TRA25-03 - Level 3 Charging Station - Technical Specifications, Network Services & Installation

Line	Specifications	Energy Network Services		EV Gateway		Evlution Charge		Foreseeson Technology Inc.		Guillevin International		InCharge Energy		Nuvve		PD McLaren Ltd		Polara Energy		Western Canada Bus	
		Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information
Technical Specifcations																					
1	The charging station is compatible with at least one of the electric buses outlined in the TRA 23-02 document - please specify which model/s	Yes	The chargers have been tested with BYD/RIDE Bluebird IC ThomasBuilt and Lion.	Yes	Manufacture's Name: Tellus Power Green Model Number (s): TP-EVPD-30KW TP-EVPD-60KW	Yes	Type A: Micro Bird is compatible tested with Girardin in Quebec with their Movable charger Ride Achiever: unknown Type C: Bluebird Vision is compatible tested with Girardin in Quebec IC Bus Electric CE Series: compatible tested with a Movable charger in Navistar Ride Creator: unknown Thomas C2: Tested and compatible school boards equipped (see https://ikempower.com/back-to-school-the-future-of-esbs-recorded/) Lion: Tested and compatible school boards equipped (see https://www.youtube.com/watch?v=IA9L410FkHU) Type D: Bluebird All American Electric: not tested but should behave as Bluebird Vision Ride Dreamer: unknown	Yes	ChargePoint Express (CPE250/CPE280) utilize a CCS Type 1 connector. It is compatible with all vehicles that use the same. From the provided models it appears that would include ChargePoint has successfully conducted testing at ChargePoint's interoperability lab in Campbell CA with Blue Bird IC Bus and Lion. ChargePoint's hardware and software tested successfully with the Thomas Built Jouley at the Daimler HQ electric island. e the Micro Bird G5 Bluebird Vision LionC IC Bus and Thomas/Jouley.	Yes	ChargePoint Express (CPE250/CPE280) utilize a CCS Type 1 connector. It is compatible with all vehicles that use the same. From the provided models it appears that would include the Micro Bird G5 Bluebird Vision LionC IC Bus and Thomas/Jouley. ChargePoint has successfully conducted testing at ChargePoint's interoperability lab in Campbell CA with Blue Bird IC Bus and Lion. ChargePoint's hardware and software tested successfully with the Thomas Built Jouley at the Daimler HQ electric island.	Yes		Yes	For charging our Level 3 Chargers can charge all 3 models listed: Vision Electric Type D Blue Bird Vision Type C and Micro Bird Type A. For V2G capabilities we are compatible with the Blue Bird model.	Yes	The charging stations that we are offering are compatible with all electric buses outlined in this specification.	Yes	All Level 3 chargers are CCS1 compliant and have been tested with the models listed in the TRA 24-02	Yes	IC Bus
2	Input Power Supply – 480VAC 60Hz single or three phase - please indicate	Yes		Yes	NA	Yes	3-Phase 480VAC 60Hz	Yes		Yes	ChargePoint Express support a 400 to 480 VAC/60 Hz 3-phase input.	Yes	The 480V is 3 phase.	Yes		Yes	We offer all Level 3/DC Fast Chargers at 480VAC 3 Phase Power.	Yes	All listed DC chargers operate on 480V 3-phase (some support single phase as well e.g. AUTEL 24kW DCWB).	Yes	Single
3	Minimum charging power of 24kW - please specify charging output capability	Yes	30kW output available	Yes	EvGateway is proposing 30kW and 60KW chargers. 60 kW chargers will have two connectors with a capability to dispense 30kW power on each connector simultaneously.	Yes	From 25kW	Yes	ChargePoint Express 250 (CPE250) can provide up to 62.5 kW to a single port. ChargePoint Express 280 (CPE280) can provide up to 80 kW to a single port. Both units can be electrically paired between two deployed chargers to provide twice the power (125kW or 160kW for CPE250/280) to a single connected vehicle or shared between two vehicles.	Yes	ChargePoint Express 250 (CPE250) can provide up to 62.5 kW to a single port. ChargePoint Express 280 (CPE280) can provide up to 80 kW to a single port. Both units can be electrically paired between two deployed chargers to provide twice the power (125kW or 160kW for CPE250/280) to a single connected vehicle or shared between two vehicles.	Yes	We have a 30kW offering.	Yes	We are submitting DCFC chargers that range from 30kW output to 180kW output.	Yes	We offer a multitude of units for this solicitation including wallbox units pedestal mounted all-in-one and large cabinet and dispenser systems. We offer output power levels from 24kW on our DC Wallbox unit all the way up to 1440kW in our largest cabinet system. The diversity of power systems is designed to support a wide multitude of clients and use cases.	Yes	All chargers exceed 24kW up to 360kW depending on model.	Yes	24kW
