000,000).

C. SCAQMD shall submit invoices in quadruplicate to City upon completion of the milestones and at the rates set forth in the proposed schedule set forth in Exhibit "B." Each such invoice shall be signed by the SCAQMD and shall include the following certification: "I certify under penalty of perjury that the above bill is just and correct according to the terms of Agreement No. _____ and that the payment has not been received."

D. All invoices shall be approved by the Executive Director or his or her designee prior to payment. All invoices due and payable and found to be in order shall be paid within sixty (60) days after approval of the invoice. No later than fourteen (14) business days after receipt of SCAQMD's invoice, City shall either (a) approve the

invoice for payment, or (b) disapprove the invoice and instruct SCAQMD on the requirements needed to obtain approval of the invoice.

SCAQMD shall submit appropriate supporting documents with each invoice, documenting the completed task(s) as defined in the Statement of Work as Deliverables under each task or subtask. The City may require, and SCAQMD shall provide, all documents reasonably required to determine whether amounts on the invoice are allowable expenses under this Agreement.

E. For payment and processing, all invoices should be mailed to the following address:

Accounts Payable Section
Harbor Department, City of Los Angeles
P.O. Box 191
San Pedro, CA 90733-0191

VI. RECORDKEEPING AND AUDIT RIGHTS, AND QUARTERLY REPORTING TO PETITIONERS

A. SCAQMD shall keep and maintain full, complete and accurate books of accounts and records of the services performed under this Agreement in accordance with generally accepted accounting principles consistently applied, which books and records shall be readily accessible to and open for inspection and copying at the premises by the China Shipping Petitioners, the City, its auditors or other authorized representatives. Such books and records shall be maintained by SCAQMD for a period of three (3) years after completion of services to be performed under this Agreement or until all disputes, appeals, litigation or claims arising from this Agreement have been resolved.

B. During the term of this Agreement, China Shipping Petitioners and/or the City may audit, review and copy any and all writings (as that term is defined in Section 250 of the California Evidence Code) of SCAQMD and Contractor(s) arising from or related to this Agreement or performance of the Scope of Work, whether such writings are (a) in final form or not, (b) prepared by SCAQMD, Contractor(s) or any individual or entity acting for or on behalf of SCAQMD or a Contractor(s), and (c) without regard to whether such writings have previously been provided to City. Any audits conducted by the China Shipping Petitioners may be brought by the Petitioners acting either together or individually, but the Petitioners shall not bring multiple audits simultaneously. An audit by the City, however, does not bar the Petitioners from conducting an audit at any time. SCAQMD shall be responsible for obtaining access to and providing writings of Contractor(s). SCAQMD shall provide the Petitioners and/or City at SCAQMD's sole cost and expense a copy of all such writings within fourteen (14) calendar days of a written request by the Petitioners and/or City. Petitioners' and City's right shall also include inspection at reasonable times of the SCAQMD's office or facilities which are engaged in the performance of the Scope of Work. SCAQMD shall, at no cost to City or

Petitioners, furnish reasonable facilities and assistance for such review and audit. SCAQMD's failure to comply with this Article VI shall constitute a material breach of this Agreement and shall entitle City to withhold any payment due under this Agreement until such breach is cured.

C. During the term of this Agreement, SCAQMD shall provide a written report to the China Shipping Petitioners and the City on at least a quarterly basis regarding the progress of the Catenary System Demonstration Project, including a summary of the deliverables performed under the Scope of Work, status of efforts to continue operation of the catenary project after the completion of the demonstration, the expenditure of the budget, any challenges facing the Project, and the remaining deliverables yet to be completed. SCAQMD shall provide this written report to each Petitioner and the City via e-mail.

VII. PRESS STATEMENTS

Any press statement by any of the Parties regarding this Agreement or the funds provided in this Agreement shall represent that the funds are from the settlement of the China Shipping lawsuit initiated by the Petitioners against the Port and City of Los Angeles, and that Petitioners and the City mutually agreed to distribute the funds for the demonstration of the Catenary System Demonstration Project. If a Party fails to include this required language, then the violating Party has to immediately issue a corrected press statement. Petitioners shall be invited to speak at any press events launching or celebrating the Catenary System Demonstration Project.

VIII. INDEPENDENT CONTRACTOR

SCAQMD, its Contractor(s), and their employees in the performance of the work required by this Agreement, are independent contractors and not agents or employees of City. Neither SCAQMD, its Contractor(s), subcontractors nor their employees shall represent themselves as agents or employees of the City and shall have no power to bind the City in contract or otherwise.

IX. INDEMNIFICATION AND INSURANCE

A. Indemnification

Except for the sole negligence or willful misconduct of the City, or any of its Boards, Officers, Agents, Employees, Assigns and Successors in Interest, SCAQMD undertakes and agrees to defend, indemnify and hold harmless the City and any of its Boards, Officers, Agents, Employees, Assigns, and Successors in Interest from and against all suits and causes of action, claims, losses, demands and expenses, including, but not limited to, attorney's fees (both in house and outside counsel) and cost of litigation (including all actual litigation costs incurred by the City, including but not limited to, costs of experts and SCAQMDs), damages or liability of any nature whatsoever, for death or injury to any person, including SCAQMD's employees and

agents, or damage or destruction of any property of either party hereto or of third parties, arising in any manner by reason of the negligent acts, errors, omissions or willful misconduct incident to the performance of this Agreement by SCAQMD or its Contractor(s) of any tier. Rights and remedies available to the City under this provision are cumulative of those provided for elsewhere in this Agreement and those allowed under the laws of the United States, the State of California, and the City.

B. Acceptable Evidence and Approval of Insurance

Electronic submission is the required method of submitting SCAQMD's insurance documents. SCAQMD's insurance broker or agent shall register with the City's online insurance compliance system Track4LA™ at <http://track4la.lacity.org/> and submit the appropriate proof of insurance on SCAQMD's behalf.

C. General Liability Insurance

SCAQMD shall procure and maintain in effect throughout the term of this Agreement, without requiring additional compensation from the City, commercial general liability insurance covering personal and advertising injury, bodily injury, and property damage providing contractual liability, independent contractors, products and completed operations, and premises/operations coverage written by an insurance company authorized to do business in the State of California rated VII, A- or better in Best's Insurance Guide (or an alternate guide acceptable to City if Best's is not available) within SCAQMD's normal limits of liability but not less than One Million Dollars (\$1,000,000) combined single limit for injury or claim. Said limits shall provide first dollar coverage except that Executive Director may permit a self-insured retention or self-insurance in those cases where, in his or her judgment, such retention or self-insurance is justified by the net worth of SCAQMD. The retention or self-insurance provided shall provide that any other insurance maintained by the Harbor Department shall be excess of SCAQMD's insurance and shall not contribute to it. In all cases, regardless of any deductible or retention, said insurance shall contain a defense of suits provision and a severability of interest clause. Additionally, each policy shall include an additional insured endorsement (CG 2010 or equivalent) naming the City of Los Angeles Harbor Department, its officers, agents and employees as Primary additional insureds, a 10-days notice of cancellation for nonpayment of premium, and a 30-days notice of cancellation for any other reasons.

D. Automobile Liability Insurance

SCAQMD shall procure and maintain at its expense and keep in force at all times during the term of this Agreement, automobile liability insurance written by an insurance company authorized to do business in the State of California rated VII, A- or better in Best's Insurance Guide (or an alternate guide acceptable to City if Best's is not available) within SCAQMD's normal limits of liability but not less than One Million Dollars (\$1,000,000) covering damages, injuries or death resulting from each accident or claim arising out of any one claim or accident. Said insurance shall protect against

claims arising from actions or operations of the insured, or by its employees. Coverage shall contain a defense of suits provision and a severability of interest clause. Additionally, each policy shall include an additional insured endorsement (CG 2010 or equivalent) naming the City of Los Angeles Harbor Department, its officers, agents and employees as Primary additional insureds, a 10-days notice of cancellation for nonpayment of premium, and a 30-days notice of cancellation for any other reasons.

