

**REQUEST FOR PROPOSALS (RFP) FOR
Plug-In Electric Vehicle Charging Infrastructure Project**

JULY 19, 2010

**CITY OF CHICAGO
DEPARTMENT OF ENVIRONMENT (DOE)**

**RESPONSES MUST BE RECEIVED NO LATER THAN
Friday, August 19, 2010
At 4:00 P.M. CST**

One (1) digital version should be submitted electronically as shown below:

Subject: Plug-In Electric Vehicle Charging Infrastructure Project

Responses should be emailed to:

Samantha Bingham, Samantha.Bingham@cityofchicago.org

**DOE will host a mandatory Pre-Submittal Conference:
9 AM on
Monday, August 2, 2010
at the
Chicago Center for Green Technology
445 N. Sacramento Avenue
or
Participate Via Conference Call
Dial In: 1-877-604-3186 Passcode: 5495380**

**RICHARD M. DALEY
MAYOR**



**SUZANNE MALEC-MCKENNA
COMMISSIONER**

Table of Contents

1. Purpose of the RFP
 - A. Background
 - B. Anticipated Term of Contract and Funding Source(s)
 - C. Eligible Respondents
2. RFP and Submission Information
 - A. Proposal Deadline & Submittal Procedures
 - B. Contact Person Information
 - C. Pre-Submittal Conference
 - D. Timeline
 - E. Coordination of City of Chicago Departments
3. Scope of Services
 - A. Overview
 - B. DOE's Project Partners
 - C. Project Principles
 - D. Data and Reporting Requirements
 - E. Funding Eligibility Requirements
 - E. Regulatory Considerations
4. Evaluation and Selection Procedures
 - A. Evaluation Process
 - B. Evaluation Criteria
 - C. Selection
5. Legal and Submittal Requirements
 - A. Compliance with Laws, Statutes, Ordinances and Executive Orders
 - B. False Statements
6. Application Materials

Attachments

- I. Example Level 2 Plug-In Electric Vehicle Charging Station Specification
- II. Example DC Quick Charger Specification
- III. Station Specifications to Support Car-Sharing Fleets

1. Purpose of the RFP

A. Background

The City of Chicago and the State of Illinois are mutually dedicated to improving regional air quality, reducing petroleum usage and mitigating greenhouse gas emissions from the transportation sector through the deployment of innovative technologies. Recognizing the critical role of local governments in the development of alternative-fuel infrastructure, the City of Chicago is acting as a catalyst for market transformation, leading by example in its own operations and encouraging the private sector to bring about significant and sustainable use of alternative fuels and advanced vehicle technologies.

Alternative Fuels Address Climate Action Goals

In September 2008, after a thorough analysis of emissions sources in Chicago, the City unveiled the Chicago Climate Action Plan (CCAP) outlining the City's goal to reduce greenhouse gas emissions in Chicago to 25% below 1990 levels by 2020. CCAP functions as a framework for the City's environmental priorities and a call to action on those priorities. Alternative fuels and advanced vehicle technologies are critical elements of CCAP, which calls for a 10% increase in the use of alternative fuels in Chicago by 2020.

Chicago Area Alternative Fuels Deployment Project Helps City Meet CCAP Goals

In an effort to reach CCAP's greenhouse gas reduction goals, improve local and regional air quality, and provide additional access to alternatives fuels in the Chicago area, the Chicago Department of Environment (DOE) developed the Chicago Area Alternative Fuels Deployment Project (the Project). In December of 2009, DOE received almost \$15 million in American Recovery and Reinvestment Act funding in cooperation with the U.S. Department of Energy (USDOE) to carry out the Project. Based on shared objectives and to increase the overall effectiveness of the Project, the State of Illinois' Department of Commerce and Economic Opportunity provided additional grant funding to further support the initial deployment of charging station infrastructure and to set the framework for broader geographic distribution of stations across Chicago, Cook County and its five contiguous counties (the Chicago metro-area).

Project Launches Initial Set of Public Infrastructure in City's Long-term Plan

In order to spur market growth and local adoption of plug-in electric vehicles (PEVs), provide support to early adopters, and establish the Chicago metro-area as an early destination for commercially available PEVs, the Project will deploy publicly accessible electric vehicle charging stations in the Chicago region as an initial phase of the region's long term PEV strategy. The Project will serve as a springboard for further build-out of charging infrastructure thus encouraging PEV uptake and inducing the development of additional services required to support PEVs.

Chicago Spurs PEV Infrastructure Market

This Request for Proposals (RFP) offers winning Respondent(s) the opportunity to be a part of the Chicago region's first phase of planned charging station deployment. The City and its public-sector partners are committed to their role in supporting the initial deployment of charging infrastructure and are applying up to \$2,000,000, a combination of Federal and State resources, to do so. The City has established this funding as an incentive to attract private investment in charging infrastructure and the network that supports it, rather than owning and operating the infrastructure itself. Leveraging of grant funds through partnerships and cost share will maximize the impact of the Project and is highly desired. Neither the City nor the State are offering any City/State-owned land for station locations as part of this RFP, however City, State or other publicly-owned land may be considered for station locations. The expectation is that the first phase of infrastructure development will serve as the foundation for additional phases and new technologies as they become available.

Project Partnerships Will Assist with Ongoing and Diverse Market Uptake

The City recognizes that \$2,000,000 of core funding will not create a full PEV infrastructure. The intent of this funding is to provide an incentive for the first phase of PEV infrastructure deployment, creating partnerships and methodologies that lay the groundwork for subsequent phases to reach significant market penetration. We expect that long term planning and early investment in the market will create additional market-based opportunities for PEV infrastructure and demand. The City is eager to encourage a diverse set of PEV technologies, including Level II and DC quick charge stations, ensuring that the systems put in place through this initial phase of work are dynamic enough to accommodate the next generation of charging technologies. Successful Respondents to this RFP will provide investments including, but not limited to, technology, physical infrastructure, economic development opportunities, and analysis and strategic planning of charging station locations.

Collateral Benefits to Future Deployment

A successful market-based PEV infrastructure system will require a dynamic station-use pricing structure; and reduced fee back-end support; among other market innovations. Respondents that have developed this back-office and network functionality and can demonstrate a robust, scalable business model will lay the groundwork for scaling up deployment beyond this Project's initial phase.

