

Solicitation:

Request for Proposals DC-Fast and Level 2 EV Charging for Public Charging

**Released:** 

10/28/2022

www.osawatomieks.org

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# I. Introduction / Background

# City of Osawatomie

As a small community of 4,388, Osawatomie residents enjoy many benefits of a more relaxed pace of life, as well as the advantages of our larger surrounding neighbors. Located in Eastern Kansas, we are the second largest community in Miami County.

The City of Osawatomie is requesting the submission of proposals from qualified firms to provide level 2 EV charging stations. Your proposal should include all hardware, software and services for system design, integration and testing, training, warranty and maintenance, documentation and all associated equipment required to provide a fully functional level 2 EV charging station as described in this Request for Proposal. All proposals shall also include expected delivery dates if ordered in December of 2022.

This Request for Proposal does not commit The City of Osawatomie to pay for any costs incurred in the preparation or submission of any proposal or to contract for any services. The City will, at its discretion, award a contract to the responsible Bidder and Vendor submitting the lowest and best proposal that complies with the requirements stated in this Request for Proposal. The lowest priced proposal may not necessarily be the one selected. The City of Osawatomie may, at its sole discretion, reject any or all proposals received or waive minor defects, irregularities, or informalities.

### 1) RFP Timeline

 RFP release date:
 10/28/2022

 Q&A period ends:
 11/21/2000

 Proposals due:
 12/02/2022 2:00pm

 Final vendor selected
 12/08/2022 (Subject to change)

### 2) Questions

#### Terry Upshaw

#### tupshaw@osawatomieks.org

All questions shall be submitted by email and will be shared with all interested parties. Responses to any questions will be also be sent to all interested parties.

#### 3) RFP Conditions to Tender

The City of Osawatomie appreciates your Company taking the time to prepare proposals pursuant to this RFP. Your Company understands that The City of Osawatomie will have no obligation to reimburse any costs associated with the development and presentation of a response to this RFP, and these costs are not chargeable in any manner to The City of Osawatomie.

This RFP is not an offer to contract. Acceptance of a proposal neither commits The City of Osawatomie to award a contract to any Company, even if all requirements stated in this RFP are met, nor limits The City of Osawatomie's right to negotiate in its best interest. The City of Osawatomie reserves the right to contract or not to contract with your Company for any reason whatsoever.

All materials submitted in response to this RFP will become the property of The City of Osawatomie and will be returned to the Service Provider only at The City of Osawatomie's option. The City of Osawatomie will be entitled to use, modify or reject any of the content contained in each proposal submitted in response to this RFP as The City of Osawatomie deems appropriate whether or not the Service Provider is selected.

The City of Osawatomie data is and will remain the exclusive property of The City of Osawatomie, as applicable. The Service Provider will not possess or assert any lien or other rights against The City of Osawatomie data. No City of Osawatomie data, or any part thereof, will be sold, assigned, leased or otherwise disposed of to third parties by the Service Provider or commercially exploited by or on behalf of the Service Provider, its employees or agents. Upon The City of Osawatomie's request at any time or upon the termination or expiration of any agreement with The City of Osawatomie or any of its affiliates for any reason, The City of Osawatomie's data (including all copies thereof) will be promptly returned to The City of Osawatomie by the Service Provider in a form reasonably requested by The City of Osawatomie.

#### 4) Response Requirements

All proposals are due by 2:00 pm on 12/02/2022. Proposals shall be sealed and mailed or dropped off to:

The City of Osawatomie

#### Attn: Tammy Seamands, City Clerk

P.O. Box 37

509 5<sup>th</sup> Street

Osawatomie KS. 66064

All proposals shall include the following:

- 1. Cover letter with contact information
- 2. Three (3) printed copies of your organization's completer proposal, including a separate tab within the proposal for pricing.

