DATA SHARING AGREEMENT

This Data Sharing Agreement ("Agreement") dated as of ("Effective Date"), by and between , a with offices located at ("Network Service Provider"), and Center for Sustainable Energy, an IRS Code § 501(c)(3) California non-profit corporation, with offices located at 3980 Sherman Street, Suite 170, San Diego, California 92110 ("CSE").

WHEREAS, Network Service Provider operates and maintains an open-platform network of electric vehicle ("EV") charging stations and vehicle charging applications the network delivers (the "EV Network");

WHEREAS, during the operation of the EV Network, Network Service Provider obtains various data from the usage of the electric vehicle charging stations (collectively, the "Data");

WHEREAS, Network Service Provider entered into that certain Electric Vehicle Charging Data Requirements & Agreement with New Jersey Board of Public Utilities ("NJBPU") and New Jersey Department of Environmental Projection ("NJDEP");

WHEREAS, CSE desires to obtain Data from Network Service Provider on behalf of NJBPU and NJDEP for analytical studies aimed to understand and support clean transportation in New Jersey.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Network Service Provider and CSE hereby agree as follows:

1. Description of Available Data; Incorporation of Privacy Policy.

1.1 This Agreement describes the terms and conditions ("Terms of Service") under which CSE is entitled to use Data that Network Service Provider shall make available upon CSE's request for CSE's use as part of Network Service Provider being an electric vehicle charging grant recipient and, operator of charging infrastructure in the State of New Jersey, and as long as Network Service Provider maintains an active Electric Vehicle Charging Data Requirements & Agreement with NJBPU and NJDEP (in connection with a "Program").

1.2 The specific types of Data available to CSE under this Agreement are described in Schedule "A". CSE reserves the right to periodically update Schedule "A," and the Network Service Provider shall provide additional Data within a reasonable time upon receiving notice of any such update(s).

(a) Single-Family Home Charger. If a Network Service Provider operates and maintains a single-family charger, the Network Service Provider must provide the Data as set forth in Table 4 and Table 5 of Schedule "A".

(b) Other Type of Charger. If a Network Service Provider operates and maintains a charger other than a single-family charger, the Network Service Provider must provide the Data as set forth in Table 1, Table 2, and Table 3 of Schedule "A".

1.3 Subject to the prohibitions in this Agreement, during the term of this Agreement, CSE may use the Data for the specific purposes ("Purpose") described in Schedule "B" and for no other purpose.

1.4 Network Service Provider and CSE shall comply with all applicable laws, regulations and best practices concerning privacy and data protection (including but not limited to the California Consumer Privacy Act, the California Privacy Rights Act, and the New Jersey Data Privacy Act, as applicable).

2. Term and Termination.

2.1 Term. The term of this Agreement shall begin on the Effective Date and shall continue for five (5) years from the date of the Network Service Provider's approved electric vehicle charging grant application for each individual charging station unless earlier terminated pursuant to the terms hereof or pursuant to the Electric Vehicle Charging Data Requirements & Agreement Aggregated data may be used by NJBPU, NJDEP and/or CSE beyond the term provided that any identifiable information regarding the Network Service Provider or location has been removed. Within thirty (30) days following the termination of this Agreement, and at the request of Network Service Provider, CSE will provide a written certification, signed by an officer, of its compliance.

2.2 Termination. Network Service Provider and CSE may each terminate this Agreement at any time for convenience by providing thirty (30) days prior written notice thereof to the other party. Network Service Provider may, at any time, terminate this Agreement or cease providing all or any part of the Data without any notice if CSE has breached any provision of these Terms of Service.

3. Representations and Warranties. CSE represents and warrants that, except as otherwise expressly permitted by this Agreement and as specified in Schedule "B", it will not disclose, release, sell, rent, lease, loan, or otherwise grant access to the Data covered by this Agreement to any person. CSE agrees that Network Service Provider will not provide access to the Data covered by this Agreement to its Employees unless the Employees have a need to know the Data, for the Purpose defined in Schedule "B". "Employees" shall mean individuals employed by CSE. CSE shall establish appropriate administrative, technical, and physical safeguards to prevent unauthorized use or access to the Data and shall be liable for any unauthorized access thereto. CSE shall not use the Data by itself, or in combination with any other sources to identify, imply, or otherwise infer, in any way whatsoever, the address or identity of a driver or any person or entity owning, hosting or otherwise using an electric vehicle charging station.

4. Network Service Provider's Proprietary Rights. CSE acknowledges and agrees that Network Service Provider (or Network Service Provider's licensors and their suppliers, as applicable) owns all legal right, title and interest in and to the Data, including, without limitation, any intellectual property rights that subsist in the Data (whether those rights happen to be registered

or not, and wherever in the world those rights may exist). CSE acknowledges that it is obtaining a limited license to use the Data as provided in Section 6.

5. License from Network Service Provider to Data Recipient.

5.1 Network Service Provider retains and reserves all right, title and interest in the Data. No rights are granted except as expressly set forth in this Agreement. Subject to the terms of this Data Sharing Agreement, Network Service Provider hereby grants to Data Recipient a personal, worldwide, royalty-free, non-assignable, non-transferable, non-sublicensable and non-exclusive license to use the Data, for the Purpose, as provided by the Network Service Provider in the manner permitted by these Terms of Service. In accepting the data license, CSE specifically agrees that it (i) will not change any of the Data provided to it in any manner that would make the information contained in such Data inaccurate; (ii) will in no way alter, amend or otherwise modify any of the Data, or present any portion of the Data, in any manner that would convey false, inaccurate or otherwise misleading information; (iii) except as otherwise specifically permitted in Schedule "B," will not publicly display or transfer any of the Data; or (iv) will not suggest that the charging station locations provided as part of the data are anything other than EV Network charging stations.