B. Anticipated Term of Contract and Funding Source(s)

Please note that this is not a Request for Information, but an RFP after which an agreement will be awarded to a winning Respondent to be the City's partner in this initial round of PEV charging station deployment. The term of the contract executed under this RFP will be from the time of execution to December 31, 2013. All stations must be installed and operational by December 31, 2011.

In addition, Respondents should be aware that payment for services by the City will be made on a reimbursement basis. **Applicants must be able to proceed with the project upon contract execution.**

C. Eligible Respondents

This is a competitive process open to all entities and partnerships. A single entity must be named as the lead Respondent. Respondents not eligible include those that have had a City contract terminated for default; are currently debarred and/or have been issued a final determination by a City, State or Federal agency for performance of a criminal act, abridgement of human rights or illegal/fraudulent practices.

2. RFP and Submission Information

A. Proposal Deadline and Submittal Procedures

Please submit one (1) digital proposal by 4:00 on Friday, August 19, 2010 to:

Samantha Bingham, Samantha.Bingham@cityofchicago.org
Subject: Plug-In Electric Vehicle Charging Infrastructure Project

Proposals will be accepted prior to the due date. All proposals must be complete. Incomplete proposals will not be reviewed. Email receipts will be issued as proof of timely submittal.

No proposal shall be considered complete and therefore reviewed unless the electronic submission is delivered and received by DOE's representative by the date and time above.

Proposals received after the due date and time shall be deemed NON-RESPONSIVE and, therefore, subject to rejection.

B. Contact Person Information

Respondents must submit all questions and comments related to the RFP via e-mail. Please direct any questions to the following appropriate liaison and write "Chicago Charging Station RFP" in the subject line:

Samantha Bingham, Samantha.Bingham@cityofchicago.org

C. Pre-Submittal Conference

A mandatory Pre-Submittal conference will be held on **Monday, August 2, 2010 at 9 AM at the Chicago Center for Green Technology (445 N. Sacramento Ave.)**

All those interested in attending should contact, Samantha Bingham (samantha.bingham@cityofchicago.org) and write "Chicago Charging Station Pre-Bidders Conference" in the subject line. Please give the names and email addresses of those wishing to attend and the agency name. Please RSVP by **Wednesday, July 28, 2010.**

D. Timeline

This is the anticipated timeline for the Plug-In Electric Vehicle Charging Infrastructure Project RFP process:

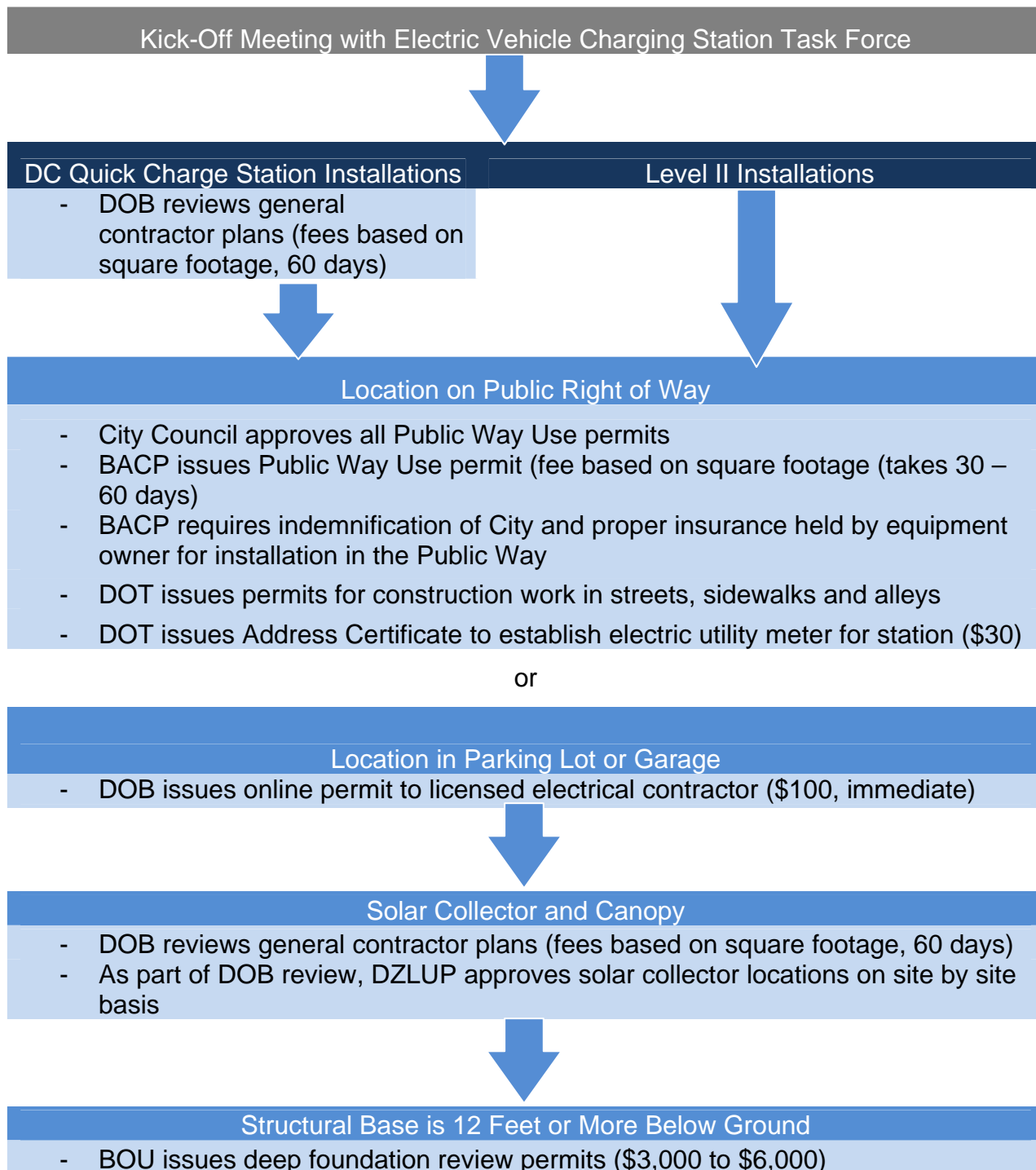
RFP Released (posted on web site), hard copies	July 19, 2010
RFP Bidders Mandatory Conference RSVP	July 28, 2010
RFP Bidders Mandatory Conference	August 2, 2010 (9 AM CST)
RFP Due	August 19, 2010 (4 PM CST)
Award Notifications made	September 1, 2010

E. Coordination of City of Chicago Departments

DOE understands the role that City departments will play in the successful development and deployment of a PEV infrastructure. In order to support the selected partner, DOE has identified key City departments that may play a role in zoning, permitting, and inspections of the infrastructure installations. These key departments are the Bureau of Underground (BOU), the Department of Buildings (DOB), the Department of Business Affairs and Consumer Protection (BACP), the Department of Construction and Permits (DCP), Department of Transportation (DOT), and the Department of Zoning and Land Use Planning (DZLUP). These departments comprise the City's Electric Vehicle Charging Station Task Force.

