TRA25-03 - Charging Management Software - Technical Specifications

	Bia Power Grid SL	Energy Network Services	Evenergi Software Consulting Limited	EV Gateway	Evlution Charge	Flipturn Inc.	Foreseeson Technology Inc.	Guillevin International	InCharge Energy	Nuvve	PD McLaren Ltd.	Polara Energy	Synop Inc.
<u>Line</u> <u>Specifications</u>	Yes/No Information	Additional Yes/No Information	Yes/No Additional Information	Yes/No	Additional Yes/No Information	Yes/No Additional Information	Yes/No Additional Information You	es/No Additional Information	Yes/No Additional Information	Additional Yes/No Information	Yes/No Additional Information	Yes/No Additional Information	Yes/No Additional Information
1 Capable of integration	Yes Bia is compatible with	Yes Software	Yes BetterFleet is continuously adding	Yes	Yes EVIution Network is	Yes Flipturn is compatible with all EV Charging makes and models that support	Yes In addition to manufacturing and selling our Yes	s In addition to manufacturing and selling our own EV Y	es Our software has been tested with the following EVSE manufacturers:	No Only if Nuvve does the	es We are capable of integrating with all other OCPP-	es Polara's CMS is fully interoperable with all	Yes As detailed within 'Minimum Qualification'
with other manufacturers'	any charging equipment that is	compliant with other OCPP	integration with charger companies. Currently our platform		compatible with all DCFC and Level 2	OCPP 1.6 and later including OCPP 2.0.1. The list below is continually being added to and other makes/models are being tested every week. Please	own EV charging equipment ChargePoint has over 8 years of experience integrating	charging equipment ChargePoint has over 8 years of experience integrating EVSEs from other	ICE ABB LiteOn JuiceBar Siemens Delta Tellus Power SemaConnect Freewire and Power Electronics. We have an active program to add	Integration	enabled networks and charging stations.	Level 2 and Level 3 chargers listed in this response ensuring seamless communication	and 'Scope of Services' response
charging equipment.	OCPP compliant. Some	compliant	is integrated with ABB Heliox and		Chargers that are	contact support@getflipturn.com for information regarding specific OEMs	EVSEs from other manufactures onto our	manufactures onto our network. The ChargePoint	further EVSE as we see customer demand. All industry standard OCPP			control and performance across a wide	
Please indicate the manufacturers and	examples are charging equipment we are	hardware.	Siemens. We are in the midst of integrating with Kempower and		OCPP 1.6j or 2.0.1 compatible.	that are not listed below.	network. The ChargePoint Network supports the OCPP v1.6J and 2.0.1 protocol	Network supports the OCPP v1.6J and 2.0.1 protocol making it possible to integrate any	 1.6-J chargers can communicate with our software for session reporting. Depending on the age of the equipment InCharge may still be 			range of hardware.	
models of charging	currently integrated		actively speaking to other charger		compatible.	ABB Lite-On	making it possible to integrate any charging	charging station that communicates via the protocol	able to connect to the charger network and capture charger session				
equipment to which	with are ABB Jema		companies.			Alpitronic OpConnect	station that communicates via the protocol	onto our network. ChargePoint has developed a	data that we can incorporate into dashboards and reports that are visible in the InControl software platform.				
the software is compatible with.	Circutor XCharge PowerElectronics		ABB			Ampure Phihong Autel PII	onto our network. ChargePoint has developed a robust integration program	robust integration program with a dedicated team to facilitate this process to adequately conduct	visible in the inControl software platform.				
	Heliox EkoEnergetyka		Tritium			Blink Power Electronics	with a dedicated team to facilitate this	integration and ensure stations works as expected.					
	Alfen Schneider Electric Ingeteam		Phihong (Zerova)			Borg Warner Samsung BTC Sanki	process to adequately conduct integration and ensure stations works as expected.	Currently our portfolio of charge management software supports charging hardware from: ABB					
	Legrand Luobinsen		Siemens			ChargePoint Schneider Electric	Currently our portfolio of charge	Alfen Alpitronics IES Eaton Ebusco Heliox Proterra					
	Wallbox EVBox GoE		Kempower			ChargeTronix Siemens	management software supports charging	Tritium and more.					
	Zappi plus many more.		Jema Hitachi			Delta SK (Atom Power) Faton Tellus	hardware from: ABB Alfen Alpitronics IES Eaton Ebusco Heliox Proterra Tritium and						
			Tellus			EvoCharge Tritium	more.						