### 5) Evaluation Criteria

Company Background/Capabilities	15%
Equipment, DC-fast (Quality, Functionality, Security)	15%
Equipment, Level 2 (Quality, Functionality, Security)	15%
Charger Software/Network (Capabilities and Security)	15%
Customer Support and Professional Services	15%
Deal Structuring Options	10%
Pricing (List and Total Cost of Ownership)	15%
Total	100%

II. Structure and Content of RFP Responses from Vendors

## 1) Company Background and Capabilities

We are looking for an electric vehicle (EV) charging solution partner that can deliver a complete ecosystem to support public charging including seamless integration of hardware, software, and services along with the ability to easily scale in terms of both quantity/quality of deployment and locations. We are seeking a single prime vendor that can serve all of our needs. Vendors that are proposing multiple sub-contractors/vendors to support charging hardware, software, and services must demonstrate how the various providers work together to provide the overall solution while minimizing risks and costs to us as the station owner/operator.

#	Description	Explain
1	Company must demonstrate significant experience in the EV	
	charging market, specifically for public charging. Please provide	

	information on total years of market experience, stations	
	sold/networked, number of customers, etc.	
	sold/fietworked, fulliber of customers, etc.	
2	Solution must include charging hardware, charger software, and	
	services supporting deployment and ongoing service. Please	
	indicate coverage of those elements and any exceptions.	
3	Solution approach must ensure seamless integration and	
	operation of the charging hardware, software, and services.	
	Preference is for a single vendor providing all elements. If solution	
	includes multiple vendors for hardware and/or software, please	
	describe how integration is conducted and how functional issues	
	are addressed, communicated, and coordinated between the	
	multiple parties to ensure no added risk or costs to the customer.	
4	Vendor shall describe global markets served.	
5	Vendor shall describe partners supporting sales of products,	
	installation and ongoing service of stations.	
6	Vendor shall demonstrate financial viability in terms of revenue	
	over the past 3 years, funding sources, etc.	
7	Vendor shall describe number of employees actively working full	
	time on the products/services offered through this solicitation	
8	Vendor shall indicate what percent of overall corporate sales is	
	related to EV charging versus non-EV charging business.	
9	Vendor shall outline how their proposed solution will scale to	
	support additional public charging at this site or multiple sites.	
10	Vendor itself must have ISO 9001 certification or show evidence	
	that such a certification is in progress and will be available within a	
	reasonable timeframe.	
11	Vendor itself must have ISO 27001 certification or show evidence	
	that such a certification is in progress and will be available within a	
	reasonable timeframe.	
12	Vendor itself must have ISO 14001 certification or show evidence	
	that such a certification is in progress and will be available within a	
	reasonable timeframe.	
13	Vendor itself must have ISO 45001 certification or show evidence	
	that such a certification is in progress and will be available within a	
	reasonable timeframe.	
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# 2) Charging Equipment

We are seeking EV charging hardware solutions that are of the highest quality and capabilities, which are forward compatible, and flexible to meet a range of use-cases, vehicle types, and other factors of consideration.

#### AC Level 2 Charging

This section provides minimum charging station specifications for AC Level 2 charging equipment, covering safety, electrical input/output, cables and cable management, operating conditions, and user interaction.

Vendors must respond "Yes, or No" to meeting these minimum criteria, then may also provide specific details and/or explanation.

#	Description	Compliant (Y/N – Explain)
	Basic EV Charger Requirements	
1	Input Power Supply – 208V/240V 60Hz single phase	
2	Output Amperage/Power Capacity – up to 7.2kW (30 continuous amps at 240 V)	
3	SAE J1772 Connector	
4	UL listed	
5	UL2231 (Parts 1 and 2) – UL standard for Personnel Protection Systems for EV supply circuits	
6	UL916 – UL standard for energy management	
7	Enclosure Rating - NEMA 3R or better, per UL 50E	
8	NEC Article 625 and related articles and tables	
9	Open Safety Ground Detection – continuously monitors presence of safety (green wire) ground connection	
10	Surge Protection – 6kV @ 3000A	
11	Ground Fault Detection – 20mA CCID with auto retry	
12	Operating Temperature – -22F to 122F (-30C to +50C)	
13	Operating Humidity – up to 95% @ 50C (122F) non-condensing	
14	Cable Length – standard 18' cable length, longer cable lengths should be available	
15	Available automatic cable retraction to keep cables from lying on the ground	