5.2 Except as expressly permitted under these Terms of Service, or unless CSE has received prior written authorization from Network Service Provider, the licenses provided to CSE under these Terms of Service are subject to CSE's adherence to all the restrictions contained in these Terms of Service. Except as explicitly permitted in Schedule "B", CSE shall not (nor shall it permit anyone else to) (i) license or transfer the Data to a third-party or (ii) copy, translate, modify or publicly display the Data, or any part thereof. Information derived from the Data may be used in publications subject to the terms of Schedule "B" or the review of Network Service Provider; however, in no event may the Data be published or transferred in its raw format. Network Service Provider must be credited as the source of the Data in all publications that incorporates the Data or a derivative work or the Data.

6. License Requirements. Network Service Provider's licenses above are subject to CSE's adherence to the following requirements:

6.1 The Data provided to CSE may contain the trade names, trademarks, service marks, logos, domain names, and other distinctive brand features of Network Service Provider, its partners, or other third-party rights holders of content indexed by Network Service Provider. CSE may not delete or in any manner alter these trade names, trademarks, service marks, logos, domain names, and other distinctive brand features without Network Service Provider's prior written consent, in its sole discretion.

6.2 CSE shall not use the Data by itself, or in combination with any other sources to identify, imply, or otherwise infer, in any way whatsoever, the address or identity of a driver or site host. CSE will not defame, abuse, harass, stalk, threaten or otherwise violate the legal rights (such as rights of privacy and publicity) of others. CSE will not indicate or suggest that the charging station locations provided as part of the Data are anything other than EV Network charging stations.

7. Notification of Data Correction. In the event that CSE learns that any Data provided to it by Network Service Provider is incorrect, CSE shall promptly inform Network Service Provider

of such fact and, if CSE has corrected such Data, provide Network Service Provider with the corrected version.

8. Exclusion of Warranties. ALL DATA PROVIDED BY NETWORK SERVICE PROVIDER UNDER THIS DATA SHARING AGREEMENT IS PROVIDED "AS IS" AND "AS AVAILABLE" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. CSE'S USE OF THE DATA IS AT ITS SOLE RISK. IN PARTICULAR, BUT WITHOUT LIMITING NETWORK SERVICE PROVIDER'S EXCLUSION OF WARRANTIES HEREUNDER, NETWORK SERVICE PROVIDER DOES NOT REPRESENT OR WARRANT THAT:

(a) CSE'S USE OF THE DATA WILL MEET CSE'S REQUIREMENTS.

9. LIMITATION OF LIABILITY.

9.1 CSE EXPRESSLY UNDERSTANDS AND AGREES THAT NETWORK SERVICE PROVIDER, ITS SUBSIDIARIES AND AFFILIATES, AND NETWORK SERVICE PROVIDER'S LICENSORS AND THEIR SUPPLIERS, WILL NOT BE LIABLE TO CSE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES THAT MAY BE INCURRED BY CSE, HOWEVER CAUSED AND UNDER ANY THEORY OF LIABILITY (INCLUDING, BUT NOT BE LIMITED TO, ANY LOSS OF PROFIT, (WHETHER INCURRED DIRECTLY OR INDIRECTLY), ANY LOSS OF GOODWILL OR BUSINESS REPUTATION, ANY LOSS OF DATA, COST OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES, OR OTHER INTANGIBLE LOSS). HOWEVER, NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED IN THIS DATA SHARING AGREEMENT, NOTHING IN THIS DATA SHARING AGREEMENT WILL EXCLUDE OR LIMIT NETWORK SERVICE PROVIDER'S LIABILITY FOR LOSSES THAT MAY NOT BE LAWFULLY EXCLUDED OR LIMITED BY APPLICABLE LAW. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF CERTAIN WARRANTIES OR CONDITIONS OR THE LIMITATION OR EXCLUSION OF LIABILITY FOR CERTAIN TYPES OF LOSS OR DAMAGES. ACCORDINGLY, ONLY THE LIMITATIONS THAT ARE LAWFUL IN CSE'S JURISDICTION WILL APPLY TO IT; PROVIDED THAT NETWORK SERVICE PROVIDER'S LIABILITY WILL IN ALL EVENTS BE LIMITED TO THE MAXIMUM EXTENT PERMITTED BY LAW.

9.2 THE LIMITATIONS ON NETWORK SERVICE PROVIDER'S LIABILITY TO CSE IN THIS SECTION 9 WILL APPLY WHETHER OR NOT NETWORK SERVICE PROVIDER, ITS SUBSIDIARIES, AFFILIATES, LICENSORS OR THEIR SUPPLIERS HAVE BEEN ADVISED OF OR SHOULD HAVE BEEN AWARE OF THE POSSIBILITY OF ANY SUCH LOSSES OR DAMAGES.

10. Indemnity. CSE hereby agrees to indemnify, defend and hold Network Service Provider, its officers, directors, agents, affiliates, distribution partners, licensors and suppliers harmless from and against any and all claims, actions, proceedings, costs, liabilities, losses and expenses (including, but not limited to, reasonable attorneys' fees) (collectively, "Claims") suffered or incurred by such indemnified parties resulting from or arising out of CSE's actual or alleged use

of the Data. CSE will cooperate as fully as reasonably required in the defense of any claim. At CSE's request, and subject to Network Service Provider's consent, CSE may assume control of the defense of any claim for which Network Service Provider seeks indemnification; provided that, CSE shall not settle any claim without the prior written consent of Network Service Provider.

11. Injunctive Relief. CSE acknowledges that damages for breach of this Agreement may be irreparable; therefore, Network Service Provider is entitled to seek equitable relief, including but not limited to preliminary injunction and injunction, without need of posting bond, in addition to all other remedies.

12. Entire Agreement; Amendments.

12.1 This Data Sharing Agreement, together with all other documents incorporated by reference, if any, shall constitute the entire agreement between Network Service Provider and CSE with respect to the subject matter herein. The execution of these Terms of Service has not been induced by, nor does Network Service Provider or CSE rely upon or regard as material, any representations or writing whatsoever not incorporated herein and made a part hereof.