4	Wall-mounted with mounting hardware provided	Yes	Available as a wall-mounted unit pedestal mounted unit or mobile unit on wheels.	Yes	30kW is a wall mounted whereas 60kW is a pedestal mounted.	No	We do not offer a wall-mountable unit	No	ChargePoint CPE250 is available as pedestal only.	No	ChargePoint Express models cannot be wall-mounted. These are pedestal-only surface-mounted. Wall mounted capabilities are available with the Express Plus charging solution or through other integrated 3rd party DCFC manufactures such as ABB's DC Wallbox if required.	Yes		Yes		Yes	Yes we offer wall mounted or pedestal mounted options for all relevant Level 3/DC Fast Chargers. Some of our other Level 3/DC Fast Charger systems are standalone units or power cabinets and dispensers which are free standing and do not require wall or pedestal mounting.	Yes	Wall-mounted options available for Zerova 30kW AUTEL 40kW and others. Mounting hardware is included.	Yes	
5	Capable of use 24 hours a day every day of the year in an Operating Temperature of 22F to 122F (-30C to +50C) and Operating Humidity of up to 95% @ 50C (122F) non-condensing	Yes	Operating Temperature: -22F to +113F (Derating applies when temperature exceeds +113F).	Yes		Yes	As per specs	Yes	Express stations can be used 24 hours a day and is rated with an operating temperature of -40 to 122 F and operating humidity up to 95% at 122 F.	Yes	Express stations can be used 24 hours a day and is rated with an operating temperature of -40 to 122 F and operating humidity up to 95% at 122 F.	Yes		Yes		Yes	Our units can fully operate in this temperature range.	Yes	All listed chargers meet industrial environmental standards validated via datasheets and manufacturer specifications.	Yes	
6	Weatherproof to minimum of NEMA 3	Yes		Yes		Yes	Suitable for outdoor use	Yes	ChargePoint Express models are weatherproof rated to NEMA Type 3R.	Yes	ChargePoint Express models are weatherproof rated to NEMA Type 3R.	Yes		Yes		Yes	Our units are fully NEMA3R certified.	Yes	All chargers are rated to NEMA 3R or better designed for outdoor use.	Yes	
7	Connector compliance with Society of Automotive Engineers (SAE) Combined Charging System 1 (CCS1)	Yes	Comply with J1772	Yes		Yes	yes	Yes	ChargePoint Express models comply; utilize CCS Type 1 charging connector.	Yes	ChargePoint Express models comply; utilize CCS Type 1 charging connector	Yes	We provide CCS CCS Combo and CHAdeMO options.	Yes		Yes	Yes we offer CCS1 connectors as standard with our Level 3/DC Fast Charging Stations.	Yes	All DC fast chargers support CCS1 connectors as standard.	Yes	
8	CSA cUL or other recognized certification approved for use in Canada	Yes		Yes		Yes	As per specs	Yes	ChargePoint Express adheres to the following UL and cUL standards: UL 2202 UL 2231-1 UL 2231-2 CSA 107.1. ChargePoint AC and DC products are currently in use in Canada.	Yes	ChargePoint Express adheres to the following UL and cUL standards: UL 2202 UL 2231-1 UL 2231-2 CSA 107.1. ChargePoint AC and DC products are currently in use in Canada.	Yes		Yes		Yes	Yes our products are fully certified.	Yes	All chargers are CSA or cUL certified per Canadian standards.	Yes	
9	Charging station cord is a minimum of 5m in length. Please indicate other options available.	Yes	standard 5m available option for 7m cable available	Yes		Yes	5 meter standard 7 meter optional	Yes	Express 280 (CPE280) can be configured with either a 5.5 m (18 ft) or 7.5 m (24 ft) reach. Please note the exception with the ChargePoint Express 250 (CPE250) which has a 4.27 m (14 ft) reach with swing arm.	Yes	Express 280 (CPE280) can be configured with either a 5.5 m (18 ft) or 7.5 m (24 ft) reach. Please note the exception with the ChargePoint Express 250 (CPE250) which has a 4.27 m (14 ft) reach with swing arm.	Yes	Yes 25ft	Yes		Yes	5 meter (18 feet) cable is standard 7 meter (25 feet) cable is optional. Longer cables available upon custom request.	Yes	Standard cables are 23–25 feet (7–7.6m) longer options available by request.	Yes	7m
10	Over-current protection that prevents circuit breaker trips	Yes		Yes		Yes	yes	Yes	Both CPE250 and CPE280 are tested to IEC 6100-4-5 Level 5 (6 kV @ 3000A). Both products are installed downstream from a dedicated panel with appropriately sized circuit breakers for overcurrent protection. CPE250 utilizes a 100 A breaker; CPE280 utilizes a 125 A breaker.	Yes	Both CPE250 and CPE280 are tested to IEC 6100-4-5 Level 5 (6 kV @ 3000A). Both products are installed downstream from a dedicated panel with appropriately sized circuit breakers for overcurrent protection. CPE250 utilizes a 100 A breaker; CPE280 utilizes a 125 A breaker.	No	Our DCFC have a built in breaker but it is oversized.	Yes		Yes	For our PE charger cabinets we install an outside breaker to ensure full protection and coverage.	Yes	Over-current protection is built into all units and part of CSA/UL requirements.	Yes	
11	Display must be liquid crystal display (LCD) light-emitting diode (LED) or equivalent and shall be readable in direct sunlight and at night.	Yes		Yes		Yes	yes	Yes	Both CPE250 and CPE280 feature LCDs designed for use in a variety of environmental conditions and use cases.	Yes	Both CPE250 and CPE280 feature LCDs designed for use in a variety of environmental conditions and use cases.	Yes		Yes		Yes	We offer units with LCD displays and without. For example some of our dispensers come with displayers while others have only a power indicator. We offer a range of products to	Yes	All chargers feature outdoor-rated LCD or LED displays readable in all conditions.	Yes	