Once a Respondent is selected as a partner for the Project, the partner will meet with the City's Electric Vehicle Charging Station Task Force. This coordination between departments and the partner will enable increased project efficiency.

The following flowchart illustrates the current approval process for installing charging stations in the City of Chicago.



Corresponding approval processes exist for the installation of charging stations on State of Illinois property and in other municipalities across the Chicago metro area. The detailed requirements of these approval processes will be identified on an as-needed basis according to the selection of charging station locations.

3. Scope of Services

A. Overview

DOE is requesting that qualified teams submit proposals to compete for up to \$2,000,000 in funding for the network development and deployment of the maximum number of Level II *and* DC Quick Charge stations possible with a minimum of one solar powered station for Chicago and the surrounding region. The expectation is that the charging stations will be distributed to maximize overall uptake and viability of PEVs in the city and surrounding areas

DOE envisions this initial-scale system and network as a pilot whose purpose is in part to educate each of the key stakeholder groups – the City and State, ComEd (the local electric utility), current and prospective PEV drivers, station hosts, car sharing companies, and station providers -- about how the system will work, how PEV drivers will interact with it, and how this education informs a sustainable business model for future scale up. This project and its outcomes will play a significant role in shaping the region's long-term vision for PEV market development and driving the availability of future resources. In addition, this infrastructure will support the initial fleet of PEVs as they become available to the general public.

DOE is looking for a turn-key program. The Respondent will understand and provide the equipment and also demonstrate the vision for a full scale PEV infrastructure in Chicago, the landowner relationships and the plan for deployment and marketing. DOE sees this initial deployment of stations as an opportunity to act as a catalyst for further market and government investment in charging infrastructure and PEVs. The Respondent will be responsible for:

- **developing (with the DOE team) the strategy for locating charging infrastructure locations to maximize utilization;**
- **working with the Respondent's project partners and DOE's (car-sharing entities and the State of Illinois) to meet their infrastructure needs;**
- **purchasing, installing and manufacturing charging stations and associated infrastructure supporting this project;**
- **providing sufficient incentives to consumers to support daily use of PEVs;**
- **developing and implementing the business model, including the back-end functionality; and**
- **providing warranty and service for the charging stations and infrastructure for the duration of their useful life.**

DOE encourages the integration of renewable energy systems to support this infrastructure and several of the stations could include solar power technology, however this RFP requires at least one. Note that there are solar canopies being deployed by the City's project partner I-GO that will be integrated with several of the stations deployed through this project. These solar canopies are not included in this RFP.

To enable reduction of the vehicle's electrical demand on the grid during peak demand times and enable maximum use of renewable energy sources, base load energy sources, or renewable energy available off peak that would otherwise be curtailed, the stations should be intelligently integrated with the electrical grid. This integration will allow for control of the electric vehicles' demand for electricity from the grid.

DOE is open to a range of charging technologies, provided that the stations can be used immediately, have flexibility to integrate with future technology in the near- to mid-term, and comply with all applicable safety standards and regulations. The City intends to deploy an increment of DC quick charging stations as part of this project, but reserves the right to proceed only with level 2 charging stations, or with a mix of level 2 charging stations and charging stations based on a protocol other than DC quick charging. However, DOE would prefer a mix of Level II and quick charge technologies in a winning proposal. Example specifications for Level II and DC Quick Charging stations are found in Attachments I and II, respectively, but Respondents are required to submit their own station specifications that reflect the requirements and principles of this RFP.

The stations must be operated and accessible for a minimum of three years (with a plan for long-term operation), with an equivalent full warranty for at least that period and with the necessary support infrastructure in place. Respondents should address how they plan to meet this requirement in their application. Successful Respondents will describe their underlying revenue model and vision for marketability, including how customers are charged, if membership is required, and other relevant considerations.

Successful Respondents will include a business plan for long-term market-based success. This includes the development of a back-end operating system and customer support mechanisms, as well as pricing and relationship strategies with key stakeholders (including the electric utility company).

DOE encourages pre-submission site development activities. For station locations not identified by time of application, Respondents must identify the methodology and approach to be used to select sites. Given the State and Federal resources the City is applying to this project, DOE encourages Respondents to detail resources they will co-invest alongside government resources to ensure a robust, successful first phase roll out and long-term market penetration. The City and State encourage investment in local manufacturing and assembly of charging stations and their components and supporting infrastructure, in addition to co-investment in the stations and infrastructure themselves. This could include, but is not limited to, the development of a network operating center and/or a manufacturing facility based in Chicago.

Commitment letters from each of the project partners indicating their amount of financial or other support to the project, including a written commitment to keep the stations operational for a minimum of three years, must be submitted at time of application.

The City will play an integral role in this project from start to finish. The data generated by this project for the duration of the grant agreement with the City will be owned by the City

and not the Respondent, and thus may be made publicly available. The experience compiled through this project will determine the process and approach for the following phases of infrastructure development.

A critical component of all submitted proposals is a focused discussion of the potential to create jobs for the region, both directly through construction and maintenance as well as indirectly through call centers, back office operations, and manufacturing/assembly plants located in Chicago and the Chicago region.

B. DOE's Project Partners

As part of this RFP, the successful Respondent will provide a specific number of charging stations for the sole use of I-GO and Zipcar, DOE's project partners on the Chicago Area Alternative Fuels Deployment Project. Locally, these two car-sharing services have over 600 vehicles in their fleets combined with dedicated parking locations throughout Chicago and suburban locations. As part of this award, the successful Respondent will work with I-GO and Zipcar to locate stations for their use that meet their organizations' needs. Additional information can be found in Attachment III, Station Specifications for Car-Sharing Fleets.