12.2 These Terms of Service shall not be amended, altered or qualified in any manner whatsoever except in a writing signed by both Network Service Provider and CSE, and any amendment, alteration or qualification hereof shall be null and void and shall not be binding upon any party who has not given its consent as aforesaid.

13. General Legal Terms.

13.1 CSE agrees that if Network Service Provider does not exercise or enforce any legal right or remedy contained in these Terms of Service (or that Network Service Provider has the benefit of under any applicable law), this will not be taken to be a formal waiver of Network Service Provider's rights and that those rights or remedies will still be available to Network Service Provider. Any waiver of any provision of these Terms of Service will be effective only if Network Service Provider expressly states in a signed writing that it is waiving a specified term.

13.2 If any court of law that has jurisdiction rules that any provision of these Terms of Service is invalid, then that provision will be removed from these Terms of Service without affecting the rest of the terms. The remaining provisions of these Terms of Service will continue to be valid and enforceable.

13.3 These Terms of Service may be assigned by Network Service Provider and will inure to the benefit of the Network Service Provider, its successors and assigns.

13.4 These Terms of Service, and Network Service Provider's relationship with CSE under these Terms of Service, will be governed by the laws of the State of California, USA, without regard to its conflict of laws provisions. CSE and Network Service Provider agree to submit to the exclusive jurisdiction of the federal and state courts located in the County of San Diego, to resolve any legal matter arising from this Agreement. Notwithstanding this, Network Service Provider agrees that CSE will be allowed to apply for injunctive remedies (or an equivalent type of urgent legal relief) in any jurisdiction.

13.5 These Terms of Service constitute the whole legal agreement between CSE and Network Service Provider and govern CSE's use of the Data, and completely replace and

supersede any prior agreements between CSE and Network Service Provider, written or oral, in relation to the Data.

13.6 This Agreement may be executed in one or more counterparts, all of which shall constitute the same instrument. Signatures of the undersigned parties transmitted by facsimile or other electronic transmission shall be deemed to be original signatures for all purposes.

[*Signature page to follow.*]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

CENTER FOR SUSTAINABLE ENERGY

By: _____	By: _____
Name: _____	Name: Lawrence E. Goldenhersh
Title: _____	Title: President
Date: _____	Date: _____

Schedule "A"

Data Available Under This Agreement:

There are four (4) required groups of data:

1. **Charging Session Data**: This data contains information gathered from individual Charging Sessions over a given reporting period.

2. **Data Source Inventory Data**: This data contains information about the status and performance of each Data Source as of the end of a particular reporting period.

3. **Smart Home Charger Source Data**: This data contains information about each Data Source.

4. **Smart Home Charging Session Data**: this data contains information gathered from individual Charging Sessions over a given reporting period.

A third group of data, Interval Data, is optional:

5. **Interval Data**: This data contains information gathered from individual Charging Sessions at fifteen (15) minute intervals.

The data must include the required content described in Table 1, Table 2, Table 3, Table 4 and Table 5 hereinbelow depending on which type of charging station Network Service Provider is providing services for.

Data Exchange Method:

The accepted data exchange method is through Secure File Transfer Protocol ("SFTP"). CSE will work with the Network Service Provider to establish automated data transfer from Data Sources. If the Reporting Entity is providing Charging Session Data for multi-unit dwelling and non-residential chargers, then the Reporting Entity shall provide monthly the Charging Session Data, the Data Source Inventory Data, and the Interval Data datasets in three separate "flat files" in .csv format. If the Reporting Entity is providing Charging Session Data for single family residential chargers, then the Reporting Entity shall provide quarterly the Smart Home Charger Source Data and the Smart Home Charging Session Data in two separate "flat files" in .csv. The files shall be delivered to the Program Manager or its designated representatives(s) between the first and tenth day of the calendar month, for each month if data is for multi-unit dwelling and non-residential chargers and the first month of the start of each quarter if for single family residential chargers, and shall contain data including the charging activity associated with each Data Source for the previous calendar month. The files shall be named in a mutually agreeable way that captures the identification of Reporting Entity, the Data Group, and the month and year of the date of submission of the file.

CHARGING SESSION DATA AND SMART HOME CHARGING SESSION DATA CONTENT

The Charging Session Data and the Smart Home Charging Session Data shall contain information that characterizes each individual Charging Session for the Reporting Entity's portfolio of Data Sources. This dataset should include data from Participating Data Sources only.

The Reporting Entity shall report data for a Data Source via SFTP and all Charging Session Data and Smart Home Charging Session Data content shall be presented in a single file. The file shall include all new Charging Session Data following the last record contained in the previous file exchange. The format of this data is at the discretion of the Reporting Entity. The file format includes a single row for each Charging Session, with the column names and format described below. Other formats are not acceptable.

Required Charging Session Data Fields:

The Network Service Provider **for charging stations at multi-unit dwelling and non-residential locations** shall provide Charging Session Data that includes the data content described in *Table 1: Charging Session Data Field List.; Table 2: Interval Data Field List; and Table 3: Data Source Inventory Field List.* A Network Service Provider **for charging stations at single family residential chargers** shall provide Charging Session Data that includes the data content described in *Table 4: Smart Home Charger Source Data Field List; Table 5: Smart Home Charging Session Data Field List.*

Table 1: Charging Session Data Field List

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
Reporting_Entity	Unique identifier for the Reporting Entity, which shall be constant over time. The Reporting Entity may choose its identifier or request that the Program Manager assign one.	String	Required
Data_Source_ID	A unique identifier of the Data Source which is not repeated for any other Data Source in the Network Service Provider's Data Source portfolio, and which is constant over time.	String	Required
Station_ID	This uniquely identifies a charging station (either ID or name). A charging station is the area in the immediate vicinity	Alphanumeric character string with no maximum character count. Reported as type:	Required