12	Must automatically continue to provide a charge to the electric school bus if station loses network connectivity or if remote station management system is offline	Yes		Yes		Yes	yes	Yes	Both CPE250 and CPE280 ensure charging can be continued if network connectivity is disrupted.	Yes	Both CPE250 and CPE280 ensure charging can be continued if network connectivity is disrupted.	Yes		Yes		Yes	We offer this capability.	Yes	Autonomous charging fallback is standard. Chargers maintain charge even if CMS is offline.	Yes	
13	Charging station 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.	Yes		Yes		Yes	yes	Yes	Both CPE250 and CPE280 store charge session data for up to 90 days and will upload to the cloud when network connectivity is restored.	Yes	Both CPE250 and CPE280 store charge session data for up to 90 days and will upload to the cloud when network connectivity is restored.	Yes		Yes		Yes	We offer this capability.	Yes	All systems include onboard logging and sync capabilities with 30-day retention minimum.	Yes	
Network Services																					
1	Station is capable of OCPP 1.6J or later governing communication between the station and the proposed network.	Yes	OCPP 1.6J and software is OCPP 2.0 Ready. Hardware upgrade to OCPP 2.0.1 when available.	Yes		Yes	OCPP 1.6j/2.0.1	No		Yes	ChargePoint Express stations are OCPP 1.6J complaint.	Yes	All industry standard OCPP 1.6-J chargers can communicate with our software. Depending on the age of the equipment InCharge may still be able to connect to the charger network and capture charger session data that we can incorporate into dashboards and reports that are visible in the InControl software platform.	Yes		Yes	We are fully compliant with OCPP 1.6J	Yes	All Level 3 chargers offered are OCPP 1.6J compliant or higher.	Yes	
2	The following information and controls (at a minimum) are available from the charging station to be integrated with the Purchaser's charging management software: - Station identifer + location - Charging station status - Charging session start/stop times - Active charging time - kWh delivered - Charging station utilization/output (kW) - Error messages - Control functions Please indicate additional functionalities.	Yes		Yes		Yes	yes	Yes		Yes	ChargePoint charge management software can provide the listed functions and/or information. Control functions include the following allowing a user complete control to optimize fleet charging and electrical costs: •Access control •Dynamic power module allocation •Cable Sharing •Charge scheduling •Power Sharing Management: circuit panel and site levels •Plug and Charge •API •Fleet Integration (for telematics) Please refer to Section 2 of the attached ChargePoint Solutions Overview for additional details.	Yes	InCharge has built its own dealership management platform (InControl) designed to increase uptime and lower the cost to operate a fleet. The software is built with industry-leading security and reliability. It features multi-factor authentication and end-to-end encryption. The platform is designed for scalability of fleets facilities and vehicles with a GraphQL API that increases performance reliability and customization. InControl manages charging stations' access control usage data remote management network operations and advanced load management capabilities. The software reduces operating costs with remote service offerings over-the-air updates and energy management functions. Users can track service warranty and preventative maintenance. Additionally the software provides load management to reduce fleet total cost of operations (TCO) peak energy demand and can generate revenue from incentives and LCFS credits. It is OCPP compatible and interoperability tested with 10 different EV charging OEMs. InControl ensures a comprehensive delivery of services for users with features including but not limited to live session and charger data site yard layout energy and uptime reports real-time updates on charging activity state of charge & charging speed tracking access controls PIN/RFID load management policies automatic alerts of service events and support ticket creation and tracking. Importantly InControl also provides full ownership and control to our customers of their own data generated with an open API to allow integrations into other software platforms such as fleet or building management software accounting platforms or other. No other company in the industry provides this open API tool to our knowledge and certain companies in the industry are notorious for not providing customers access to their own data without paying fees.	Yes		Yes	We offer these functionalities as part of our software Camber Core also known as Valence. These names are interchangeable and describe the same software. We also offer the following: Transaction ID Connector ID Total energy import Total energy export (to support V2G) EV MAC ID/idTag Vehicle name/VIN Peak and average power during session Number of faults occurring in the session Reason for session ending Start SOC End SOC Min max average current and voltage All OCPP messages exchanged during session including meter values	Yes	All required metrics and controls are supported via the Cleo dashboard. Please refer to our supporting documentation regarding all Cleo additional functionalities.	Yes	