Thirty-six (36) charging stations will be dedicated to serving I-GO's fleet. Eighteen (18) of the charging stations deployed through this project will be installed at locations directed by the City and I-GO. Twenty-five (25) charging stations will be dedicated to serving Zipcar's fleet.

C. Project Principles

Funding will be provided to support an innovative project that will develop and strengthen the Chicago area's electric vehicle charging capability and stimulate market demand for electric vehicles. An example of an innovative project includes the deployment of the maximum number of Level II and DC Quick Charging stations, some of which may be integrated with solar canopies [one (1) required] that will support early adopters and have regional diversity, education and outreach components, a local back office support center, multiple partners, and additional investments in the project (cost share). The following major principles should guide project proposals. Respondents that describe how they will fulfill these goals will be given favorable consideration in the evaluation process.

Desired Project Elements:

- Demonstrate a creative and practical long-term plan for PEV infrastructure deployment and market uptake;
- bring additional funding, charging stations, and/or cost efficiencies to the project;
- ensure that this initial deployment will result in a long-term strategy for the deployment of PEVs in the region;

- deploy charging station technologies for both near-term utilization and the capability to upgrade as technologies advance;
 - locate stations at appropriate sites that provide optimal charging opportunities for early electric vehicle drivers, including O'Hare and Midway airports as well as assets such as Illinois Tollway Authority Oases and similar assets in locations visible and accessible to commuters; and
 - creating a dynamic pricing structure for use of the charging stations and reduced fee back-end support.
-

Respondent will acknowledge and call out and enhance the collateral benefits supporting this initial deployment, including (but not limited to):

- establishing a Network Operating Center for the region/nation in Chicago;
- establishing a manufacturing or assembly plant in Chicago region/Chicago;
- establishing a regional headquarters in Chicago; and
- other market innovations that demonstrate a successful business model.

Charging Station Requirements:

- Maximize the number and diversity of stations deployed, including Level II and DC Quick Charge stations, including at least one solar canopy powered stations deployed in this initial phase;
- **dedicate 61** charging stations for two (2) local car-sharing entities' use to meet their specific needs, (more information can be found in Attachment III. Station Specifications to Support Car-Sharing Fleets), including 36 to connect to solar canopies installed through I-GO's project; provide the remaining stations not dedicated to car-sharing fleets for general public use;
- install charging equipment compliant with SAE, IEEE, and NEC codes and standards (see Attachment I and II for guiding station specifications);
- design, install and maintain charging equipment as required by the existing recognized codes and standards and approved by local/state Authorities Having Jurisdiction (AHJs); and
- intelligently integrate charging stations with the electrical grid.

Training and Marketing Strategy:

- Provide training and education necessary to ensure that vehicles and charging equipment are installed, maintained, and operated in a safe and proper manner;
- develop a marketing, branding and outreach strategy; and

- create public awareness to educate the community about the project and its accompanying benefits.

D. Data and Reporting Requirements

Data about PEV usage will educate the City and stakeholders about PEV driver habits and will provide information to inform the deployment of future PEV infrastructure.

Successful Respondents will include a strategy to provide data to the City (and/or their delegate as directed by the City). Confidentiality and personal data protection should also be included in the strategy. The following list includes, but is not limited to, information to be reported to the City:

- Location;
- Vehicle Identity;
- Time stamp (start and stop);
- Energy and demand; and
- Number of vehicles serviced.

Successful Respondents will provide programmatic and financial information in a format specified by DOE no less frequently than quarterly to meet the obligations of the Federal and State funding sources.

E. FUNDING ELIGIBILITY REQUIREMENTS

- Funding can be utilized for project management, equipment, design and permitting, site improvements, operations and maintenance costs. Funding from this grant source cannot be used for the purchase of electricity.
- Installation of stations is expected to start in 2010, and all stations are expected to be installed and operational by the end of 2011. After deployment, data gathering and reporting to the City will continue until December 31, 2013.
- Stations may be deployed within the Chicago metro area.
- Stations must remain operational for a minimum of 3 years after installation.

F. REGULATORY CONSIDERATIONS

PEVs and charging infrastructure are a deviation from the current liquid petroleum based transportation model and may encounter barriers to market adoption, including regulatory challenges. Any stations and associated infrastructure developed by the successful Respondent will comply with the appropriate state and local government laws, rules, regulations, etc. The Respondent (potentially through the Respondent's landowner partners) will also be responsible for applying for and obtaining applicable certifications,

licenses, and permits necessary for the installation and operation of the stations and associated infrastructure.

The Illinois Public Utilities Act (the “Act”) generally provides that any entity that sells electric power and energy to retail customers is either a public/electric utility or an alternative retail electric supplier (“ARES”) (220 ILCS 5/3-105 and 5/16-102). These provisions in the Act may apply to owners/operators/providers of electric vehicle charging stations and may require further investigation or clarification with the Illinois Commerce Commission. Moreover, the project raises a number of issues related to rights and obligations of utilities and other participants. By participating in this project, no participant waives its right to assert any right or make any argument outside the context of this project and each participant affirmatively agrees that it will not argue any waiver has occurred by virtue of participation in this project.

The City and its public-sector partners are committed to their role in supporting the initial deployment of charging infrastructure and will work with the winning Respondent to resolve any regulatory hurdles that may arise.

4. Evaluation and Selection Procedures

A. Evaluation Process

A committee selected by DOE will evaluate and rate all proposals based upon the criteria outlined below. The committee may also request interviews with Respondents. However, DOE reserves the right to award contracts on the basis of initial proposals received without further discussions. Failure to submit a complete proposal and/or to respond fully to all requirements may cause the proposal to be deemed unresponsive and, therefore, subject to rejection.

B. Evaluation Criteria

The proposals will be evaluated on the Respondent’s ability to provide service as defined in this RFP, “Scope of Services” and on the submission and completion of all requested documentation as defined. DOE will be guided by the following considerations in evaluating proposals:

Probability of Project Success:

- Proposal meets or is consistent with the Scope of Services described in Section 3 and conforms to the specified requirements set forth in this RFP
- Likelihood of successfully completing the proposed project based on the adequacy and thoroughness of the approach including the technical feasibility, location and number and type of the proposed charging station installations;

- Alignment with project partners (host sites);
- Adequacy and reasonableness of the methodology and approach for selecting sites that have not yet been identified;
- The Respondent has appropriate staffing levels for project scope and size and demonstrated fiscal capacity to operate and manage the proposed program;
- Project's schedule addressing timely execution of build out;
- Respondent has no past, current or anticipated legal judgments resulting from any contract matters.