E. Workers' Compensation and Employer's Liability

SCAQMD shall certify that it is aware of the provisions of Section 3700 of the California Labor code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and that SCAQMD shall comply with such provisions before commencing the performance of the tasks under this Agreement. Coverage for claims under U.S. Longshore and Harbor Workers' Compensation Act, if required under applicable law, shall be included. SCAQMD shall submit Workers' Compensation policies whether underwritten by the state insurance fund or private carrier, which provide that the public or private carrier waives its right of subrogation against the City in any circumstance in which it is alleged that actions or omissions of the City contributed to the accident. Such Worker's Compensation and occupational disease requirements shall include coverage for all employees of SCAQMD, and for all employees of any Contractor(s) or subcontractor or other vendor retained by SCAQMD.

G. Carrier Requirements

All insurance which SCAQMD is required to provide pursuant to this Agreement shall be placed with insurance carriers authorized to do business in the State of California and which are rated A-, VII or better in Best's Insurance Guide. Carriers without a Best's rating shall meet comparable standards in another rating service acceptable to City.

H. Notice of Cancellation

Each insurance policy described above shall provide that it will not be canceled or reduced in coverage until after the Board of Harbor Commissioners, Attention: Risk Manager and the City Attorney of City have each been given thirty (30) days' prior written notice by registered mail addressed to 425 S. Palos Verdes Street, San Pedro, California 90731.

I. Modification of Coverage

Executive Director, at his or her discretion, based upon recommendation of independent insurance consultant to City, may increase or decrease amounts and types of insurance coverage required hereunder at any time during the term hereof by giving ninety (90) days' prior written notice to SCAQMD.

J. Renewal of Policies

At least thirty (30) days prior to the expiration of each policy, SCAQMD shall direct their insurance broker or agent to submit to the City's online insurance compliance system **Track4LA™** at <http://track4la.lacity.org/> a renewal endorsement or renewal certificate showing that the policy has been renewed or extended or, if new insurance has been obtained, evidence of insurance as specified above. If SCAQMD neglects or fails to secure or maintain the insurance required above, Executive Director may, at his or her own option but without any obligation, obtain such insurance to protect City's interests. The cost of such insurance will be deducted from the next payment due SCAQMD.

K. Right to Self-Insure

Upon written approval by the Executive Director, SCAQMD may self-insure if the following conditions are met:

1. SCAQMD has a formal self-insurance program in place prior to execution of this Agreement. If a corporation, SCAQMD must have a formal resolution of its board of directors authorizing self-insurance.
2. SCAQMD agrees to protect the City, its boards, officers, agents and employees at the same level as would be provided by full insurance with respect to types of coverage and minimum limits of liability required by this Agreement.
3. SCAQMD agrees to defend the City, its boards, officers, agents and employees in any lawsuit that would otherwise be defended by an insurance carrier.
4. SCAQMD agrees that any insurance carried by Department is excess of SCAQMD's self-insurance and will not contribute to it.
5. SCAQMD provides the name and address of its claims administrator.
6. SCAQMD submits its most recently filed 10-Q and its 10-K or audited annual financial statements for the three most recent fiscal years prior to Executive Director's consideration of approval of self-insurance and annually thereafter.
7. SCAQMD agrees to inform Department in writing immediately of any change in its status or policy which would materially affect the protection afforded Department by this self-insurance.

8. SCAQMD has complied with all laws pertaining to self-insurance.

L. Accident Reports

SCAQMD shall report in writing to Executive Director within fifteen (15) calendar days after it, its officers or managing agents have knowledge of any accident or occurrence involving death of or injury to any person or persons, or damage in excess of Five Hundred Dollars (\$500.00) to property, occurring upon the premises, or elsewhere within the Port of Los Angeles if SCAQMD's officers, agents or employees are involved in such an accident or occurrence. Such report shall contain to the extent available (1) the name and address of the persons involved, (2) a general statement as to the nature and extent of injury or damage, (3) the date and hour of occurrence, (4) the names and addresses of known witnesses, and (5) such other information as may be known to SCAQMD, its officers or managing agents.

X. TERMINATION PROVISION

Any party shall have the right to unilaterally terminate and cancel all or any part of this Agreement for any reason upon giving the other parties thirty (30) days' advance, written notice. If a party's decision to unilaterally terminate this Agreement is based on a disputed matter of the performance of one or more of the Parties, then all Parties shall make good faith efforts to resolve any such dispute prior to termination becoming effective. In the event that this Agreement is terminated, SCAQMD will be paid in accordance with Exhibit "B" – Payment Schedule for work performed prior to the effective date of termination. It is agreed that any agreement entered into shall not limit the right of the City to hire additional consultants, or parties to perform the services described in this Agreement either during or after the term of this Agreement.

If this Agreement is terminated and after funds are paid to SCAQMD for work performed prior to the effective date of termination, any remaining funds will be transferred to the Air Quality Mitigation Fund administered by the Harbor Community Benefit Foundation. These remaining funds will be dispersed pursuant to the Memorandum of Agreement between the City, the Harbor Community Benefit Foundation, and the China Shipping Petitioners entered into on _____ and to the ASJ.

XI. SERVICE AGREEMENT

SCAQMD acknowledges that it has been selected to perform the Scope of Work because of its experience, qualifications and expertise. Any assignment or other transfer of this Agreement or any part hereof shall be void provided, however, that SCAQMD may permit Contractor(s) or subcontractor(s) to perform portions of the Scope of Work in accordance with Article I. All Contractor(s) whom SCAQMD utilizes, however, shall be deemed to be its agents. Contractor(s)' performance of the Scope of Work shall not be deemed to release SCAQMD from its obligations under this

Agreement or to impose any obligation on the City to such Contractor(s) or subcontractor(s) or give the Contractor(s) any rights against the City.

XII. CONFLICT OF INTEREST

It is hereby understood and agreed that the parties to this Agreement have read and are aware of the provisions of Section 1090 et seq. and Section 87100 et seq. of the California Government Code relating to conflict of interest of public officers and employees, as well as the Los Angeles Municipal Code (LAMC) Municipal Ethics and Conflict of Interest provisions of Section 49.5.1 et seq. All parties hereto agree that they are unaware of any financial or economic interest of any public officer or employee of City relating to this Agreement. Notwithstanding any other provision of this Agreement, it is further understood and agreed that if such financial interest does exist at the inception of this Agreement, City may immediately terminate this Agreement by giving written notice thereof.

XIII. COMPLIANCE WITH APPLICABLE LAWS

SCAQMD shall at all times in the performance of its obligations comply with all applicable laws, statutes, ordinances, rules, regulations, and orders.

XIV. GOVERNING LAW / VENUE

This Agreement shall be governed by and construed in accordance with the laws of the State of California, without reference to the conflicts of law, rules and principles of such State. The parties agree that all actions or proceedings arising in connection with this Agreement shall be tried and litigated exclusively in the State or Federal courts located in the County of Los Angeles, State of California, in the judicial district required by court rules.

XV. PROPRIETARY INFORMATION

City disclaims any and all ownership or proprietary rights to any and all discoveries, inventions, developments, specifications, patents, know-how, trade secrets, computer programs or other proprietary information developed by SCAQMD's Contractors or subcontractors for the project funded under this Agreement.

XVI. CONFIDENTIALITY

A. The data, documents, reports, or other materials which contain information relating to the review, documentation, analysis and evaluation of the work described in this Agreement and any recommendations made by SCAQMD relative thereto shall be considered confidential and shall not be reproduced, altered, used or disseminated by SCAQMD or its employees or agents in any manner except and only to the extent necessary in the performance of the work under this Agreement. In addition, SCAQMD is required to safeguard such information from access by unauthorized personnel.

B. Certain reports or portions of reports required to be delivered to City and Petitioners ("Receiving Party" individually, or "Receiving Parties" collectively) under this Agreement may contain information that the SCAQMD believes is confidential and/or proprietary ("Confidential Information"). Any such Confidential Information shall be marked on the report(s) as "Confidential" at the time of disclosure to Receiving Party.