16	LED display that provides station and sharring status, displays	
16	LED display that provides station and charging status, displays pricing, and provides driver interaction for other advanced features.	
17	ENERGY STAR <sup>®</sup> certified	
18	Energy Measurement: +/- 2% from 2% to full scale with 15-minute interval recording	
19	EVSE must provide local data storage in the event of a network communication failure. All data automatically uploaded when connectivity is restored. Must have sufficient storage to hold at least 30 days of offline data.	
20	Vendor must conduct vehicle interoperability testing with the charging equipment. Please describe. For vendors proposing different hardware and software solutions, please elaborate on how systems are tested together including software/firmware updates.	
21	Vendor must conduct reliability and environmental testing of hardware. Please explain capabilities and testing.	
22	Station must provide the ability for custom branding. Please explain how this is accomplished.	
	Security Requirements	
23	Must support secure RFID cards that utilize NEMA EVSE 1.2-2015 EV Charging Network Interoperability Standard Part 2: Contactless RFID Credential for Authentication (UR interface).	
24	All data must be encrypted at the station using industry standard measures. All data, including in-memory and on-device must be encrypted.	
25	Each station must have a unique digital device certificate. The certificate ensures proper authentication to the network and prevents unwanted devices from impersonating a trusted device.	
26	All firmware for the station must be digitally signed to prevent tampering and malicious code injection.	
27	Stations must routinely undergo a 3rd party vulnerability assessment, which includes a tear down of the station looking for ways to break into the station and access data, load/inject malicious code, or otherwise compromise the integrity and security of the station and the connected services.	
28	Station must not use local IT resources for cloud connectivity. This includes use of 3rd party Wi-Fi or Ethernet networking equipment, or other means of connectivity that could be exploited.	

29	All data between the station and the cloud must be encrypted end-to-end using industry standard measures.	
30	The stations must not rely on the public Internet for communication and must not be addressable from the Internet.	
31	Must support secure NFC (Apple Pay, Google Pay), allowing mobile devices to be used in lieu of RFID cards.	
32	Station must never store any payment card information locally and instead must support real-time payment processing via secure VPN to a PCI compliant payment processor.	

### DC Fast Charging

This section provides minimum charging station specifications for DC-fast equipment, covering safety, electrical input/output, cables and cable management, operating conditions, and user interaction.

Vendors must respond "Yes, or No" to meeting these minimum criteria, then may also provide specific details and/or explanation.

#	Description	Compliant (Y/N – Explain)
	Basic EV Charger Requirements	
1	Input Power: 480VAC 60Hz 3-phase	
2	Please address one or both of the desired power output ranges:	
	a. Between 50-100 kW	
	b. Above 100 kW (can be standalone or shared power	
	between 2 dispensers)	
3	Output Voltage range: 200V – 1,000V	
4	Operating Humidity: up to 95% @ +50C non-condensing	
5	Power Conversion Efficiency: 96% or better.	
6	Total Harmonic Distortion (iTHD) < 5%. Must meet IEEE519 and	
	use active power factor correction.	
7	Power Factor: 99%	
8	Station must provide the ability to support up to 2 connectors	
	attached to a single station including options for SAE CCS1 and	
	CHAdeMO connectors. Note only one connector needs to be able	
	to charge at any one time.	
9	Minimum cable reach 14'	
10	EVSE must have minimal required maintenance using liquid	
	cooling and field swappable modular architecture without any	
	specialized tools or expertise required.	
11	LED display that provides station and charging status, displays	
	pricing, and provides driver interaction for other advanced	
	features.	
12	Must support an external shunt trip in lieu of an integrated	
	emergency stop button on the unit.	