Company Strategy:

- Sound strategy and qualifications in the development of an electric vehicle charging infrastructure market;
- Documented five-year strategy to grow the Chicago area market for PEVs;
- Partnership with vehicle original equipment manufacturer(s) (OEMs);
- Previous and ongoing experience in deploying PEV infrastructure projects;
- Indication of an end-to-end solution for deploying stations, maintenance training, and marketing; and
- Written commitment to operate and grow in Chicago.

Station Technology:

- Minimum Level 2 (see specifications in Attachment I);
- Potential to upgrade as technology advances;
- Meets all appropriate safety requirements;
- Includes warranty;
- Demonstrates compliance with Americans with Disabilities Act (ADA); and
- Secure equipment and vehicle while charging

Project Cost and Cost-Share:

- Additional funding and investment brought to the proposed project by the Respondent and/or project partners (cost share);
- Cost effectiveness of the project in terms of total number of charging stations to be provided as part of the project.

Economic and Environmental Benefits:

- Equipment the majority of which is manufactured in the US, including final assembly;
- US operating company;
- Local technical and customer service support;
- Benefits the Respondent will bring to the City, including job creation;

- Recognition of the need to increase renewable energy uptake and lower environmental impacts;
- Degree to which the proposal furthers Chicago's greenhouse gas reduction goals and reduces the project's and the City's carbon footprint.

C. Selection

Selections will not be final until the City and Respondent have fully negotiated and executed a contract. The City assumes no liability for costs incurred in responding to this RFP or for costs incurred by the Respondent in anticipation of a fully executed contract.

5. Legal and Submittal Requirements

A. Compliance with Laws, Statutes, Ordinances and Executive Orders

Grant awards will not be final until the City and the Respondent have fully negotiated and executed a grant agreement. All payments under grant agreements are subject to annual appropriation and availability of funds.

The City assumes no liability for costs incurred in responding to this RFP or for costs incurred by the Respondent in anticipation of a grant agreement. As a condition of a grant award, Respondents must comply with the following and with each provision of the grant agreement:

1. Conflict of Interest Clause: No member of the governing body of the City of Chicago or other unit of government and no other officer, employee, or agent of the City of Chicago or other government unit who exercises any functions or responsibilities in connection with the carrying out of the project shall have any personal interest, direct or indirect, in the grant agreement.

The Respondent covenants that he/she presently has no interest, and shall not acquire any interest, direct, or indirect, in the project to which the grant agreement pertains which would conflict in any manner or degree with the performance of his/her work hereunder. The Respondent further covenants that in the performance of the grant agreement no person having any such interest shall be employed.

2. Governmental Ethics Ordinance, Chapter 2-156: All Respondents agree to comply with the Governmental Ethics Ordinance, Chapter 2-156 which includes the following provisions: a) a representation by the Respondent that he/she has not procured the grant agreement in violation of this order; and b) a provision that any grant agreement

which the Respondent has negotiated, entered into, or performed in violation of any of the provisions of this Ordinance shall be void-able by the City.

3. Selected Respondents shall establish procedures and policies to promote a Drug-free Workplace. The selected Respondent shall notify employees of its policy for maintaining a drug-free workplace, and the penalties that may be imposed for drug abuse violations occurring in the workplace. The selected Respondent shall notify the City if any of its employees are convicted of a criminal offense in the workplace no later than ten days after such conviction.

4. Business Relationships with Elected Officials - Pursuant to Section 2-156-030(b) of the Municipal code of the City of Chicago, it is illegal for any elected official of the City, or any person acting at the direction of such official, to contact, either orally or in writing, any other City official or employee with respect to any matter involving any person with whom the elected official has a business relationship, or to participate in any discussion in any City Council committee hearing or in any City Council meeting or to vote on any matter involving the person with whom an elected official has a business relationship. **Violation of Section 2-156-030(b) by any elected official with respect to the grant agreement shall be grounds for termination of the grant agreement.** The term business relationship is defined as set forth in Section 2-156-080 of the Municipal Code of Chicago.

Section 2-156-080 defines a "business relationship" as any contractual or other private business dealing of an official, or his or her spouse or domestic partner, or of any entity in which an official or his or her spouse or domestic partner has a financial interest, with a person or entity which entitles an official to compensation or payment in the amount of \$2,500 or more in a calendar year; provided, however, a financial interest shall not include: (i) any ownership through purchase at fair market value or inheritance of less than one percent of the share of a corporation, or any corporate subsidiary, parent or affiliate thereof, regardless of the value of or dividends on such shares, if such shares are registered on a securities exchange pursuant to the Securities Exchange Act of 1934, as amended; (ii) the authorized compensation paid to an official or employee for his office or employment; (iii) any economic benefit provided equally to all residents of the City; (iv) a time or demand deposit in a financial institution; or (v) an endowment or insurance policy or annuity contract purchased from an insurance company. A "contractual or other private business dealing" shall not include any employment relationship of an official's spouse or domestic partner with an entity when such spouse or domestic partner

has no discretion concerning or input relating to the relationship between that entity and the City.

5. Compliance with Federal, State of Illinois and City of Chicago regulations, ordinances, policies, procedures, rules, executive orders and requirements, including Disclosure of Ownership Interests Ordinance (Chapter 2-154 of the Municipal Code of Chicago); the State of Illinois - Certification Affidavit Statute (Illinois Criminal Code); State Tax Delinquencies (65ILCS 5/11-42.1-1); Governmental Ethics Ordinance (Chapter 2-156 of the Municipal Code of Chicago); Office of the Inspector General Ordinance (Chapter 2-56 of the Municipal Code of Chicago); Child Support Arrearage Ordinance (Section 2-92-380 of the Municipal Code of Chicago); and Landscape Ordinance (Chapters 32 and 194A of the Chicago Municipal Code).
6. If selected for grant award, Respondents are required to (a) execute and notarize the Economic Disclosure Statement and Affidavit, and (b) indemnify the City as described in the grant agreement between the City and the successful Respondents.
7. Pursuant to Mayoral Executive Order No. 05-1, from the date of public advertisement of this request for proposals through the date of award of an agreement pursuant to this request for proposals, the organization responding to this request for proposals (the "Respondent"), any person or entity who directly or indirectly has an ownership or beneficial interest in Respondent of more than 7.5 percent ("Owners"), spouses and domestic partners of such Owners, Respondent's proposed subcontractors, any person or entity who directly or indirectly has an ownership or beneficial interest in any subcontractor of more than 7.5 percent ("Sub-owners") and spouses and domestic partners of such Sub-owners (Respondent and all the other preceding classes of persons and entities are together, the "Identified Parties") must not: (a) make a contribution of any amount to the Mayor of the City of Chicago (the "Mayor") or to his political fund-raising committee; (b) coerce, compel or intimidate its employees to make a contribution of any amount to the Mayor or to the Mayor's political fund-raising committee; (c) reimburse its employees for a contribution of any amount made to the Mayor or to the Mayor's political fund-raising committee; or (d) bundle or solicit others to bundle contributions to the Mayor or to his political fund-raising committee.