(a) Except as set forth in subparagraphs (b) and (c), Receiving Party shall maintain the confidentiality of all Confidential Information and shall not publicly or in any way disseminate or distribute Confidential Information without the express written consent of SCAQMD. At the request of SCAQMD, Receiving Party will return to SCAQMD all Confidential Information furnished to Receiving Party by SCAQMD, including copies thereof.

(b) Not subject to the above restrictions shall be information, including but not limited to, know-how, drawings, designs or specifications that is: (i) in the public domain at the time of transmittal or which comes into the public domain thereafter without the fault of Receiving Party; (ii) in the possession of City and/or Petitioners at the time of transmittal; (iii) received by Receiving Party through third parties without the breach of any confidentiality obligation and; (iv) developed by Receiving Party independently of any information provided to it by SCAQMD.

(c) In the event the Receiving Party is required (and in the case of the City, in the exclusive discretion of the Office of the Los Angeles City Attorney), by deposition, interrogatory, request for documents, subpoena, civil investigative demand, Public Records Act, Freedom of Information Act or U.S. Patriot Act, or similar act or process to disclose any Confidential Information, Receiving Party shall to the extent permitted by law give SCAQMD prompt prior written notice of such requirements so that SCAQMD may (i) seek a protective order or other appropriate remedy at SCAQMD's sole risk and expense and/or (ii) waive compliance with the terms of this Agreement. In the event that SCAQMD waives compliance with the terms of this Agreement or does not obtain a protective order or other remedy within the time required by law for disclosure, Receiving Party may make appropriate disclosure without liability hereunder.

XVII. NOTICES

In all cases where written notice is to be given under this Agreement, service shall be deemed sufficient if said notice is deposited in the United States mail, postage prepaid. When so given, such notice shall be effective from the date of mailing of the same. For the purposes hereof, unless otherwise provided by notice in writing from the respective parties, notice to the Department shall be addressed to Director of Environmental Management, Los Angeles Harbor Department, P.O. Box 151, San Pedro, California 90733-0151, notice to SCAQMD shall be addressed to Deputy Executive Officer, SCAQMD Science and Technology Advancement Office, 21865 Copley Drive, Diamond Bar, CA 91765, and notice to China Shipping Petitioners shall be addressed to the Natural Resources Defense Council, 1314 Second Street, Santa Monica, CA 90401, Attn: Melissa Lin Perrella. Nothing herein contained shall preclude or render inoperative service of such notice in the manner provided by law.

XVIII. TAXPAYER IDENTIFICATION NUMBER ("TIN")

The Internal Revenue Service ("IRS") requires that all contractors and suppliers of materials and supplies provide a TIN to the party that pays them. SCAQMD declares that its authorized TIN is 95-1644052. No payments will be made under this Agreement without a valid TIN.

XIX. WAGE AND EARNINGS ASSIGNMENT ORDERS / NOTICES OF ASSIGNMENTS

The SCAQMD and/or any contractor(s) are obligated to fully comply with all applicable state and federal employment reporting requirements for the SCAQMD and/or contractor(s) employees.

The SCAQMD and/or contractor(s) shall certify that the principal owner(s) are in compliance with any Wage and Earnings Assignment Orders and Notices of Assignments applicable to them personally. The SCAQMD and/or contractor(s) will fully comply with all lawfully served Wage and Earnings Assignment Orders and Notices of Assignments in accordance with Cal. Family Code Sections 5230 et seq. The SCAQMD or Contractor(s) will maintain such compliance throughout the term of this Agreement.

XX. STATE TIDELANDS GRANTS

This Agreement is entered into in furtherance of and as a benefit to the State Tidelands Grant and the trust created thereby. Therefore, this Agreement is at all times subject to the limitations, conditions, restrictions and reservations contained in and prescribed by the Act of the Legislature of the State of California entitled "An Act Granting to the City of Los Angeles the Tidelands and Submerged Lands of the State Within the Boundaries of Said City," approved June 3, 1929 (Stats. 1929, Ch. 651), as amended, and provisions of Article VI of the Charter of the City of Los Angeles relating

to such lands. Petitioners and SCAQMD agree that any interpretation of this Agreement and the terms contained herein must be consistent with such limitations, conditions, restrictions and reservations.

XXI. INTEGRATION

This Agreement contains the entire understanding and agreement between the parties hereto with respect to the matters referred to herein. No other representations, covenants, undertakings, or prior or contemporaneous agreements, oral or written, regarding such matters which are not specifically contained, referenced, and/or incorporated into this Agreement by reference shall be deemed in any way to exist or bind any of the parties. Each party acknowledges that it has not been induced to enter into the Agreement and has not executed the Agreement in reliance upon any promises, representations, warranties or statements not contained, referenced, and/or incorporated into the Agreement. **THE PARTIES ACKNOWLEDGE THAT THIS AGREEMENT IS INTENDED TO BE, AND IS, AN INTEGRATED AGREEMENT.**

XXII. SEVERABILITY

Should any part, term, condition or provision of this Agreement be declared or determined by any court of competent jurisdiction to be invalid, illegal or incapable of being enforced by any rule of law, public policy, or city charter, the validity of the remaining parts, terms, conditions or provisions of this Agreement shall not be affected thereby, and such invalid, illegal or unenforceable part, term, condition or provision shall be treated as follows: (a) if such part, term, condition or provision is immaterial to this Agreement, then such part, term, condition or provision shall be deemed not to be a part of this Agreement; or (b) if such part, term, condition or provision is material to this Agreement, then the parties shall revise the part, term, condition or provision so as to comply with the applicable law or public policy and to effect the original intent of the parties as closely as possible.

XXIII. CONSTRUCTION OF AGREEMENT

This Agreement shall not be construed against the party preparing the same, shall be construed without regard to the identity of the person who drafted such and shall be construed as if all parties had jointly prepared this Agreement and it shall be deemed their joint work product; each and every provision of this Agreement shall be construed as though all of the parties hereto participated equally in the drafting hereof; and any uncertainty or ambiguity shall not be interpreted against any one party. As a result of the foregoing, any rule of construction that a document is to be construed against the drafting party shall not be applicable.

XXIV. TITLES AND CAPTIONS

The parties have inserted the Article titles in this Agreement only as a matter of convenience and for reference, and the Article titles in no way define, limit, extend or

describe the scope of this Agreement or the intent of the parties in including any particular provision in this Agreement.

XXV. MODIFICATION IN WRITING

This Agreement may be modified only by written agreement of all parties. Any such modifications are subject to all applicable approval processes required by, without limitation, City's Charter and City's Administrative Code.

XXVI. WAIVER

A failure of any party to this Agreement to enforce the Agreement upon a breach or default shall not waive the breach or default or any other breach or default. All waivers shall be in writing.

XXVII. EXHIBITS; ARTICLES

All exhibits to which reference is made in this Agreement are deemed incorporated in this Agreement, whether or not actually attached. To the extent the terms of an exhibit conflict with or appear to conflict with the terms of the body of the Agreement, the terms of the body of the Agreement shall control. References to Articles are to Articles of this Agreement unless stated otherwise.

XXVIII. COUNTERPARTS

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which shall constitute together one and the same instrument.

XXIX. FORCE MAJEURE

No Party shall be liable or deemed to be in default for any delay or failure to perform its obligations under this Agreement if such delay or failure results from acts of God, riot, war, civil unrest, flood, earthquake, or other cause beyond such Party's reasonable control.

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IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date to the left of their signatures.

THE CITY OF LOS ANGELES, by its Board of Harbor Commissioners

Dated: _____

By: _____
Eugene D. Seroka
Executive Director

Attest: _____
Secretary

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, a California public agency,

Dated: _____

By: _____
Barry R. Wallerstein
Executive Officer

APPROVED AS TO FORM:
Kurt R. Wiese, SCAQMD General Counsel

Dated: _____

By: _____

PETITIONERS:

Dated: 9/18/15

By: 
Melissa Lin Perrella
Natural Resources Defense Council

Dated: _____

By: _____
San Pedro and Peninsula Homeowners' Coalition

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date to the left of their signatures.