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	of a group of chargers and includes the chargers, supporting equipment, parking areas adjacent to the chargers, and lanes for vehicle ingress and egress. Note that a charging station could comprise only part of the property on which it is located. The specified Charging Station ID must be the same unique identifier used to identify the charging station in data made available to third parties in §680.116(c)(1). The station_id attribute corresponds to location_id in OCPI 2.2.1.	String *Example*: LOC1	
Session_ID	This uniquely identifies each charging session. A charging session is a period of time that is initiated when an EV is connected to a charging port (plugged-in) and concludes when the EV is disconnected from the charging port (unplugged). The session_id attribute corresponds to session_id in OCPI 2.2.1.	Alphanumeric character string with no maximum character count. Reported as type: String *Example*: 101 01KOL	Required

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
Port_ID	This uniquely identifies a charging port. A charging port is the system within a charger that charges one electric vehicle ("EV"). A charging port may have multiple connectors, but it can provide power to only one EV through one connector at a time. In cases where there exist more than one (1) charging port on a charger, each charging port must be uniquely identified by a Charging Port ID. This specified Charging Port ID must be the same value used to identify the charging port in data made available to third parties in 680.116(c)(8)(ii). The port_id attribute corresponds to evse_uid in OCPI 2.2.1.	Alphanumeric character string with no maximum character count. Reported as type: String *Example*: 3256 EG98	Required
Time_Zone	The time zone applicable to all timestamps reported.	String	Required
Session_Start	Timestamp (following RFC 3339 in UTC, as shown in OCPI 2.2.1 DateTime Section 16.2) identifying when the charging session (charging session ID)	YYYY-MM-DD HH:mm:ss in UTC Reported as type: DateTime *Example*: 2023-07-03T12:51:48Z	Required

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	became active in the platform of the charging network provider. The session_start data attribute corresponds to start_date_time in Session Object in OCPI 2.2.1. A charging session is considered active when all pre-conditions for a session being accepted and active are met: There has been communication between the EV and charger (e.g., cable was correctly plugged in) and the EV or driver is authorized by the network provider to charge. At this time the EV is being charged (or can be charged) and energy is (or is not) being transferred to the EV.	Unit: UTC	
Session_End	Timestamp (following RFC 3339 in UTC, as shown in OCPI 2.2.2 DateTime Section 16.2) identifying when the charging session (charging session ID) was completed. The session_end data attribute corresponds to end_date_time in Session Object in OCPI 2.2.1.	YYYY-MM-DD HH:mm:ss in UTC Reported as type: DateTime Example: 2023-07-03T12:51:48Z **Unit:** UTC	Required

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	Note that charging might have finished before the session ends (e.g., EV is full but customer must continue to pay for parking spot until session is completed).		
Charging_Start	When power transfer to the vehicle began for the first time, after the related session_start timestamp.	YYYY-MM-DD HH:mm:ss in UTC Reported as type: DateTime Example: 2023-07-03T12:51:48Z **Unit:** UTC	Required
Charging_End	When power transfer to the vehicle ended for the last time before the related session_end timestamp.	YYYY-MM-DD HH:mm:ss in UTC Reported as type: DateTime Example: 2023-07-03T12:51:48Z **Unit:** UTC	Required
Charging_ Duration	The cumulative length of time over which power transfer to a particular EV takes place between session_start and session_end, measured in minutes. Note that Charging_Duration with respect to a	Non-Negative Integer	Required

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	particular EV may not always be equal to the difference between Charging_Start timestamp and Charging_End timestamp, due to charging interruptions.		
Session_Error	Any error codes associated with an unsuccessful charging session. If more than one (1) error code is associated with an unsuccessful charging session, a comma-separated list of all relevant error codes must be given. Specify "None" if there are no errors associated with the charging session. Recommended list of error codes: none (None): No errors associated with the charging session. CX001 (ConnectorLockFailure): Failure to lock or unlock connector on the vehicle side. CX002 (GroundFailure): Ground fault circuit interrupter has been activated. CX003 (HighTemperature): High temperature inside the EVSE is	Alphanumeric character string with no maximum character count. Reported as type: String Example: {CX020} {CX009, CX013} {CX025, other} {other} {none}	Required

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	derating power delivery. CX004 (OverCurrentFailure): Over current protection device has tripped. CX005 (OverVoltage): Input voltage to the vehicle has risen above an acceptable level. CX006 (UnderVoltage): Input voltage to the vehicle has dropped below an acceptable level. CX007 (WeakSignal): Wireless communication device reported a weak signal. CX008 (EmergencyStop): Emergency stop is pressed by the user (required if equipped). CX009 (AuthorizationTimeout): The user plugs in but fails to authorize a charging session prior to the connection timeout between the vehicle and EVSE. CX010 (InvalidVehicleMode): The vehicle is in an invalid mode for		

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	charging. CX011 (CableCheckFailure): Failure during the cable check phase. Includes isolation failure. CX012 (PreChargeFailure): The EVSE did not reach the correct pre-charge voltage. CX013 (NoInternet): The EVSE has no internet connectivity. CX014 (PilotFault): The control pilot voltage is out of range. CX015 (PowerLoss): The EVSE is unable to supply any power due to mains failure. CX016 (EVContactorFault): Contactors fail to open or close on the vehicle side. May also include welding related errors. CX017 (EVSEContactorFault): Contactors fail to open or close on EVSE's side. May also include welding related errors. CX018 (CableOverTempDerate): Temperature of charging cable or		

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	connector assembly is too high, resulting in reduced power operation. CX019 (CableOverTempStop): Temperature of charging cable or connector assembly is too high, resulting in a stopped charging session. CX020 (PartialInsertion): Cable latch is raised due to incomplete insertion into the vehicle charging port. CX021 (CapacitanceFault): An Isolation Monitoring Device tripped due to high capacitance during active charging. CX022 (ResistanceFault): An Isolation Monitoring Device tripped due to low resistance to the chassis during active charging. CX023 (ProximityFault): The proximity voltage is out of range. CX024 (ConnectorVoltageHigh): The output voltage of EVSE is		