If Respondent violates this provision or Mayoral Executive Order No. 05-1 prior to the award of an agreement resulting from this request for qualifications/proposals/ information, the Commissioner may reject Respondent's proposal.

For purposes of this provision:

"Bundle" means to collect contributions from more than one source which are then delivered by one person to the Mayor or to his political fund-raising committee.

"Contribution" means a "political contribution" as defined in Chapter 2-156 of the Municipal Code of Chicago, as amended.

For purposes of this provision only, individuals are "'Domestic Partners'" if they satisfy the following criteria: (A) they are each other's sole domestic partner, responsible for each other's common welfare; and (B) neither party is married, as marriage is defined under Illinois law; and (C) the partners are not related by blood closer than would bar marriage in the State of Illinois; and (D) each partner is at least 18 years of age, and the partners are the same sex, and the partners reside at the same residence; and (E) two of the following four conditions exist for the partners: (1) the partners have been residing together for at least 12 months; (2) the partners have common or joint ownership of a residence; (3) the partners have at least two of the following arrangements: (a) joint ownership of a motor vehicle, (b). a joint credit account, (c) a joint checking account, or (d) a lease for a residence identifying both domestic partners as tenants; and (4) each partner identifies the other partner as a primary beneficiary in a will.

"Political fund-raising committee" means a "political fund-raising committee" as defined in Chapter 2-156 of the Municipal code of Chicago, as amended.

Any agreement awarded pursuant to this solicitation will be subject to and contain provisions requiring continued compliance with Executive Order 2005-01.

B. False Statements

1. 1-21-010 False Statements

Any person who knowingly makes a false statement of material fact to the City in violation of any statute, ordinance or regulation, or who knowingly falsifies any statement of material fact made in connection with a proposal, report, affidavit, oath, or attestation, including a statement of material fact made in connection with a bid, proposal, contract or economic disclosure statement or affidavit, is liable to the City for civil penalty of not less than \$500.00 and not more than \$1,000.00 plus up to three times the amount of damages which the City sustains because of the person's violation of this section. A

person who violates this section shall also be liable for the City's litigation and collection costs and attorney's fees.

The penalties imposed by the section shall be in addition to any other penalty provided for in the municipal code. (Added Coun. J. 12-15-04, p.39951, & 1)

2. 1 -21-020 Aiding and Abetting.

Any person who aids, abets, incites, compels or coerces the doing of an act prohibited by this chapter shall be liable to the City for the same penalties for the violation. (Added Coined. J. 12-15-04, p.39951, & 1)

3. 1-21-030 Enforcement.

In addition to any other means authorized by law, the corporation counsel may enforce this chapter by instituting an action with the department of administrative hearings. (Added Coined. J. 12-15-04, p.39951, & 1)

6. Application Materials

Formatting

Submitted proposals must adhere to all of the following requirements:

- One (1) original and one (1) digital version will be submitted for each proposal
- Proposal containing original signatures in blue ink signed by an authorized representative
- 8 1/2 x 11 letter size
- Double-sided printing
- One inch margins
- Double-spaced
- 12-point font

Proposals must contain the following information:

1. **Cover Letter:** An authorized representative of the Respondent, preferably the Executive Director, must sign a cover letter. The cover letter must contain a commitment to provide services in accordance with all terms and conditions of the RFP. In addition, the cover letter must contain an overview of the experience and background of the Respondent, or Respondents if this is to be a partnership. If a partnership, the fiscal agent must be identified and each of the collaborating partners' principal place of business and the name and telephone number of the principal contact person. **The Cover Letter should not exceed 1 page.**
2. **Executive Summary:** The Executive Summary must provide an overview of the proposal. **The Executive Summary should not exceed 1 page.**
3. **Narrative:** In this section the Respondent must provide the following information:
 1. A narrative describing the project, keeping in mind the project principles.
 2. Jobs created/retained or any other public benefit derived from the project.
 3. Name of representative authorized to act on the Respondent's behalf.
 4. A statement of commitment to adhere to the provisions of all applicable federal, state, local laws, ordinances and regulations prohibiting discrimination or segregation by reason of race, religion, color, gender, physical or mental handicap or disability, national origin or ancestry, sexual orientation, military status, parental status, or source of income, including, such laws, ordinances, and regulations with regard to the sale lease or occupancy of the parcels.
 5. A project schedule including key activities such as:
 - Station locations identified
 - Arrangements with site hosts established
 - Permitting, licensing, and certifications complete
 - Station equipment procured
 - Station equipment delivered to site
 - Infrastructure development complete
 - Training/education complete
 - Stations operational
 - Scheduled station maintenance
 - Marketing/outreach activities
 - Data collection and submission
 - Quarterly reporting
 - Project close out report

4. **Budget:** Please submit one project budget. **Respondents must have sufficient cash flow to execute project as payment from the City will be made on a reimbursement basis.**

5. **Illustrations and Maps:** A list and map of proposed station locations must be submitted. Maps should indicate:

- Station charging technology
- Proposed location of stations and entity hosting the station;
- Proposed location of stations with integrated renewable energy systems; and
- Other information necessary to readily illustrate the proposal.

An endnote section to this section should also define the methodology for station location selection. Illustrations or pictures of station equipment and components, including for the solar canopy, must be submitted.