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Dated: _____

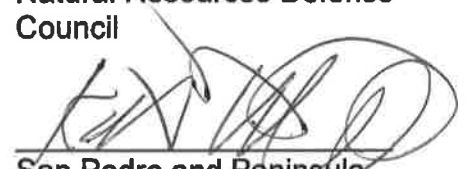
By: _____

PETITIONERS:

Dated: _____

By: _____
Melissa Lin Perrella
Natural Resources Defense Council

Dated: 9/21/15

By: 
San Pedro and Peninsula Homeowners' Coalition

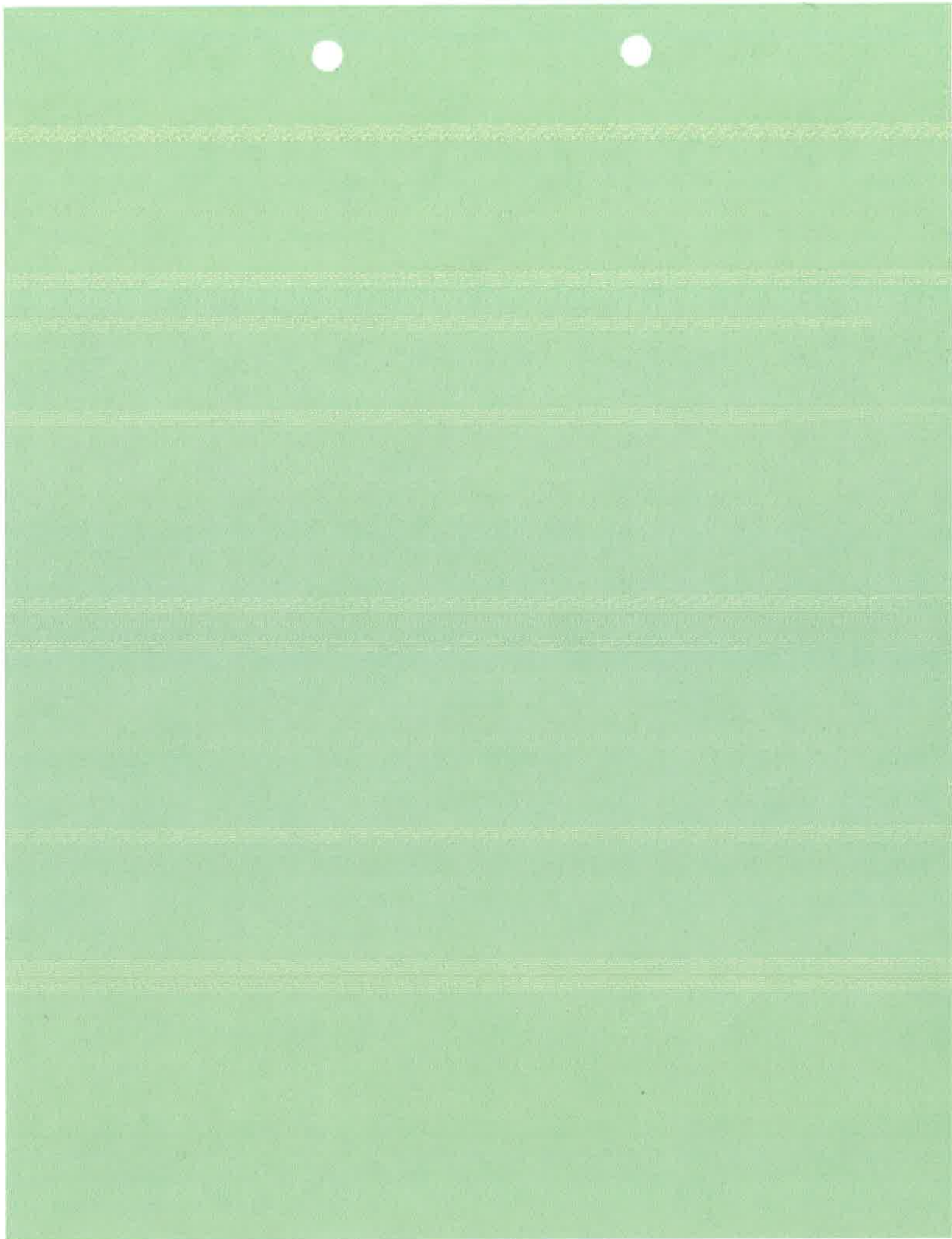


Exhibit A – Scope of Work

ATTACHMENT 1 STATEMENT OF WORK FOR SIEMENS INDUSTRY INC

CONSTRUCT A ONE MILE CATENARY SYSTEM, AND DEVELOPMENT AND DEMONSTRATION OF CATENARY ZERO EMISSIONS GOODS MOVEMENT SYSTEM

The development and demonstration of zero emissions technologies for goods movement is one of SCAQMD's top priorities. This project will initiate the development and demonstration of a catenary, zero emissions goods movement corridor. The primary goal of this project is to promote the implementation of zero emission goods movement technologies, and the secondary goal is to demonstrate the most viable technology to be adopted for a future, regional zero-emissions corridor.

CONTRACTOR will demonstrate a catenary truck technology in southern California with a major original equipment manufacturer (OEM) partner. The Class 8 truck equipped with a hybrid drive system will extend the operating range of the trucks beyond the all-electric range of the catenary system, enabling the trucks to perform regional drayage operations and bridge gaps in catenary infrastructure as it is deployed on a regional level.

CONTRACTOR and its OEM partner will develop and integrate one hybrid electric class 8 truck and configure it to operate on the catenary system. The CONTRACTOR's pantograph system will allow for seamless connection and detachment from the catenary power source. The truck will be used for integration and testing of the pantograph and electrical hybrid drive and will be evaluated on CONTRACTOR's catenary test track in Germany. The vehicle will use the OEM's hybrid propulsion system and be upgraded with a pantograph system to operate on the catenary system.

CONTRACTOR will design and provide four (4) adaptable pantograph systems for the project. One of the pantographs will be used for CONTRACTOR's OEM partner's truck and three of the systems will be provided to third party integrators designated by SCAQMD. CONTRACTOR will assist third party integrators with integrating pantographs into their vehicles.

The infrastructure portion of the project will consist of one mile of catenary system in both directions along Alameda Street in the city of Carson. The approximate one mile segment extends north to south from E. Lomita Blvd to the Dominguez Channel. Corresponding with the operational range of the pantographs, two parallel catenary wires will be installed above the roadway. The connection to the grid will occur at the middle of the system where a containerized traction power rectifying substation, one containerized site office, test track and control center will be placed. CONTRACTOR will work with the local utility in designating a location for the connection to a supply voltage compatible with the catenary system.

CONTRACTOR will demonstrate the catenary system and trucks for 12 months after which the system will be decommissioned unless the system will become part of a subsequent phase connecting the ports to the rail yards. SCAQMD shall find a system owner and

operator to turn over the system at the end of this project if continuance of the system is determined by SCAQMD. CONTRACTOR shall notify the City of Carson of the disposition of the system and assist SCAQMD in seeking the approval if system is to remain.

CONTRACTOR agrees to perform the following tasks:

Task 1 – Basic Infrastructure System Design

CONTRACTOR shall design the infrastructure consisting of one mile of catenary system supplying power via overhead lines for one lane in each direction and the layout of the power supply for the overhead catenary line system (OCL).