13	Energy Measurement: +/- 2% from 2% to full scale with 15-minute	
	interval recording	
14	Station should be capable of OCPP 1.6J, or later, governing	
	communication between the station and the network.	
15	EVSE must provide local data storage in the event of a network	
	communication failure. All data automatically uploaded when	
	connectivity is restored. Must have sufficient storage to hold at	
	least 30 days of offline data.	
16	Vendor must conduct vehicle interoperability testing with the	
	charging equipment. Please describe. For vendors proposing	
	different hardware and software solutions, please elaborate on	
	how systems are tested together including software/firmware	
	updates.	
17	Vendor must conduct reliability and environmental testing of	
	hardware. Please explain capabilities and testing.	
18	Buy America compliant where necessary for federal funding.	
19	Station must provide the ability for custom branding. Please explain	
	how this is accomplished.	
	Security Requirements	
19	Must support secure RFID cards that utilize NEMA EVSE 1.2-2015	
	EV Charging Network Interoperability Standard Part 2: Contactless	
	RFID Credential for Authentication (UR interface).	
20	All data must be encrypted at the station using industry standard	
	measures. All data, including in-memory and on-device must be	
	encrypted.	
21	Each station must have a unique digital device certificate. The	
	certificate ensures proper authentication to the network and	
	prevents unwanted devices from impersonating a trusted device.	
22	All firmware for the station must be digitally signed to prevent	
	tampering and malicious code injection.	
23	Stations must routinely undergo a 3rd party vulnerability	
	assessment, which includes a tear down of the station looking for	
	ways to break into the station and access data, load/inject	
	malicious code, or otherwise compromise the integrity and	
	security of the station and the connected services.	
24	Station must not use local IT resources for cloud connectivity. This	
	includes use of 3rd party WiFi or Ethernet networking equipment,	
	or other means of connectivity that could be exploited.	
25	All data between the station and the cloud must be encrypted	
	end-to-end using industry standard measures.	
26	The stations must not rely on the public Internet for	
	communication and must not be addressable from the Internet.	
27	Mixed employee/public use only: Must support secure NFC (Apple	
	Pay, Google Pay), allowing mobile devices to be used in lieu of	
	RFID cards.	
28	Station must never store any payment card information locally and	
	instead must support real-time payment processing via secure	
	VPN to a PCI compliant payment processor.	

# 3) EV Charger Software/Network

This section covers communication from the charging stations to the cloud and guidance on what the cloud management platform should support.

#	Description	Compliant (Y/N – Explain)
	Required Basic Charger Software Functionality	
1	Must provide a charger management software platform to remotely communicate and provide relevant features associated with the proposed EV chargers.	
2	Solution must offer real-time status of EVSEs and must be available to station owners via secure website.	
3	Solution should be capable of OCPP 1.6J, or later, governing communication between the station and the network.	
4	Communications to EVSE must be via cellular network, either directly via integrated 4G/LTE modem or via a 4G/LTE gateway without relying on any local IT infrastructure (cell repeaters may be necessary).	
5	Solution must provide web-based dashboard showing charging status (charging, charge complete, error), session duration, charging rate (kW), and energy (kWh)	
6	Must have ability to grant access to allow 3 <sup>rd</sup> party data collection and/or administrative access to stations via secure web interface or API.	
7	For each charging session, EVSE must collect (minimally) station identifier, session start/stop times, total energy (kWh), session fee, active charging time, unique user ID (non-PII), at session level with the option for 15-minute meter data.	
8	Solution must offer power management features, including but not limited to ability to intelligently oversubscribe the available infrastructure (at the circuit, panel, or site level), scheduled charging, demand response, etc.	
9	Solution must provide existing reporting features including but not limited to energy usage, maximum power, sessions, utilization, greenhouse gas savings, etc. Data shall also be exportable.	
10	Must be able to apply different fees to different classifications of drivers (e.g., employees, visitors, commercial tenants) if station to be shared by various user types.	

11	Vendor software must be capable of setting, collecting, and	
	remitting driver fees based on a variety of driver pricing structures	
	including based on time, sessions, or energy.	
12	Must support a queuing function, allowing drivers to join a virtual	
	lineup and be served in the order that that joined.	
13	Vendor must offer EV driver services including a mobile app to	
	find, authenticate, and pay for charging station use.	
14	Vendor must be OpenADR2.0b certified	
	Required Security & Certifications	
15	Network service provider must have a SOC 2 Type II report	
	available or show evidence that such an audit is in progress and	
	will be available within a reasonable timeframe.	
16	Hosting facilities (either in-house or contracted through a hosting	
	provider) must comply with industry standard certifications,	
	including FIPS, PCI, ISO 9001, ISO 27001, and FedRAMP.	
17	All data stored within the hosting facilities or in transit to or from	
	other systems (including but not limited to: charging stations,	
	mobile devices, laptops/computers, third party services, roaming	
	partners, etc.) must be encrypted using industry standard	
	measures.	
18	Network service provider and the hosting facilities must comply	
	with applicable data privacy regulations, including GDPR and CCPA.	
19	Network must be PCI (Payment Card Industry) compliant.	