6. **Respondent's Statement of Qualifications and Financial Responsibility:** Submit, preferably, at least three (3) references from previous or current projects and describe qualifications and ability to perform the project. Identify principal members of the Respondent's team, including partners, and indicate their past experience in design and implementation of similar projects. Also include any examples of charging infrastructure in operation on a city-wide level. **This section should not exceed 4 pages.**

7. **Attachments:**

- Commitment letters from identified project partners indicating their amount of financial or other support to the project, including a statement that they intend to keep the stations operational for a minimum of three years.
- Current Certificate of Insurance
- Most recent audit report or a pre-approved equivalent
- Respondents may submit any letters of support
- Charging station specifications

Attachment I. Example Level 2 Plug-In Electric Vehicle Charging Station Specification

The Base Specifications are the Following:

Input Voltage:	208VAC to 240VAC
Input Phase:	Single
Input Current:	30/32 Amps (Maximum Input Current)
Output Voltage:	208VAC to 240VAC
Output Phase:	Single
Pilot:	SAE J1772 Compliant
Connector/Cable:	SAE J1772 Compliant and U.L. Approved Rate at 32Amps Minimum, Length – 20ft
Operating Temperatures:	-40° F (-40° C) to +122° F (+50° C)

Base Features:

- Charge Circuit Interruption Device (CCID)
- Ground Monitoring Circuit
- Charging Indication
- Nuisance tripping avoidance and auto re-closure
- Status Indication
 - Ready to Charge
 - Charging
 - Complete
 - Paused- Waiting to Charge
 - Fault
- Cold Load Pickup (Randomized auto re-start following power outage)
- CCID Auto Test
- Scheduled Charging (Allows customer to program for utility off-peak start times)
- Enclosure Rating – Outdoor
- Wireless 802.11
- ZigBee Capable
- IP Addressable
- Energy and Demand Metering (Meets *ANSI C12.20*)
- Communication Capable

Standards

The unit shall be certified by a Nationally Recognized Testing Laboratory (NRTL) and meet the following standards:

- a. SAE Standard J1772

- b. UL Standard for Electric Vehicle Charging System Equipment; UL2202
- c. UL Standard for Plugs, Receptacles and Couplers for Electric Vehicles; UL2251
- d. UL Standard for Personnel Protection Systems for Electric Vehicle (EV) Supply Circuits; UL2231 (Parts 1 and 2)
- e. UL Standard for Enclosures for Electrical Equipment; UL50

Attachment II. Example DC Quick Charger Specification

DC QUICK CHARGER SPECIFICATION
FOR NEXT GENERATION ELECTRIC VEHICLE

Proposed by
Tokyo Electric Power Company
_____ 2010

1 INTRODUCTION

This specification outlines the requirements for a DC quick charger for the purpose of charging on-board traction battery on the electric vehicle (EV). In addition to providing electric power to the traction battery, this specification makes reference to the interfacing connectors and communication between charger and EV.

2 GENERAL

The primary requirement of the charger is to charge on-board battery on the following conditions.

Charging from 0% to 80% of State-of-charge (SOC) within 30 minutes
or
40km driving range for 5-minute charge and 60 km for 10-minute charge

The scope of supply shall include the following:

- A charging station suitable for outdoor installation
- A DC cable for the connection of the charger and EV (This shall be permanently connected to the charger.
- A connector for the connection of the charger and EV

The charger, DC cable and EV connector shall comply with IEC 61851-1 requirements for electric vehicle conductive charging systems [1]. The application of the charging system shall satisfy “Mode 4” and “Case C” charging configuration and type as defined in the standard IEC 61851-1. In general this is DC quick charging up to 125A from an off board charger with a vehicle cable/connector permanently attached to the charger.

3 CHARGER INPUT REQUIREMENTS

3.1 *General input requirements*

At the point of connection to the supply network the charger shall operate at a power factor over 0.95. Incorporating power factor correction in the charge circuitry to achieve these levels it is expected that a charging efficiency of 90% shall be achieved at the rated operating point.

An RCD shall be supplied on the input circuit. And, if needed, the charger shall include addition protection by fuses.

3.2 AC Voltage (Input)

The charger shall connect to a three-phase 50Hz AC supply at a voltage of 400V (phase-to-phase). Acceptable fluctuation ranges for AC frequency and voltage are the following.

Frequency range: 50Hz +/- 5%
Voltage range: 400Vac +/- 10%

3.3 Power Rating (Input)

The rating of the charger shall be clearly indicated on the casing and shall not exceed a rating of 55 kVA. This rating is a network restriction only, it is envisaged the rating the equipment will be much lower than this in line with the output rating.

4 CHARGER OUTPUT REQUIREMENTS

4.1 General output requirements

Output circuit of the charger shall be designed as isolated (floating) system in order to avoid an electric shock due to single failure on this circuit.

A ground fault detector for DC output circuit shall be equipped. This detector is used for monitoring the isolating conditions between the charging cable and the ground, and between the vehicle's DC circuit and vehicle chassis.

4.2 DC Parameters

The charger shall be capable of supplying a DC to the output terminals which interface to the electric vehicle. DC parameters at outlined below:

Output DC voltage range: 50 to 500 Vdc
Output DC current range: 0 to 125 Adc
Maximum output power: 50kW

The charge current shall be controlled by the vehicle's onboard battery management unit (BMU) which ensures that the maximum charge rate of the vehicle battery is not exceeded. The charger therefore shall have the capability to interface to the BMU via the communications interface while also ensuring that the rating of the charger equipment is not exceeded.

5 OPERATOR PROTECTION

To provide protection from arcing during charging, the charging connector shall have locking mechanisms. These mechanisms shall have the following functions at least.

- To prevent the connector from uncoupling without detaching operation.
- To prohibit the operator from extracting the DC cable from the vehicle while charging is in progress.

The charger shall check that the second function mentioned above works properly during charging.

The charger shall have an internal cooling system located in the chassis for dissipation of heat from the power electronic circuits which shall be exhausted to the atmosphere. In addition the charger chassis shall have the following IP degree; more than IP33.

5.1 Communication Protocol

The charger shall have a serial communications interface to the vehicle. The communication protocol to be adopted by the charger shall be indicated by the supplier and approved by CHAdeMO Association for interface to the vehicle.

The communication network for quick charging will be a separate network within the battery system so that communication data is not transmitted over the vehicle wide network while the vehicle is turned off.

A protocol to be considered in CAN 2.0B, 500kbps, standard (11 bit) identifiers. Communication data shall be transmitted from both side every 100msec during charging.

5.2 Functionality

The charger control system shall provide the following functionality:

- Verification that the connector locking mechanism to prevent extraction from vehicle works properly while charging is in progress.
- Checking of the charging cable soundness against ground fault and isolated condition between DC circuit and the vehicle chassis with its ground fault detector
- System energisation
- System de-energisation

A user display, providing details of charge levels, output conditions, charging time etc. to assist the user in checking charging process may be considered.