			Alpitronic			Fractal EV Vector Heliox Wallbox							
						InCharge XCharge							
2 Must provide a web-	Yes Yes we have an	Yes	Yes BetterFleet Manage offers an	Yes	Yes Yes	Yes Flipturn's robust web-based platform allows for data exporting and API	Yes ChargePoint charge management software Ye	s ChargePoint charge management software can Y	es InControl is a web-based application no additional hardware or	Yes	es Our Charger Mangement Software Camber Core collects	es Cleo dashboards provide exportable reports	Yes As detailed within 'Minimum Qualification'
based platform that includes exportable	interactive dashboard that provides in-depth		interactive dashboard which is fully capable of meeting the			interface. Our platform includes all of the minimum requirements in the specification as well as:	can provide the listed functions and/or information. Control functions include the	provide the listed functions and/or information. Control functions include the following allowing a	software needed. InControl provides a comprehensive view of EV charging station information which can be accessed by drivers fleet		and logs data about every EV charging session. This data is available to software users to manage and analyze	real-time control and historical analytics. Please refer to our supporting	and 'Scope of Services' response
data and a dashboard	and real-time charger		minimum reporting requirements.				following allowing a user complete control	user complete control to optimize fleet charging	managers and customers in real time and static basis. This information		through a web-based platform. Please consider the	documentation regarding all Cleo additional	
showing information and controls that will	and vehicle monitoring and management as		Beyond this, BetterFleet provides additional functionality			- Telematics integration for easy identification of vehicle location and state of charge	to optimize fleet charging and electrical	and electrical costs: •Access control	can be used to improve the efficiency of EV charging operations optimize fleet management and make better decisions about EV		charging session data points logged below:	functionalities.	
be available from the			such as information on charger			Depot View to allocate charging stations and vehicles to individual depots	•Access control	Dynamic power module allocation	charging infrastructure investments. Customers manage access control		Transaction ID		
proposed charging	capabilities and		alerts - helpful for troubleshooting			- Site/Depot wide power limits	Dynamic power module allocation	Cable Sharing	user invitations and permissions configure reports edit chargers		Start time		
station. To include at a minimum:	automated reports.		common issues and completing root cause failure			- Late charging/late vehicle departure predictions - Vehicle charging prioritization	Cable Sharing Charge scheduling	Charge scheduling Power Sharing Management: circuit panel and site	vehicles and sites manage notifications set load and energy management policies and file and monitor support tickets. The location		End time Duration		
- Station identifier	Real-time - charging		analysis - as well as the ability to			- Manual charging overrides	Power Sharing Management: circuit panel	levels	of each station including its address city state geocoordinates and zip		Charger name		
physical location - Charging station	session: SoC power consumption energy		restart chargers (both soft and hard restarts) and			- Charging station error reporting with OEM error explanation - Charging session timeline - Charging session timeline - Charging session timeline	and site levels •Plug and Charge	Plug and Charge A Pl	code. kWh costs/consumption: We enable users to enter tariff information		Charger serial number Connector ID		
status	drawn departure time		override charging schedules if			- Utility rate integration	•API	•Fleet Integration (for telematics)	for cost tracking. This enables us to track the cost of charging an EV at		Total energy import		
- Charging session	load profile max/min		needed. It also provides			- Alerting functionality	•Fleet Integration (for telematics)	Please refer to Section 2 of the attached	each station on a session basis as well as the amount of energy		Total energy export (to support V2G) EV MAC ID/idTag		
start/stop times - Active charging time	power transfer vehicleID connection		information such as time to charge and other data that is critical for			Standard Reports:	Please refer to Section 2 of the attached	ChargePoint Solutions Overview for additional	consumed by each charging session. Power levels: The maximum power output of each station.		Vehicle name/VIN		
- kWh delivered to the	start/end expected		school bus			- Charger Health Report	ChargePoint Solutions Overview for	details	Online status: The current status of each station whether it is online		Peak and average power during session		
bus - Power consumed by	finish time)		operations.			- Charging Error Report - Charging Summary Report with calculated sustainability metrics	additional details.		and available for use offline for maintenance or out of order. Occupancy: The number of vehicles currently charging at each station		Number of faults occurring in the session Reason for session ending		
the charger (kw)	Real-time management					- Fleet Efficiency Report			and overall utilization of an account site or group of chargers.		Start SOC		
Please indicate all	- boost charge					- Vehicle Range Report					End SOC		
Please indicate all software reporting	start/stop reset apply setpoint unlock					 Power Demand Report with utility rate integration and peak demand capture 					Min max average current and voltage All OCPP messages exchanged during session including		
canabilities 3 Software must have	Yes We can integrate via	w	Yes BetterFleet is built on a open and	Yes	Yes Yes API for BC LFCS	Finerøy I Isaøe Renort with utility rate integration Yes Yes our web interface allows multiple levels of access within or outside of	Yes ChargePoint cloud software allows API Yes	s ChargePoint cloud software allows API integration			mater values (es We offer this via OCPP pulling a report from our web	es REST API and web-based portals are	Yes As detailed within 'Minimum Qualification'