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	high before charging starts or after charging ends. CX025 (BrokenLatch): The latch on the connector is broken. CX026 (CutCable): The output cable has been severed from the EVSE. other (Other): Any other errors not specified above. Additional description must be provided in session error description. More information on recommended error codes can be found in "Recommendations for Minimum Required Error Codes for Electric Vehicle Charging Infrastructure" and "Implementation Guide for Minimum Required Error Codes in Electric Vehicle Charging Infrastructure" by ChargeX Consortium (https://inl.gov/chargex/).		
error_other	The description for any other error codes associated with an unsuccessful charging session that are not	Alphanumeric character string with **no maximum character count**.	Required

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	categorized in the recommended error codes in session_error (i.e., "other" was selected for session_error). If multiple errors need to be defined, they should be given by a comma-separated list.	Reported as type: **String** *Example:* {error description 1} {error description 1, error description 2}	
energy_kwh	Amount of energy (in kilowatt-hours) dispensed by the port (port ID) during the charging session (session ID). Energy charged corresponds to the attribute ENERGY_IMPORT defined in the CdrDimensionType object in OCPI 2.2.1. Specify value as **none for a session that was not successfu**l-i.e., no energy was dispensed, and a non-empty value of session error is associated with this charging session.	Numeric value **greater than zero** for any successful charging specified to at least two (2) decimal places Reported as type: **Decimal (7,2)** *Example*: 52.31 none **Unit:** kWh	Required
power_kw	Maximum power (in kilowatts) dispensed by the port (port ID) during charging session (session ID). Peak power corresponds to the MAX_POWER attribute defined in the	Numeric value **greater than zero** for any successful charging specified to at least two (2) decimal places Reported as type: **Decimal (7,2)** *Example*: 120.43	Required

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	CdrDimensionType object in OCPI 2.2.1. Specify value as **"none" for a session that was not successful-**i.e., no energy was dispensed, and a non-empty value of session error is associated with this charging session.	None **Unit:** kW	
Fee	The amount due from the EV driver, in USD. If fees may apply at the Data Source, but the EV driver did not owe a fee (due to network membership or another factor), the Fee should be represented as zero. Suggested Format Detail: If no fees apply under any circumstances at the Data Source (for a personal-use or otherwise "free charger"), the Fee should be <NULL>.	Decimal Number (A positive value shows payment due from the EV driver.)	Required
Payment_Method	Method(s) of payment used to complete the charging session (session ID). If more than one (1) payment method is associated with a charging session, a comma-separated list of all relevant payment	Alphanumeric character string with **no maximum character count.** Reported as type: **String** *Example*: {membership}	Required

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	methods must be given. Recommended list of payment methods: **none**: Successful or unsuccessful charging session with no payment received **membership**: Payment by membership account and/or membership card **credit_card_terminal** : Payment via credit card or debit card terminal **phone_online**: Payment through mobile app, website, automated phone number or messaging system **plug_charge**: Payment via ISO 15118 Plug and Charge **roaming**: Payment via roaming partners **other**: Any other payment method not specified above. Additional description should be provided in Payment Method Description.	{credit_card_terminal, phone_online} {other} {none}	
payment_other	The description for any method(s) of payment used to complete the charging	Alphanumeric character string with	Required

Field Name	Charging Session Data Content Description	Accepted Data Format	Content Required
	session that are not categorized in the recommended payment methods in payment_method (i.e., "other" was selected for payment_method). If multiple payments need to be defined, they should be given by a comma-separated list.	**no maximum character count.** Reported as type: **String** *Example*: {cash} {cash, transit card}	
Optional Fields			
[Additional fields]	Data fields other than the ones described herein, such as peak Charging Session power, are welcome and may be provided at the Reporting Entity's discretion.		Optional

Interval Data

Interval Data is optional. Interval Data shall be submitted in monthly flat file in .csv format and in a third file.

Table 2: Interval Data Field List

Field Name	Interval Data Content Description	Accepted Data Format	Content Required
Data_Source_ID	A unique identifier of the Data Source which is not repeated for any other Data Source in the Network Service Provider's Data Source portfolio, and which is constant over time.	String	Optional
Port_ID	This uniquely identifies a charging port. A charging port is the system within a charger that charges one electric vehicle (EV). A charging port may have multiple connectors, but it can provide power to only one EV through one connector at a time. In cases where there exist more than one (1) charging port on a charger, each charging port must be uniquely identified by a Charging Port ID. This specified Charging Port ID must be the same value used to identify the charging port in data made available to third parties in 680.116(c)(8)(ii). The port_id attribute corresponds to evse_uid in OCPI 2.2.1.	Alphanumeric character string with no maximum character count. Reported as type: String *Example*: 3256 EG98	Optional
Session_ID	This uniquely identifies each charging session. A charging session is a period of time that is initiated when an EV is connected to a charging port (plugged-in) and concludes when the EV is disconnected from the charging port (unplugged). The session_id attribute corresponds to session_id in OCPI 2.2.1.	Alphanumeric character string with no maximum character count. Reported as type: String *Example*: 101 01KOL	Optional

Interval_Start	The beginning of the 15-minute interval. All Interval_Start timestamps should align with natural time increments with mm:ss corresponding to exactly 00:00, 15:00, 30:00, or 45:00.	Date/Time	Optional
Interval_End	The end of the 15-minute interval. All Interval_End timestamps should align with natural time increments with mm:ss corresponding to exactly 00:00, 15:00, 30:00, or 45:00.	Date/Time	Optional
Interval_kWh	Decimal number representing the electricity delivered (in kWh, to two decimal places) in the 15-minute interval.	Decimal Number	Optional

Data Source Inventory Content

The Data Source Inventory contains information about the portfolio of Data Sources that a particular Reporting Entity manages.