The charge current and limits should be controlled by the battery management system in the battery pack.

5.3 Target Battery Technology

The charger shall be capable of safely charging on-board traction battery and therefore shall have the ability to supply constant current (and constant voltage though it is expected that the onboard BMU will control this function via the current control). These modes of operation shall be controlled by BMU of the electric vehicle and therefore the appropriate control signals from the vehicle shall be integrated into interface and control unit within the charger. A typical charge profile is shown in figure 1.

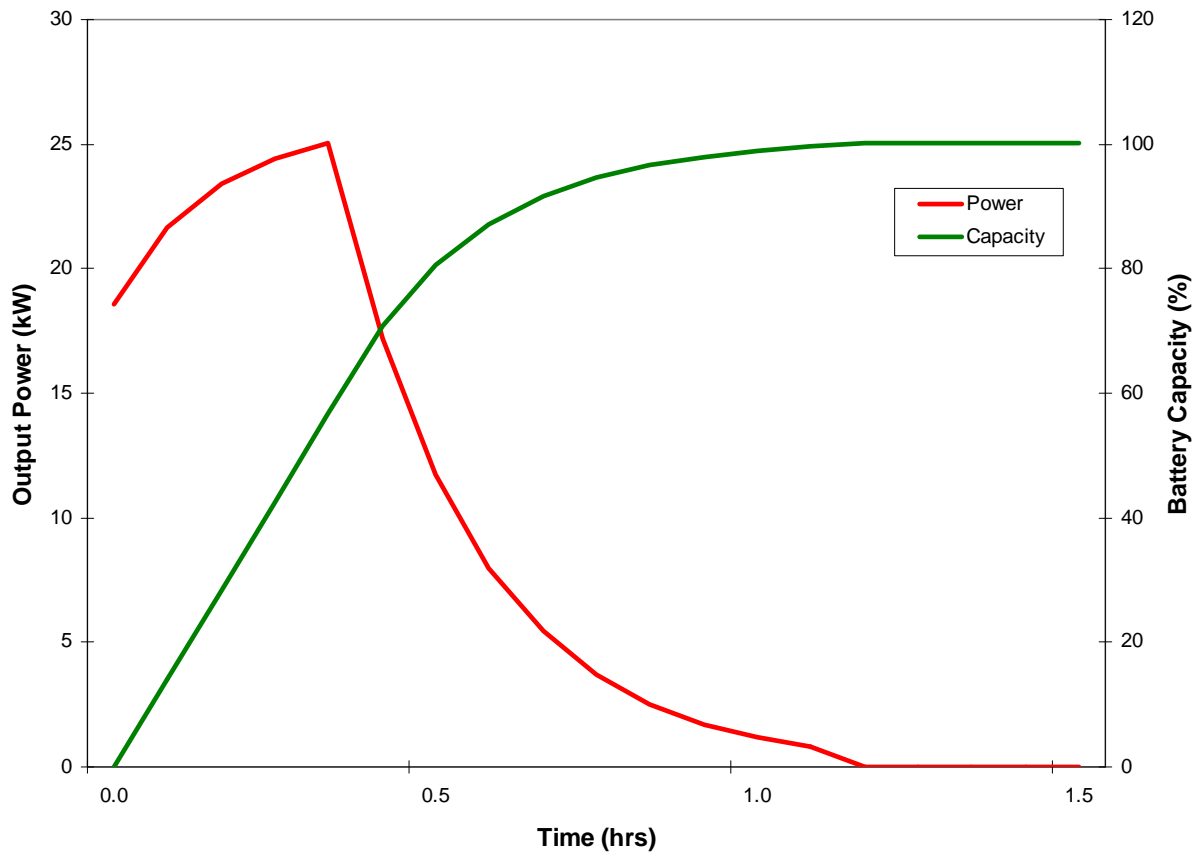


Figure 1: Indicative Lithium Ion charge profile

6 Connectors AND Cable

The connector and cable shall be permanently connected to the charger as indicated in “Case C” of the standard IEC61851-1.

The connector shall withstand ambient temperatures in the range of -10 °C to +40 °C during normal operation.

A universal connector shall be used consisting of power, control pilot and data connections. A pin layout detailed in CHAdeMO specification and available from the manufacturer “Yazaki” is the preferred connector; however any other connector proposed by the charger supplier will be considered.

REFERENCES

- [1] IEC 61851-1: Electric vehicle conductive charging system. Part 1: General Requirements
- [2] CHAdeMO specification: Technical Specifications of Quick Charger for the Electric Vehicle

Attachment III. Station Specifications to Support Car-Sharing Fleets

I-Go Station Specifications

- Charging stations to be installed at locations determined by I-GO
- Installation will need to be coordinated with I-GO and property owners; including abiding by any rules and requirements of property owners
- Installation will need to be coordinated with solar canopy construction.
- Minimum level 2 charging, level 3 if possible.
- Three stations to be installed by October 2010, remainder by Spring 2011.
- Installation shall include necessary electrical infrastructure to connect with both the grid and the solar canopies.
- Data from the stations must be integrated into I-GO's database and the backend data system shall segregate information regarding I-GO stations and vehicles.
- Repair and/or replacement of broken units shall occur same day.

The winning Respondent will work with DOE's project partner I-GO on station locations to best service their fleet. Thirty-six (36) charging stations will be dedicated to serving I-GO's fleet. Eighteen (18) of the charging stations deployed through this project will be installed at locations directed by the City and I-GO. These eighteen (18) public stations will be integrated with solar-generation projects facilitated and lead by I-GO.

I-GO would like to have exclusive use of the thirty-six (36) charging stations dedicated to their fleet for 10 years without paying any ongoing costs or fees.

Zipcar Station Specifications

- Charging stations to be installed at locations determined by Zipcar
- Installation will need to be coordinated with Zipcar and property owners; including abiding by any rules and requirements of property owners
- Minimum level 2 charging, level 3 if possible.
- Data from the stations must be integrated into Zipcar's database and the backend data system shall segregate information regarding Zipcar stations and vehicles.
- Repair and/or replacement of broken units shall occur same day.

The winning Respondent will work with DOE's project partner ZipCar on station locations to best service their fleet. Twenty-five (25) charging stations will be dedicated to serving Zipcar's fleet.