Task 1.1 - Construction and Demonstration Site Evaluation

CONTRACTOR shall construct the electric infrastructure for the Alameda test corridor using overhead power lines above the road one lane in each direction. The lines will be suspended from cantilevered arms attached to central poles and a roadside power substation that feeds the overhead lines. CONTRACTOR will complete the following:

- Obtain soil data
- Determine right of way limitations
- Determine utility obstructions and interferences
- Obtain CAD files of existing alignment
- Identify underground utilities and obstructions

Task 1.2 - Basic Design of Traction Power Supply

CONTRACTOR shall install and operate the traction power substations (TPS) in the space located under the Sepulveda overpass. The TPS shall use components proven in electric railways with a special design and layout that will be encapsulated in a conventionally sized road container. CONTRACTOR shall perform the following design and planning tasks for the TPS:

- Determine TPS loads
- Obtain Utility requirements
- Obtain Electro Magnetic Compatibility requirements
- Prepare single line and protection diagram
- Define SCADA requirements
- Prepare communication block diagram
- Prepare Equipment schedule
- Prepare outline drawing with sizes and weights
- Prepare external interconnection wiring/cabling schedule
- Prepare site layout drawing
- Outline drawing with sizes and weights
- External interconnection wiring/cabling schedule
- Site layout drawing
- Ground grid requirements
- Foundation requirements

Task 1.3 - Basic Design Site Offices and Control Center

CONTRACTOR shall make provision for containerized site offices under the Sepulveda overpass adjacent to the location proposed for the TPS. The site offices shall have the following configuration:

- Eight work stations fully equipped
- Meeting room for eight
- Kitchenette/toilets / lavatory/shower
- Air conditioning, heating and intrusion alarm
- Uninterrupted power supply

CONTRACTOR shall design the site offices to contain the control center of the project demonstration. The control center shall be in live radio communication with all the test vehicles and drivers and allowing the Supervisory Control and Data Acquisition (SCADA) control of the TPS and any other associated infrastructure. The control center shall include the following equipment and functions:

- Video system for the live video display of test track and vehicles
- Radio base station and antennae for live radio communication with the test vehicle
- SCADA application for the TPS
- Communication to emergency services

Task 1.4 - Basic Design of the Temporary Maintenance Facility

CONTRACTOR shall make a provision for a small maintenance building under the Sepulveda overpass, adjacent to the TPS and site office containers. The maintenance building shall have the following configuration:

- Perimeter fencing for temporary facilities and test area
- Perimeter CCTV surveillance and access control
- Maintenance shed with mechanical and electrical workshop

Task 1.5 - Design of the Temporary Test Track

CONTRACTOR shall design and construct a 120 yard test track fully equipped with overhead catenary lines to allow dynamic testing off the public street. The test track shall be used for adjustments of software, calibration of sensors prior to full testing on Alameda Street under normal traffic conditions. CONTRACTOR shall design test track to connect to the TPS.

Task 1.6 - Basic Design of the OCL

CONTRACTOR shall design the overhead lines at the minimum height and clearances stipulated by California's General Order 95. Installation of the OCL shall comply with the Rule 37 requirements for bare copper conductors used in 650 VDC systems as currently implemented above and across streets, roads and thoroughfares in the State of California. CONTRACTOR shall perform the following design and planning tasks for the OCL:

- Sectionalizing diagram
- Master overlap chart

- Conductor and system particulars
- Pole and foundation requirements
- Base map
- OCL layout
- Preliminary traffic concept

Deliverables:

- Site Evaluation Report
- Substation design, single line diagram
- Container design - room layout
- Cabling plan
- Architectural design OCL
- Layout plan OCL
- List of Design documentation for approval and permitting submitted to CoC

Task 2 – CEQA and Construction Permitting

CONTRACTOR shall obtain all necessary approvals, consents and permits and make all filings regarding the construction, ownership, operation and maintenance of the OCL.

Task 2.1 - CEQA Process

CONTRACTOR shall prepare documentation for the CEQA approval process and provide the City of Carson with the documentation.

Deliverables:

- CEQA approval

Task 2.2 - Construction Permitting Process

CONTRACTOR shall prepare documentation for construction, encroachment and excavation permit required by the City of Carson. CONTRACTOR shall obtain approval documentation from the Alameda Corridor Transportation Authority. CONTRACTOR shall make all clarifications regarding right of way usage with the City of Carson.

Deliverables:

- Construction permit

Task 2.3 - Operational Permitting Process

CONTRACTOR shall assure that the infrastructure is designed as required to receive all necessary permits to operate on Alameda Street during the one year demonstration phase.

Deliverables:

- Operation permit

Task 3 – Infrastructure System Detailed Design

CONTRACTOR shall design the infrastructure system which consists of substations supplying the traction power and an overhead contact line distributing the traction power to the trucks. The electric infrastructure design will be situated alongside the road and will not have direct interference with the road. The system shall be able to manage regenerative braking energy from the trucks connected to the system. The height of the system shall be designed to be above standard vehicle dimensions and clearances. The horizontal position of the overhead contact line along the highway shall be maintained by tensioning devices installed inside the poles supporting the overhead contact line system. At civil structures (bridges and tunnels) with limited clearances to assure the required electrical safety distances the overhead contact line system may be interrupted or special constructions utilized such as a rigid catenary system.

Task 3.1 - Detail Design of the Traction Power Supply

CONTRACTOR shall design the TPS for the Alameda test corridor with standard components for electrical railways including medium voltage and direct current switchgear, 1 MVA power transformer, 12-pulse-diode rectifier. The operating voltages of the TPS will be 12,000 VAC medium voltage, 650 VDC rectified traction voltage nominal OCL input, and 120 VAC auxiliary power for low voltage uses. CONTRACTOR shall create the following documents for the design of the TPS:

- Equipment drawings
 - Prefabricated building
 - AC switchgear
 - Traction Power Transformer
 - Rectifier
 - DC switchgear
 - Auxiliary power equipment
 - SCADA equipment
- Wiring and interconnection diagrams
- Foundation and ground mat drawings
- Wire and cable raceway drawings
- Relay protection coordination description

Deliverables:

- Engineering control list detailing documents produced and status

Task 3.2 - Detail Design OCL

CONTRACTOR shall design the OCL with two parallel catenary systems that are installed above each lane in both directions of the roadway. The height of the contact wires shall be designed to be in accordance with California General Order 95 for overhead lines and with NESC requirements where applicable. The accurate position of the overhead contact line along the roadway will be assured by mechanical tensioning devices installed inside in certain poles of each overhead line section. The poles will be cylindrical or tapered cylindrical/conical. Oversized hollow poles will be used at the extremes of every mechanical tensioned OCL section with the tensioning weights sliding inside the pole. The poles will be hot galvanized or painted according to road standards. The concrete foundations for the poles will be cylindrical. Diameter and depth of the foundations will be determined by detailed

soil investigations and static calculations. The reinforcement bars of the foundations will be continuously welded and connected to the foundation anchoring bolts with jumpers to serve as ground electrode for each pole.

CONTRACTOR shall develop the detailed engineering and layout to reflect the exact distance between poles determined by road curvature and exact location of underground utilities. CONTRACTOR shall create the following documents for the design of the OCL:

- System arrangement drawings
- Product information
- Assembly shop drawings
- Pole and foundation shop drawings

Deliverables:

- Engineering control list detailing documents produced and status

Task 3.3 - Complete Description of Test Procedures

CONTRACTOR shall create factory acceptance test procedures and field acceptance test procedures for the final inspection.

Deliverables:

- Acceptance test procedures

Task 4 – Procurement and Manufacturing - Infrastructure

CONTRACTOR shall purchase materials and components for the power supply substation and the OCL. CONTRACTOR shall manufacture, assemble infrastructure equipment and prepare documents for the power supply substation and the OCL equipment.

Task 4.1 - Power Supply Substation

CONTRACTOR shall perform the following:

- Manufacture or purchase AC switchgear, traction power transformer, rectifier, DC switchgear and prefabricated building
- Factory assemble prefabricated TPS
- Perform complete factory acceptance test of TPS
- Prepare Operation and Maintenance documentation
- Prepare training plan for test personnel

Deliverables:

- Protocol and Documents of Factory Acceptance Tests as to be defined in Task 3.3

Task 4.2 - OCL Equipment

CONTRACTOR shall manufacture or purchase Poles and OCL material; prepare assembly construction drawings and operation and maintenance documentation.

Deliverables:

- Protocol and Documents of Factory Acceptance Tests as to be defined in Task 3.3

Task 4.3 - Auxiliary Infrastructure to Support Demonstration Tests

CONTRACTOR shall manufacture or purchase equipment and works for the site office, control center, maintenance facility and test track.

Deliverables:

- Protocol and Documents of Factory Acceptance Tests as to be defined in Task 3.3

Task 5 – Installation and Commissioning of Infrastructure

CONTRACTOR shall perform the installation of the OCL and power supply. CONTRACTOR shall perform tests to assure that operation of the OCL and power supply meets specifications from detailed design.