To be eligible for inclusion in the Program, a Network Service Provider must provide the data content detailed in Table 3: Data Source Inventory Field List.

Many of the fields in Table 3 shall be collected at the time a new Data Source is commissioned and will remain constant over time. From time to time, the NJDEP may provide updates or add additional fields. Such additions will be made after consultation with, and notice to, all pre-approved vendors.

Scope, Updates, and Persistence:

Fields in the Data Source Inventory should be updated for Participating Data Sources only. Data Sources that are no longer Participating Data Sources will be marked as "Inactive" and their Data Source Inventory data will not otherwise be updated, though it must continue to be reported.

Once a Participating Data Source is correctly included on the Data Source Inventory, it shall not be removed from the Data Source Inventory although its Operating_Status indicator may change. Thus, even if a Data Source no longer exists in the real world, or is no longer a Participating Data Source, a record of its existence will be preserved in the Data Source Inventory with an "Inactive" status indicator.

Format:

The Data Source Inventory shall be provided in a single file, separate from the Charging Session Data. The format of the file should be .csv, with fields in the order noted in Table 3. Each field in the file format represents parameters about the Data Source and Port. Each row in the file format represents a single instance of an outage event for a given charging port (Port_ID). In the case that there are no outage events on a Port, the row represents a single Port ID with null information

in its Outage_Id, and Outage_Duration fields, and a value of zero for its Outage_Count field.

Table 3: Data Source Inventory Field List

Field Name	Data Source Inventory Content Description	Accepted Data Format	Content Required
Station_ID	This uniquely identifies a charging station (either ID or name). A charging station is the area in the immediate vicinity of a group of chargers and includes the chargers, supporting equipment, parking areas adjacent to the chargers, and lanes for vehicle ingress and egress. Note that a charging station could comprise only part of the property on which it is located. The specified Charging Station ID must be the same unique identifier used to identify the charging station in data made available to third parties in §680.116(c)(1). The station_id attribute corresponds to location_id in OCPI 2.2.1.	Alphanumeric character string with no maximum character count. Reported as type: String *Example*: LOC1	Required
Port_ID	This uniquely identifies a charging port. A charging port is the system within a charger that charges one electric vehicle (EV). A charging port may have multiple connectors, but it can provide power to only one EV through one connector at a time. In cases where there exist more than one (1) charging port on a charger, each charging port must be uniquely identified by a Charging Port ID. This specified Charging Port ID must be the same value used to identify the charging port in data made available to third parties in 680.116(c)(8)(ii). The port_id attribute corresponds to evse_uid in OCPI 2.2.1.	Alphanumeric character string with no maximum character count. Reported as type: String *Example*: 3256 EG98	Required
Reporting_ Entity	Unique identifier for the Reporting Entity, which shall be constant over time. The Reporting Entity may choose its identifier or request that the Program	String	Required

Field Name	Data Source Inventory Content Description	Accepted Data Format	Content Required
	Manager assign one.		
Data_ Source_ID	Unique identifier of the Data Source which is not repeated for any other Data Source in the Network Service Provider's Data Source portfolio, and which is constant over time.	String	Required
Last_ Verified	The most recent time at which the Data Source data was verified and current. Typically, this should correspond to the end of the reporting period.	Date/Time	Required
Model_ Number	The model number of the Data Source equipment, where applicable.	String	Required
Source_ Type	The type of Data Source supporting the charging transaction.	String "Chrgr-L2", "Chrgr-DCFC", "Vehicle", or "Telematic"	Optional
Port_Count	The number of simultaneously operable ports provided by the Data Source, where applicable.	Positive Integer	Required
Port_Power	The power provided by each port associated with the Data Source, in kW (to at least one decimal place), when all ports are simultaneously in use, where applicable.	Positive Decimal Number	Optional
Site_Name	A name for the location where charging is taking place, typically the host name for charging locations.	String	Required
Address	Site street address	String	Required
City	Site city	String	Required
State	Site state	String	Optional
ZIP	Site ZIP code	ZIP Code	Required

Field Name	Data Source Inventory Content Description	Accepted Data Format	Content Required
County	Site County	String	Optional
Owner	The name of the entity that owns the Data Source.	String	Optional
Service_ Type	Differentiates between charging served by a dedicated utility service and charging that shares a utility service with other loads ("behind-the-meter")	String "DEDICATED" or "BTM"	Optional
Utility	The electric utility supplying service	String "PS", "AC", "JC", "OR", and "OT" (for "other")	Required
Utility _Account	The utility account number for the service providing power to the Data Source, where applicable.	String	Optional
Site_Type	The setting of the Site (e.g. single family, residential, hotel, public, etc.)	String "S" = single family residential "M" = multi-family residential "W" = workplace "F" = fleet "P" = Public "H" = Hotel, and "O" = Other	Optional
Commission_ Date	The first day after installation in which the Data Source is fully operable and accessible for its intended purpose and is transmitting any data to the Network Service Provider.	Date/Time	Required
Operating_ Status	The Operating Status of the Data Source at the Last_Verified timestamp.	String "ACTIVE" or "INACTIVE"	Required