# 4) Customer Support & Professional Services

The following are support, warranty, repair and maintenance services for all charging stations.

#	Description	Compliant (Y/N – Explain)
1	EVSE must come with minimum one year parts warranty.	
2	Must provide toll-free EV driver customer support 24/7/365.	
3	Must provide technical support for station owners at least during business days with option for 24/7 coverage.	
4	Must offer Driver Support in multiple languages. Pease state which languages.	

5	Must offer Driver Support that is able to activate stations and process payments over the phone in the event where a driver is unable to do so at the station.	
6	Customer Support must not be contracted out and primary support must be located in North America. Please describe.	
7	Must offer optional full-service parts and labor warranty that includes proactive monitoring and repairs to provide an uptime guarantee of at least 98%.	
8	Vendor must offer deployment services and support including but not limited to site design guidance, modeling, commissioning, and training. Please briefly indicate which services are offered.	

## 5) Deal Structuring Options

This section clarifies the deal-structure options which Provider must offer. Vendor must affirm able to meet this criterion and provide concise explanation/additional detail if necessary.

#### EVSE provider must offer both of the following for any charging solution:

- (1) an *equipment purchase* option, with associated ongoing network services/software and maintenance/warranty services paid on an annual or prepaid (e.g., up to 5 years) basis; and,
- (2) some form of <u>third-party owner option</u> (equipment lease, "as a Service" or other form) which bundles together equipment, network/software services, and warranty/repair services for one annual, recurring fee. Warranty and repair services must offer 98% uptime SLA or better.

Please elaborate on the requested options and note any exceptions. Please elaborate on the requested options and note any exceptions. Do not provide pricing in this section as that will be included in Section III.

## 6) References

Please provide minimum 3 references for identical charging solutions of similar use case and scale.

# III. Pricing

Vendor shall provide summary pricing below for the requested charging stations where networking/software and full-service warranty costs must be provided as both year-to-year and a five-year prepaid option.

To ensure equal comparison, full-service warranty is defined as the vendor providing labor and parts coverage, proactive monitoring and creation of service tickets, and full coordination of all remote troubleshooting and dispatch of onsite labor to provide an uptime guarantee of at least 98%. Please provide any exception to this with your pricing.

#### Pricing for Level 2

**Direct Equipment Purchase Option** 

Model#	Description	Equipment	Network/Software Services for 5-year Period	Full-Service Warranty with Uptime Guarantee for 5-year Period
		Cost (\$)	Cost (\$)/Dual Port Station	Cost(\$)/Dual Port Station
	Dual-port wall- mount L2 station			
	Dual-port pedestal L2 station			

Third Party Owned/Leased/"As a Service" Option

Model#	Description	Equipment/Network/Software/Full-Service Warranty Bundle for a 5-year Term COST (\$) PER YEAR per Dual Port Station
	Dual-port L2 wall mount station	
	Dual-port L2 pedestal mount station	

## Pricing for DCFS

### Direct Equipment Purchase Option

Model#	Description	Equipment	Network/Software Services for 5-year Period	Full-Service Warranty with Uptime Guarantee for 5-year Period
WOUL!#		Cost (\$)	Cost per System/ 5 Year Period	Cost per System/ 5 Year Period
	<100 kW Solution			
	>100 kW Solution			

# Third Party Owned/Leased/"As a Service" Option

Model#	Description	Equipment/Network/Software/Full-Service Warranty Bundle for a 5-year Term COST (\$) PER YEAR per System
	<100 kW Solution	
	>100 kW Solution	

# IV. General Terms & Conditions

Vendor is asked to please provide their Terms and Conditions specific to the products and services proposed within this submission.