the ability to grant 3rd		Yes	accessible API driven architecture.	Yes	and Canadian	the ASTSBC. We also have a comprehensive suite of API's for secure data	integration and web-based data downloads.	and web-based data downloads.	es Customers manage access control user invitations and permissions configure reports edit chargers vehicles and sites manage notifications	res	based portal and API.	available to authorized stakeholders.	and 'Scope of Services' response
party data collection	relevant to a fleets		We believe in open data access		Federal Carbon	collection.			set load and energy management policies and file and monitor support				
and administrative access (Purchaser and	operation (ERP telematics fleet		and will facilitate this request via API xIs downloads.		credits is available.				tickets. InControl offers several user roles based on customer configuration as well as licenses purchased. The base license includes a				
ASTSBC) to stations via			ALL NO GONTHOUGH.						Member provided read-only access to views and reports and Admin				
secure web interface or API.	battery storage depot management SCADA								where the user can manage users access control alerts naming customize reports view error/issue reports set load and energy				
OF API.	eroaming).								management policies and file and track support cases. Premium				
									features enable roles that can access the API and API key management				
	Some of these integration be used for								telematics integrations credit card integrations and PowerBI dashboards. We can also create custom roles to suit customers with				
	optimizing charging -								specialized needs - we have over 80 different role touchpoints available				
5 Supplier is responsible	No A data network is not	Yes	Yes 4G LTE Cellular Routers will be	Yes	Yes Our cellular provider	Yes Yes we will activate the charging stations onto our network via pre-	Yes All ChargePoint products utilize a private Ye	S All ChargePoint products utilize a private cellular	es InControl is a web-based application no additional hardware or	Yes Additional equipment	es We utilizing an eSim capable of roaming between multiple Y		Yes Certain EVSE OEMs will provision SIM cards as
for enabling cellular connectivity to a data	typically provided by a charge management		installed and used on the project. Our architecture		gives the option to choose between	commissioning with the selected hardware vendor or utilizing the included SIM card at time of charger activation.	cellular network for security purposes; network activation is completed by	network for security purposes; network activation is completed by ChargePoint during the install	software needed. Our modems and SIM use 4G.	will be required for cellular connectivity.	networks for optimal coverage.	or Rogers depending on location.	well as connect their hardware to the Synop cloud prior to shipment as with our 'Works
network prior to	software provider.		includes two separate hardware	1	multiple major		ChargePoint during the install process.	process.		We can use any cellular	I		with Synop' partners
installation. Please describe proposed	Please confirm if this is a mandatory		devices (rather than one dual sim device), each on	1	cellular networks including Bell Rogers	For chargers that do not include a native SIM card Flipturn uses a multi network SIM card and connects to all major networks like Telus Bell Rogers				provider used by the customer.	I		(https://www.synop.ai/works-with-synop). Where ASTSBC does not select a Works with
network.	requirement.		separate cellular networks. This		and Telus as	Videotron				customer.			Synop partner we would ask for the selected
			can be used for both the charger internet connectivity		applicable to the best signal strength								partner to build a new process of provisioning our SIMs prior to shipment. This can either be
			and all BetterFleet hardware.		for the charger								at the manufacturing facility or with a
				1	installation.						I		Distribution partner as two examples.
6 Supplier will perform the testing and	Yes As part of our onboarding process we	Yes	Yes A cornerstone of BetterFleet's approach to deploying its charge	Yes	Yes yes	Yes Yes Flipturn has already performed interoperability testing with the vendors referenced in the above list we will perform additional testing on the	Yes ChargePoint is a vertically integrated Ye solution provider. This means we design	s ChargePoint is a vertically integrated solution younger. This means we design engineer and	es We work with roaming SIM Cards which choose the strongest network.	Yes	'es Yes we have included charger testing and commissioning in our previous pricing.	es CMS testing is conducted in tandem with charger commissioning to validate sync	Yes
commissioning of the	will work with the		management system is ensuring			referenced in the above list we will perform additional testing on the required hardware if the chosen hardware vendor is referenced above. At	engineer and manufacture all elements of	manufacture all elements of the solution including			in our previous pricing.	telemetry and control.	
software with the	clients and the		integration of chargers and electric	1		time of charger install we will perform commissioning and final testing as	the solution including hardware software	hardware software and services to best meet			I		
applicable charging station/s so that it is	hardware providers to ensure the system is		school buses. We attest that we facilitate the process of ensuring			well to ensure all data we are receiving from the charger is valid and the charger is ready for use.	and services to best meet customer needs. This approach also avoids the challenges	customer needs. This approach also avoids the challenges and risks associated with matching			I		
functional and ready	configured correctly		systems 'speak' to one another			- ···, · ···	and risks associated with matching different	different hardware and software vendors and			I		
for use.	and fully functional		through testing and commissioning.	1			hardware and software vendors and having to determine responsibilities when	having to determine responsibilities when inevitable issues arise. ChargePoint ultimately			I		
			201111133IO1113g.				inevitable issues arise. ChargePoint	provides customers with a "one stop shop" for all			I		
							ultimately provides customers with a "one stop shop" for all your charging needs with	your charging needs with the highest degree of confidence in quality reliability and functionality.			I		
				1			the highest degree of confidence in quality	continuence in quality reliability and functionality.			I		
							reliability and functionality.						