Field Name	Data Source Inventory Content Description	Accepted Data Format	Content Required
Uptime_Reporting_Start	Timestamp (following RFC 3339 in UTC, as shown in OCPI 2.2.2 DateTime Section 16.2) identifying the start date of the reporting period for port uptime, total outage, and total excluded outage.	Reported as type: DateTime *Example*: 2023-07-03T12:51:48Z Unit: UTC	Required
Uptime_Reporting_End	Timestamp (following RFC 3339 in UTC, as shown in OCPI 2.2.2 DateTime Section 16.2) identifying the end date of the reporting period for port uptime, total outage, and total excluded outage.	YYYY-MM-DD HH:mm:ss in UTC Reported as type: DateTime *Example*: 2023-07-03T12:51:48Z Unit: UTC	Required
Uptime	The uptime of a port (port ID) is the time over the previous twelve (12) months when a charger's hardware and software are both online and available for use, or in use, and the charging port successfully dispenses electricity in accordance with requirements for minimum power level. 23 CFR 680.112 and 23 CFR 680.116(b) requires that port uptime be calculated on a monthly basis for the previous twelve months, in accordance with the equation in 23 CFR 680.116(b)(3) for each month of the reporting period: $\mu = ((525{,}600 - (T_{outage} - T_{excluded})) / 525{,}600) \times 100$ Where: μ = port uptime percentage for a given port ID T_{outage} = total minutes of outage for the port ID in previous year $T_{excluded}$ = total minutes of outage for the port ID in previous year for reasons	Numeric value equal to or greater than zero and equal to or less than 100 and specified to at least two (2) decimal places Reported as type: Decimal (5, 2) *Example*: 98.23 0.00 100.00 Unit: Percentage	Required

Field Name	Data Source Inventory Content Description	Accepted Data Format	Content Required
	outside the charging station operator's control. Reasons for outage outside the charging station operator's control provided that the charging station operator can demonstrate that the charging port would otherwise be operational may include but are not limited to: electric utility service interruptions; failure to charge or meet the EV charging customer's expectation for power delivery due to the fault of the vehicle; scheduled maintenance; vandalism; or natural disasters. Also excluded are hours outside of the identified hours of operation of the charging station. Port uptime must be calculated as a rolling, annual percentage according to the above formula that is updated each month.		
Total_power	The total maximum power output rating of the Data Source in kW (to at least one decimal place), when the maximum number of ports are in use, where applicable.	Positive Decimal Number	Required
Total_Outage	The total time (in minutes) over the previous 12 months during which the charging port (port ID) did not successfully dispense electricity as expected. This corresponds to the T_outage value in port uptime formula in 23 CFR 680.116(b).	Numeric value equal to or greater than zero and specified to at least two (2) decimal places Reported as type: Decimal (6,2) *Example*: 50.25 0.00 8760.00 Unit: Minutes	Required
total_outage_excl	The total time (in minutes) over the previous twelve (12) months during which the charging port (port ID) did not	Numeric value equal to or greater than zero	Required

Field Name	Data Source Inventory Content Description	Accepted Data Format	Content Required
	successfully dispense electricity as expected for reasons outside the charging station operator's control, provided that the charging station operator can demonstrate that the charging port would otherwise be operational: electric utility service interruptions, failure to charge or meet the EV charging customer's expectation for power delivery due to the fault of the vehicle, scheduled maintenance, vandalism, or natural disasters. Also excluded are hours outside of the identified hours of operation of the charging station. This corresponds to the T_excluded value in port uptime formula in 23 CFR 680.116(b). Charging station operators should be able to demonstrate that the charging port would otherwise be operational.	and specified to at least two (2) decimal places Reported as type: Decimal (6,2) *Example*: 50.25 0.00 8760.00 Unit: Minutes	
Outage_Id	Timestamp uniquely identifying a single instance of an outage for a given charging port (port ID). An outage is any period of time during which a charging port cannot successfully dispense electricity as expected. Outages must be identified regardless of whether their occurrence is for reasons outside of the control of the charging station operator (see outage and excluded outage data attributes for details). The outage_id should follow RFC 3339 in UTC, as shown in OCPI 2.2.1 DateTime type.	YYYY-MM-DD HH:mm:ss in UTC datetime Reported as type: DateTime *Example*: 2023-07-03T12:51:48Z Unit: UTC	Required
Outage_ Duration	Length of time (in minutes) during which the charging port (port ID) could not successfully dispense electricity as expected. Outage duration must be reported for each outage instance (outage ID) and measure the duration of the entire outage, starting from initial disruption in electricity being dispensed as expected to	Numeric value greater than zero and specified to at least one (1) decimal place Reported as type: Decimal (8,2)	Required

Field Name	Data Source Inventory Content Description	Accepted Data Format	Content Required
	when charging port is able to dispense electricity again successfully.	*Example*: 120.55 Unit: Minute	
Outage_ Count	The number of Outages recorded by the Data Source during the reporting period.	Non-Negative Integer or <NULL> if not known	Optional
[Additional fields]	Additional fields are welcome and may be provided at the discretion of the Reporting Entity.	Multiple	Optional

Table 4: Smart Home Charger Source Data Field List

Field Name	Description	Accepted Data Format	Content Required
evse_id	A unique serial number, from the manufacturer, of the Data Source (Charging Equipment) installed at a given home	Alphanumeric	Required
street_address	The physical street address where charger is located	String	Required
city	The name of the city where charger is located	String	Required
state	The state where charger is located (2 Character state abbreviation)	String	Required
zip_code	The 5 digits zip-code where charger is located	String	Required
evse_manufacturer	The name of the EVSE equipment manufacturer	String	Required

evse_model	The name of the make/model of the charging equipment to be installed	String	Required
evse_maximum_kw	The maximum output in kW produced by the EVSE	Numeric	Required
connector_type	The charging connector type	String	Required

Table 5: Smart Home Charging Session Data Field List

Field Name	Description	Accepted Data Format	Content Required
session_id	Unique identifier for the charging session	Alphanumeric	Required
evse_id	A unique serial number, from the manufacturer, of the Charging Equipment installed at a given home	Alphanumeric	Required
charge_session_start	The start time of the charging session	YYYY-MM-DD HH:mm:ss in UTC Reported as type: DateTime	Required
charge_session_end	The end time of charging session	YYYY-MM-DD HH:mm:ss in UTC Reported as type: DateTime	Required
charge_duration	The length of time when energy is transmitted to the vehicle measured in seconds	Integer	Required
connection_duration	The length of the connection time measured in seconds (Connection duration = Charge Duration + Idle Duration)	Integer	Required
idle_duration	The length of idle time measured in seconds	Integer	Required

energy_consumption_kwh	The amount of energy consumed during the charging session measured in kWh	Numeric	Required
charge_peak_demand_kw	The peak charge demand during the charging session measured in kW	Numeric	Required
offline_event_start	The start time of an unplanned charging session interruption	YYYY-MM-DD HH:mm:ss in UTC Reported as type: DateTime	Optional
offline_event_end	The end time of an unplanned charging session interruption	YYYY-MM-DD HH:mm:ss in UTC Reported as type: DateTime	Optional

Definitions:

Charging Session: A charging occurrence for a single EV, during which a certain amount of energy is transmitted to the EV, measured in duration according to the time of the EV's physical plug-in to the EVSE to the time of the EV's physical plug-out from the EVSE. All events between the physical plug-in and physical plug-out are considered part of the same Charging Session, regardless of any interruptions or restarts that may take place within that period.