3	Supports remote firmware upgrades	Yes		Yes		Yes	yes	Yes		Yes	All ChargePoint products are networked via cellular connection and can be updated remotely.	Yes		Yes		Yes	We fully support Remote Firmware Upgrades.	Yes	Remote OTA firmware updates are supported via CMS.	Yes	
4	Supplier is responsible for enabling cellular connectivity to a data network prior to shipping the unit(s). Please indicate proposed network.	Yes		Yes		Yes	Our cellular provider gives the option to choose between multiple major cellular networks including Bell Rogers and Telus.	Yes	Telus Rogers and Bell are all supported.	Yes	All ChargePoint products utilize a private cellular network for security purposes; network activation is completed by ChargePoint during the install process.	Yes		Yes	We can use any cellular provider used by the customer.	Yes	We utilizing an eSim capable of roaming between multiple networks for optimal coverage.	Yes	Polara pre-configures LTE modems using major Canadian carriers based on site coverage.	Yes	Capable of multiple networks proposed network to be determined by location.
Installation (Optional)																					
1	If providing installation services (optional) all work must be completed under appropriate permit and installation to meet Canadian electrical code requirements.	Yes	Yes ENS can provide installation of units and all electrical infrastructure required to charger across BC. Each site will require an assessment engineering discussion with BC Hydro prior to adding chargers to site.			Yes	yes we have certified red seal electricians on our install team	Yes	Foreseeson will comply to Canadian Electrical Code requirements.	Yes	all ChargePoint partner program - certified installers available are licensed electricians	Yes	To ensure complete execution of hardware and software offerings InCharge offers complete installation and commissioning assistance for all products. This includes site development engineering permitting and self-performance capabilities. Alternatively for our customers who are conducting their own make-ready infrastructure InCharge offers an installation service that completes the installation with a final installation / bolt down service that includes field commissioning to ensure the equipment is installed correctly and operational.			Yes	We can perform complete turnkey installation following a site visit to determine onsite conditions. We will perform all electrical work in accordance with Canada electrical codes and standards.	Yes	Polara ensures installations meet all Canadian electrical code requirements through licensed electricians.	Yes	
2	Supplier must perform the testing and commissioning of the charging station including the successful charge of an electric school bus using each port so that they are functional and ready for use.	Yes	Yes ENS can provide commissioning of units across BC. Depending on site locations & # of units call out times may vary based on region.		**OPTED OUT**	Yes	yes we have a comprehensive commissioning team	Yes	Testing and commissioning is included in our pricing.	Yes	ChargePoint will commission equipment to ensure operability with customer vehicles. Please see additional information of testing and commissioning of the charging station in document ChargePoint Commissioning Overview. ChargePoint has successfully conducted testing at ChargePoint's interoperability lab in Campbell CA with Blue Bird IC Bus and Lion. ChargePoint's hardware and software tested successfully with the Thomas Built Jouley at the Daimler HQ electric island. Many successful LTD deployments with all the above school bus OEMs.	Yes	InCharge requires a commissioning appointment once stations are installed. During the appointment the stations are tested to ensure they are installed to specifications before the stations can be fully energized. If an issue is found during the commissioning appointment that will be provided to the customer so their installer can rectify the issue.		**OPTED OUT**	Yes	We will perform full testing and commissioning on the charging stations as we install them. Please see the optional line items in "Step 1 Schedule of Prices" which describe our commissioning pricing.	Yes	Commissioning process includes successful charging of electric school buses to validate readiness.	Yes	