Task 5.1 - OCL

CONTRACTOR shall execute works for the foundations and duct bank, shipment and installation for the OCL.

Deliverables:

- Construction and Installation Acceptance Report as to be defined in Task 3.3

Task 5.2 - Power Supply

CONTRACTOR shall execute works for the foundation and duct bank, shipment and installation for the power supply.

Deliverables:

- Construction and Installation Acceptance Report as to be defined in Task 3.3

Task 5.3 - Commissioning OCL and TPS

CONTRACTOR shall perform pre-commissioning of traction power substation, arrange MV power feed to electrical grid with utility, commission and power-up of traction power substation and perform operation and maintenance personnel training

Deliverables:

- Commissioning Test Reports as to be defined in Task 3.3

Task 5.4 - Auxiliary Infrastructure to Support the Demonstration Tests

CONTRACTOR shall execute works for the installation of the site offices, control center, maintenance facility and test track.

Deliverables:

- Construction and Installation Acceptance Report as to be defined in Task 3.3

Task 6 –Pantograph System Definition and Interface Identification

CONTRACTOR's pantograph shall assure the safe connecting and disconnecting with the overhead contact line within the speed range of 0 to 55 mph. The current collector of the pantographs shall actively compensate the sideways movement of the vehicle within the lane by using a system of sensors and actuators. CONTRACTOR shall assure the detection of the contact line and the processing of the data provided by the integrated sensors in each vehicle. A human-machine-interface (HMI) and a diagnostic and configuration system for the interaction with the driver shall be developed and shall be installed in each vehicle.

CONTRACTOR shall provide four adaptable pantographs to be integrated in the following project vehicles types for operation with the catenary infrastructure:

- Volvo Hybrid Truck
- TransPower CNG Hybrid Truck
- TransPower Battery Truck
- One future truck to be defined by SCAQMD

Task 6.1 - Interface Clarification and System Definition

CONTRACTOR shall develop a comprehensive set of documents and technical drawings describing the onboard system architecture, components and functions. These documents shall identify the generic interfaces for the integration to each project truck type.

Task 6.2 - Technical Support for Pantograph System (PAN) Integration CONTRACTOR

shall conduct technical workshops to identify interfaces that need to be developed to integrate the PAN into each project truck type. The onboard interfaces shall cover all necessary aspects for integrating the PAN onboard each of the project trucks, including but not limited to the specifications of:

- Mechanical interfaces
- Wiring and cabling interfaces
- Electric interfaces
- Pneumatic interfaces
- Control and communication interfaces

CONTRACTOR shall work to achieve a list of interfaces with each project truck manufacturer for all different project truck types and for each interface specifying the title, parameters, responsibilities, timeline and required method of demonstration and test. CONTRACTOR shall produce for each of the project vehicle types engineering drawings and documents for the interface in sufficient detail for each of the vehicle integrators to fully specify, engineer, integrate and test.

CONTRACTOR shall work with the additional truck manufacturer to be defined by SCAQMD and adapt PAN interfaces within reasonable limits as performed for each of the project vehicle types.

Deliverables:

- Interface clarification forms (ICF) with Volvo
- ICF with TransPower

Task 7 – Pantograph Engineering Integration and Certification

CONTRACTOR shall complete the engineering of the corresponding PAN kits described in detail for each project truck type which consists of the following subsystems:

- Current collector for each pole of the OCL including the corresponding arms, pneumatic actuators for raising the arms, and carbon contact stripes
- Top Box including electric actuators
- Lifting unit to raise current collector arms and top box
- Sensor equipment and control system
- HMI

CONTRACTOR shall prepare the following documents and drawings for each of the above subsystems:

- Equipment mechanical drawings integrated in 3D design model
- A list of parts and specification of each part
- Wiring and interconnection diagrams
- Wire and cable raceway drawings
- Designs for insulation monitoring and electrical protection coordination
- Factory acceptance test procedures
- Field acceptance test procedures

Task 7.1 - Pantograph Engineering - Volvo Vehicle

CONTRACTOR shall work with Volvo to engineer the vehicle to operate with the PAN with necessary hardware and software adaptation, power electronics adaptation for continuous power supply and communication and control systems.

CONTRACTOR shall work with Volvo to upgrade the electric power train of the truck; includes DC/DC converter integration, communication integration and energy management control. CONTRACTOR shall execute works to prepare engineering documents to adapt the pantograph system according to defined interface clarification form.

Deliverables:

- Engineering control lists for the detailed design documentation

Task 7.2 - Not Used

Task 7.3 - Pantograph Engineering - TransPower Battery Electric Vehicle

CONTRACTOR shall execute works to prepare engineering documents to adapt the pantograph system according to defined interface clarification form.

Deliverables:

- Engineering control lists for the detailed design documentation

Task 7.4 - Pantograph Engineering - TransPower CNG Hybrid Vehicle

CONTRACTOR shall execute works to prepare engineering documents to adapt the pantograph system according to defined interface clarification form.

Deliverables:

- Engineering control lists for the detailed design documentation

Task 7.5 - Pantograph Engineering - Third Party Electric or Hybrid Vehicle

CONTRACTOR shall execute works to prepare engineering documents to adapt the pantograph system according to defined interface clarification form.

Deliverables:

- Engineering control lists for the detailed design documentation

Task 8 – Pantograph Production, Assembly and Integration into Each Vehicle

CONTRACTOR shall perform sub-tasks 8.1 through 8.4 for each of the following vehicles to be tested in the demonstration project:

- Volvo hybrid vehicle
- TransPower battery electric vehicle
- TransPower CNG hybrid vehicle
- Third party electric or hybrid vehicle to be determined by SCAQMD

Task 8.1 - Procurement

CONTRACTOR shall procure off-the-shelf parts and parts that will be manufactured to assemble each full PAN kit.

Task 8.2 - Manufacturing/Assembly

CONTRACTOR shall manufacture and assemble the PAN kits which include basic testing at the components level in specialized lab test installations. CONTRACTOR will subcontract to qualified specialized subcontractors for some specialized assembly tasks.

Task 8.3 - Shipment

CONTRACTOR shall make the PAN kits available at the facilities of each OEM truck manufacturer in time for assembly and in coordination with the particular manufacturing schedule of each OEM truck manufacturer.

Task 8.4 - Installation of the Pantograph in Each Vehicle Type

CONTRACTOR shall provide to each truck manufacturer and project truck type a total of two consecutive weeks of expert support at their manufacturing facilities for installation of the pantograph including the factory acceptance testing.

Deliverables:

- Report of all orders placed to suppliers for components of the PAN assembly
- Manufacturing reports and factory acceptance test protocols of each PAN kit
- Bills of lading of each PAN kit to the corresponding OEM truck manufacturer
- Factory acceptance test of the PAN components installed on each vehicle type as defined as part of engineering documentation

Task 9 – Catenary Truck and Infrastructure Demonstration

CONTRACTOR shall demonstrate the catenary system infrastructure and trucks for a period of 12 months beginning after the commissioning of infrastructure and testing of first truck. CONTRACTOR shall provide and maintain infrastructure and power, monitor the operation with a remote operation and control center including SCADA application, on-site services and technical expert engagement.

Task 9.1 - Component Integration Testing in Germany

CONTRACTOR shall use the Volvo hybrid truck for component integration testing for two seven week test phases on CONTRACTOR's test track in Germany and at Volvo's facilities in Sweden.

Deliverables:

- Test Report

Task 9.2 Demonstration Phase Support

CONTRACTOR shall provide staff and equipment for the demonstration phase and test program that shall include and not be limited to site supervision and infrastructure demonstration. Invoicing for the task shall be done quarterly.

Deliverables:

- Quarterly Test Report

Task 9.3 - Vehicle and Infrastructure Tests and Data Collection

CONTRACTOR shall demonstrate the catenary infrastructure system with vehicle manufacturers and their trucks in non-commercial operation simulating standard drayage cycles in port truck operation.

CONTRACTOR shall repeat tests with different truck models including tests that shall require a combination of different trucks running simultaneously.