Data Source: An EVSE or other technology that records EV Charging Session data.

Data Source Owner: The entity that owns the physical Data Source.

Date/Time: A string field with the preferred format: YYYY-MM-DD HH:mm:ss in UTC (Coordinated Universal Time).YYYYMMDD hh:mm:ss [+/-hh:mm] using a 24-hour clock. The time in brackets represents the difference from coordinated universal time.

Decimal Number: A numeric field that may contain up to seven significant digits. Integer: A specific numeric field which may only contain whole numbers.

Interval Data: Data that uses timestamps that align with natural time increments (i.e., at the beginning of the hour, or 15, 30, or 45 minutes thereafter) in the same time zone reported in the Session Data. Each 15-minute interval will be associated with a real number representing

electricity delivered to vehicles (in kilowatt-hours, to at least two decimal places) in that interval. Interval data must be clearly linked to a single Data Source and ideally should be linked to a particular Port and Charging Session.

Network Service Provider A business that provides electric vehicle charging network services which include collection of EV charging data.

Operating Status (ACTIVE/INACTIVE): A Participating Data Source is ACTIVE when it is operable by the intended user, it is associated with a network service that is capable of data collection and reporting to meet this specification, and the Data Source Owner is in good standing with that network service. A given Participating Data Source may shift between ACTIVE and INACTIVE status multiple times, as dictated by that Data Source's performance history. The status of the Data Source on the last day of the reporting period shall be used as the basis for determining whether the Data Source is ACTIVE or INACTIVE. Note that Operating Status is distinct from Outage status, i.e., a device may experience any quantity or duration of Outages while remaining ACTIVE. If a Data Source ceases to qualify as a Participating Data Source, its Operating Status shall be INACTIVE.

Outage: Any period in which one or more ports of an EVSE is incapable of delivering its normal rated energy capacity to an appropriately authorized EV, other than periods in which the Data Source Owner may choose to make the EVSE unavailable for use.

Participating Data Source: A Data Source whose owner has granted written consent to the Reporting Entity to have the relevant data accessed for purposes of providing it to the Program.

Port: A connection capable of transmitting energy to a vehicle. For the purposes of this standard, the total number of ports associated with a Data Source shall be equal to the number of simultaneously operable ports that the Data Source can provide.

Program: The Pre-Qualified Network Service Provider list and associated data requirements maintained by the New Jersey Department of Environmental Protection and the New Jersey Board of Public Utilities. Certain grant and incentive programs managed by the New Jersey Department of Environmental Protection and New Jersey Board of Public Utilities, or their contractors will require grantees to select an appropriate, hardware-compatible network plan from a Pre-Qualified Network Service Provider on this list.

Program Manager: NJDEP staff, NJBPU staff, or a consultant hired by NJDEP or NJBPU (such as CSE), responsible for the Program's operations, including receiving and processing the data received from the Reporting Entity.

Reporting Entity: The entity that provides the data derived from Data Source(s) to the Program Manager. In most cases, this entity will be a Network Service Provider. However, the Reporting Entity may also be another party that is able to meet the Requirements.

Site: The physical location where vehicle charging occurs.

String: A text field of letters, numbers, punctuation, and symbols. Empty string fields are <NULL>.

Zip Code: A valid five-digit US ZIP code.

Schedule "B"

Overview and Purpose:

This data specification defines the minimum requirements for a Network Service Provider's inclusion in the list of Pre-Qualified Network Service Providers for electric vehicle charging grants funded through the New Jersey Department of Environmental Protection ("NJDEP") or the New Jersey Board of Public Utilities ("NJBPU"). In the future, Network Service Provider receiving NJBPU or NJDEP grant funds for electric vehicle supply equipment ("EVSE") subject to data reporting requirements will be required to procure appropriate network services from one of the Network Service Providers on the list of Pre-Qualified Network Service Providers. These specifications are intended to closely align with the specifications required by utility EVSE incentive programs.

Network Service Providers that meet the requirements described herein will be eligible for inclusion in the Program. NJDEP will publish and update from time to time a list of participating Network Service Providers on its website.

As part of the terms of participation in the Program between Network Service Provider and NJBPU and NJDEP, CSE (acting as an authorized partner of NJBPU and NJDEP, and at the direction of NJBPU and NJDEP) provides the following services to NJBPU and NJDEP: (a) acting as a single service provider to vet Network Service Providers for compliance with NJBPU and NJDEP data sharing requirements; and (b) aggregating compliant Network Service Provider charging data across state-managed EV charging incentive programs, including the deployment of National Electric Vehicle Infrastructure ("NEVI") funding.

Eligibility:

To maintain compliance with the Program, a Network Service Provider must certify that it will meet the requirements and agree to provide the data from the Participating Data Sources to CSE at no cost.

To remain eligible for inclusion in the Program, a Network Service Provider must work in good faith with CSE to establish and maintain data transfer on terms that are mutually acceptable and as listed in Schedule "A" to this Agreement.

Compliance:

In collaboration with CSE, NJBPU and NJDEP reserve the right to determine that a Network Service Provider is noncompliant with the requirements and to remove noncompliant Network Service Providers from the Program.