CONTRACTOR shall perform the following tests with the respective truck manufacturers, make measurements, collect data and provide test reports to the SCAQMD Project Officer:

1. Infrastructure Commissioning Tests: Shall be completed in advance of the demonstration of the vehicles.
2. Energy Efficiency Tests: Shall consist of recording energy consumption, peaks, and averages in all operating conditions (speed, acceleration, braking, load and gradient).
3. TransPower Truck Performance Tests: To be performed for both battery electric and CNG hybrid models of TransPower Trucks. The tests will consist of extensive running,

- and recording vehicle performance parameters such as speed, acceleration, braking, and noise in various operating scenarios.
4. PAN Performance Test: Monitor contact quality for different operation speeds, acceleration, deceleration, driving to the edges of the lane.
 5. Drive In/ Drive Out Tests: To be performed at designated locations of the test track there will be a lane for simulating drive into the catenary and a lane to simulate drive out.
 6. Overtake Test: To be performed in different scenarios and conditions where one truck overtakes another slow vehicle. The test will be repeated at different speeds, loads, gradients.
 7. Emergency/Maximum Braking Tests: The tests will be conducted to prove full braking performance of each model of trucks and effect of car body and cabin oscillations on the pantograph to OCL contact quality. Test will be repeated for each truck in different conditions of load and road surface.
 8. Operating At The Edge Test: The nominal operation of the proposed system is with the OCL wire above the central axis of the lane, and the pantograph oscillating laterally to evenly distribute the wear of its graphite bar. This test will monitor system performance variables (amplitude of lateral movement, threshold for pantograph lowering, reaction times) as the truck drives along the test corridor with an increasing deviation from the center of the line, and thus from the center of the OCL.
 9. Proof of Fail-Safe Pantograph Design: Different failures (mechanical, electrical and sensors) of the overall onboard system will be simulated, to test that pantograph always lowers at least to the road vertical clearance limit (e.g. 14 ft for roads, 16 ft for highways) or that a clear danger indication is given to the driver.
 10. Ergonomic Tests, For All Driver User Interface Elements: Definition of all graphical user interface (GUI) elements will be fine-tuned with each of the OEM vehicle manufacturer. In the demonstration phase extensive testing will be conducted with different drivers to assess ergonomics, reaction times of the drivers, perceived comfort or discomfort.
 11. Weather And Ambient Condition Tests: Certain tests (performance, overtake, drive in/out, controlled retracting of pantograph near flanking obstacle) will be repeated in different weather extremes such as rain, wind, day/night conditions as well as different relative positions of the sun (to the extent optical sensors are involved).
 12. New Algorithm Tests: CONTRACTOR will optimize algorithms especially as regards the actuator elements of the pantograph (down/up sequence, and the lateral movement).

Deliverables:

- Test results report

Task 9.4 – Catenary System Safety Analysis

CONTRACTOR shall perform a Failure Modes and Effects Analysis (FMEA) that includes a review of all components, assemblies, and subsystems of the catenary system, to identify failure modes, and their causes and effects. CONTRACTOR shall demonstrate that the failure modes identified produce only acceptable levels of risk. The behavior of the catenary system in safety critical failures shall be demonstrated through specific safety related tests in different phases of the system lifecycle from engineering phase and continuing through the

manufacturing, installation, commissioning, system demonstration and final decommissioning phase to determine its safety for use on public roads. Tests will verify and validate the assumptions that were made in the FMEA analysis.

Deliverables:

- FMEA analysis

Task 10 – Determine Owner and Operator of System

Task 10.1 - Determine Future Use of Catenary Demonstration System

SCAQMD and CONTRACTOR shall survey stakeholders to determine future projects that would utilize the demonstration catenary infrastructure located on Alameda Street.

Task 10.2 - Determine System Owner and Transfer Ownership

SCAQMD shall determine the owner and operator of the catenary infrastructure system if it is determined that the system will become part of a larger wayside power network. CONTRACTOR shall prepare and execute documents necessary to transfer ownership to an entity determined by SCAQMD.

Task 10.3 - Notify City of Carson

SCAQMD shall determine disposition of catenary infrastructure 2 months prior to end of demonstration phase. CONTRACTOR shall notify City of Carson of disposition of infrastructure 1 month prior to end of demonstration phase and assist SCAQMD in seeking the approval if system is to remain.

Task 11 – Project Management and Reporting

CONTRACTOR shall be responsible for management of all tasks outlined in this Contract unless otherwise noted. CONTRACTOR shall submit monthly reports, quarterly reports, a Draft and Final report evaluating the overall project and a two page project synopsis as described in the Deliverables section. Monthly meetings shall be held to report and discuss the project activities for the month and the monthly report. Invoicing shall be done semi-annually starting in project month 6.

Task 11.1 – Maintain the Project Master Schedule

CONTRACTOR shall conduct regular communications among team members and project participants to assure timely completion of project tasks.

Task 11.2 – Reporting

CONTRACTOR shall provide reports on the status and progress on completion of the tasks and deliverables of this contract as described in the Deliverables section.

Deliverables:

- Updates to the Master Schedule
- Monthly reports
- Quarterly reports

- Draft and Final Reports
- 2-Page Project Synopsis

Task 12 – System Decommissioning and Site Restoration

CONTRACTOR shall decommission all catenary infrastructure equipment and remove from the demonstration site. CONTRACTOR shall

- a. Break down catenary foundations to a minimum of 12" below grade. Remainder of foundation will be covered and abandoned in place.
- b. Leave new medians and median modifications in place, including curb and gutter
- c. Leave area under Sepulveda overpass clean and graded, with no equipment remaining
- d. Leave new paving in Carson right of way adjacent to the Sepulveda overpass in place
- e. Meet City of Carson request of perennial flowering shrubs to be planted in medians

If the catenary system will be used for a future phase of the program connecting the ports to the rail yards then the catenary system will remain in place. If the catenary system will remain then CONTRACTOR shall deactivate the system equipment from grid power.

Deliverables:

- Decommissioning Report

DELIVERABLES

In addition to the deliverables set forth in the above-referenced statement of work, CONTRACTOR shall supply the following reports to the SCAQMD under this Contract. Each submitted report shall be electronically or stapled, not bound, printed in black ink, double-sided type, on an 8-1/2 by 11 inch page, and shall include camera-ready originals.

1. CONTRACTOR shall update the SCAQMD Project Officer by voice or email whenever significant achievements or problems occur.
2. CONTRACTOR shall provide monthly progress reports at completion of major tasks and quarterly during the demonstration period. CONTRACTOR shall provide the status and progress on: completion of the tasks and deliverables of this contract; milestones completed; delays; problems; and issues and their resolutions.

CONTRACTOR shall submit electronic copies of each report to SCAQMD Project Officer, and to SCAQMD's Contracts Administrator - Technology Advancement, in conjunction with invoice(s) for the same period. Each progress report shall include, but not be limited to, the following:

- a) Reference to SCAQMD contract number, title of project and reporting time period, and the following subheadings and description thereof.
- b) Description of work completed during the reporting period, including a discussion of problems encountered and how those problems were resolved; and other relevant activities.
- c) When available, color photographs of the experimental apparatus and any results that can be better transmitted photographically.

The progress reports shall also contain (a) operating hours, (b) miles traveled, (c) fuel consumption, (d) percentage availability, (e) mean time between failures, (f) maintenance hours, (g) testing, test results and data, and (h) such other similar information as the parties may mutually agree in writing. Discussion of work planned for the next reporting period.

3. CONTRACTOR shall deliver Draft and Final Reports. Three stapled copies of draft final report for review, comment, and approval shall be submitted. CONTRACTOR shall submit three copies of the draft final report to SCAQMD's Project Officer, as well as an electronic copy in Microsoft Word format. This document shall be considered in the public domain, in conformance with the California Public Records Act (Government Code Section 6250 et seq.). Any trade secret information may be submitted to SCAQMD in a separate report in which the trade secret information is specifically identified. SCAQMD agrees to treat such trade secret information in accordance with its Public Records Act guidelines relating to trade secret information. SCAQMD shall complete its review of the draft final report within two months of its receipt from CONTRACTOR, through CONTRACTOR's representative. The draft final report shall include, but not be limited to, the following:

- a) Reference to SCAQMD contract number, title of project and project period.
- b) Project background and objectives.
- c) An executive summary up to three pages in length to include:
 - a short, definitive statement of the problem/project;
 - objective of the project, including emission control objectives or goals;
 - reference to SCAQMD Rules if applicable;
 - subject of the project including the technology;
 - conclusions (potential emissions impact, cost implications, and other implications);
 - recommendations (design changes/optimization, other applications of the technology, and commercialization paths); and
 - acknowledgment of all project sponsors.
- d) A detailed description of the scope of work. A copy of the statement of work should be attached as an Appendix.
- e) Analysis of data from testing and measurement performance, durability, etc. should be in the main body of the report. The graphical presentation of the data analysis, particularly bar graphs, is recommended. The actual data and the testing protocols used should be attached as Appendices.
- f) Each Task proposed in the Statement of Work should have its own chapter. Findings or results of each task should be discussed in these chapters, and should include the following:
 - Discussion of actions completed
 - Discussion of risks and corrective actions
 - Task Performance
- g) Explore the following goals and objectives of the project:
 - Promote the implementation of zero emission goods movement technology
 - Demonstrate the most viable technology for future regional zero emission corridor
 - Prove out:
 - Catenary system and truck interface using various system architectures operating on the catenary
 - Vehicle regenerative braking and battery charging through the catenary
 - Vehicle and system electrical loads
 - Determine costs
 - Catenary system construction costs/mile
 - Operating costs
 - Integration of pantograph per truck costs
 - Electric fuel - kWh/mile costs
 - Determine system owner and operator
 - Establish business case
 - Identify business drivers and financial metrics
 - Analysis of costs, benefits and risks
- h) Problems – A discussion of significant problems encountered during the contract and how they were resolved.
- i) Costs – A comparison and discussion of expected versus actual SCAQMD contract costs.
- j) Copies of news releases, media and technical articles on the project.

- k) Discussion of commercial feasibility of the technology including a (quantitative) cost comparison of the proposed technology with competing technologies. Key cost elements need to be identified.
 - l) Recommendations
4. CONTRACTOR shall submit three stapled originals of the final report as well as an electronic copy in Microsoft Word format of the final report incorporating SCAQMD's comments, 60 days after completion of the demonstration period at the conclusion of the project. This document shall be considered in the public domain, in conformance with the California Public Records Act (Government Code Section 6250 et seq.). Any trade secret information may be submitted to SCAQMD in a separate report in which the trade secret information is specifically identified. SCAQMD agrees to treat trade secret information in accordance with its Public Records Act guidelines relating to trade secret information.
5. Photo Documentation
CONTRACTOR shall provide to the SCAQMD a set of color photographs, documenting the entire development and testing.
6. 2-Page Project Synopsis
CONTRACTOR shall submit a 2-page project synopsis, along with the Final Report. Attachment 3 to this Contract provides the format and content to be used for this synopsis. In addition to a hard copy, CONTRACTOR shall provide the synopsis in an electronic version, using Microsoft WORD. All color photographs and images shall be embedded within the synopsis AND provided separately in digital format, such as .ppt, .tif, or .jpg, on a CD or sent electronically.

PROJECT SCHEDULE

TASK	Month Due (from contract execution)
Task 1 – Basic Infrastructure System Design	4
Task 1.1 - Construction and Demonstration Site Evaluation	-----
Task 1.2 - Basic Design of Traction Power Supply	-----
Task 1.3 - Basic Design Site Offices and Control Center	-----
Task 1.4 - Basic Design of the Temporary Maintenance Facility	-----
Task 1.5 - Design and Construction of the Temporary Test Track	-----
Task 1.6 - Basic design of the OCL	-----
Task 2 – CEQA and Construction Permitting	-----
Task 2.1 - CEQA process	3
Task 2.2 - Construction Permitting Process	4
Task 2.3 - Operational Permitting Process	12
Task 3 – Infrastructure System Detailed Design	-----
Task 3.1 - Detail Design of the Traction Power Supply	5
Task 3.2 - Detail Design OCL	6
Task 3.3 - Complete Description of Test Procedures	6
Task 4 – Procurement and Manufacturing - Infrastructure	-----
Task 4.1 - Power Supply Substation	11
Task 4.2 - OCL Equipment	11
Task 4.3 - Auxiliary Infrastructure to Support Demonstration Tests	6
Task 5 – Installation and Commissioning of Infrastructure	-----
Task 5.1 - OCL	13
Task 5.2 - Power Supply	12
Task 5.3 - Commissioning OCL and TPS	14
Task 5.4 - Auxiliary Infrastructure to Support the Demonstration Tests	8
Task 6 – Pantograph System Definition and Interface Identification	3
Task 6.1 - Interface Clarification and System Definition	-----
Task 6.2 - Technical Support for PAN Integration	-----
Task 7 – Pantograph Engineering Integration and Certification	-----
Task 7.1 - Pantograph Engineering - Volvo Vehicle	8
Task 7.2 - Not Used	-----
Task 7.3 - Pantograph Engineering – TransPower Battery Electric Vehicle	10
Task 7.4 - Pantograph Engineering - TransPower CNG Hybrid Vehicle	13
Task 7.5 - Pantograph Engineering – Third Party Electric or Hybrid Vehicle	T.B.D

Task 8 – Pantograph Production, Assembly And Integration into Volvo Vehicle	9
Task 8.1 - Procurement	-----
Task 8.2 - Manufacturing/Assembly	-----
Task 8.3 - Shipment	-----
Task 8.4 - Installation of the Pantograph in Each Vehicle Type	-----
Task 8 – Pantograph Production, Assembly And Integration into TransPower Battery Vehicle	11
Task 8.1 - Procurement	-----
Task 8.2 - Manufacturing/Assembly	-----
Task 8.3 - Shipment	-----
Task 8.4 - Installation of the Pantograph in Each Vehicle Type	-----
Task 8 – Pantograph Production, Assembly And Integration into TransPower CNG Vehicle	14
Task 8.1 - Procurement	-----
Task 8.2 - Manufacturing/Assembly	-----
Task 8.3 - Shipment	-----
Task 8.4 - Installation of the Pantograph in Each Vehicle Type	-----
Task 8 – Pantograph Production, Assembly And Integration into TBD OEM Vehicle	T.B.D
Task 8.1 - Procurement	-----
Task 8.2 - Manufacturing/Assembly	-----
Task 8.3 - Shipment	-----
Task 8.4 - Installation of the Pantograph in Each Vehicle Type	-----
Task 9 – Catenary Truck and Infrastructure Demonstration	
Task 9.1 - Component integration testing in Germany	13
Task 9.2 - Demonstration Phase Support Months 1-3	16
Task 9.2 - Demonstration Phase Support Months 4-6	19
Task 9.2 - Demonstration Phase Support Months 7-9	22
Task 9.2 - Demonstration Phase Support Months 10-12	25
Task 9.3 - Vehicle and Infrastructure Tests and Data Collection	26
Task 9.4 – Catenary System Safety Analysis	-----
Task 10 – Determine Owner and Operator of System	T.B.D
Task 10.1 - Determine Future Use of Catenary Demonstration System	-----
Task 10.2 - Determine System Owner and Transfer Ownership	-----
Task 10.3 - Notify City of Carson	-----
Task 11 – Project Management and Reporting	Continuous
Task 11.1 – Maintain the Project Master Schedule	-----
Task 11.2 – Reporting: Monthly, Quarterly, Draft & Final Reports, and 2-Page Project Synopsis	-----
Task 12 – System Decommissioning and Site Restoration	26

Exhibit "B"

Payment Schedule

<u>Milestone</u>	<u>Payment</u>	<u>Proposed Completion Date</u>
Upon completion of Tasks 1-4	\$1,000,000	April 1, 2015
Upon Completion of Tasks 5-8	\$1,000,000	November 1, 2015
Upon Completion of Tasks 9-12	\$2,000,000	October 1, 2016