

# EVSE Functional Requirements

Version 0.9a

M E R C U R Y  
C O N S O R T I U M



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# ABBREVIATIONS

AC	Alternating Current
DER	Distributed Energy Resource
DER-M	DER Manager
DST	Daylight Savings Time
EV	Electric Vehicle
EVSE	Electrical Vehicle Supply Equipment
HEMS	Home Energy Management System
MID	Measuring Instruments Directive
NTP	Network Time Protocol
OCPP	Open Charge Point Protocol
OEM	Original Equipment Manufacturer
PV	Photovoltaics
PWM	Pulse Width Modulation
TSO	Transmission System Operator
UL	Underwriters Laboratories
UTC	Coordinated Universal Time

In this document the following phrases have meanings thus:

- **Shall:** Mean that the definition is an absolute requirement of the specification.
- **MAY:** Mean that an item is truly optional.
- **Shall NOT:** Mean that the definition is an absolute prohibition of the specification.

# 1 INTRODUCTION

This specification sets out the functional requirements that Electric Vehicle Supply Equipment (EVSE) must meet to achieve Mercury certification. Designed to accommodate a wide range of control scenarios and Distributed Energy Resource (DER) configurations, these requirements are rooted in real-world use cases drawn from diverse market contexts.

Developed by the Mercury Consortium under formal governance, the specification reflects collaboration across manufacturers, DER Manager (DER-M), grid operators, and flexibility market designers. It represents a common technical foundation for interoperable, certifiable EVSE integration into energy systems.

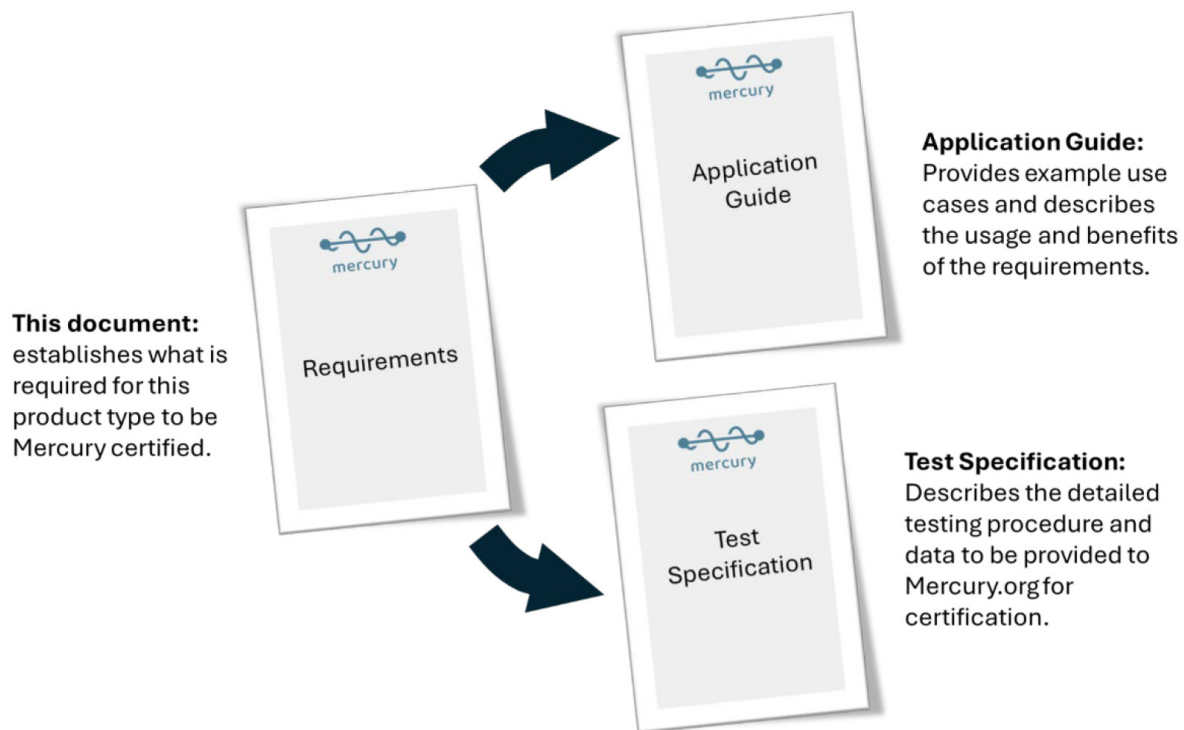
This document forms part of an integrated suite that includes:

- **EVSE-001-2025-REQ** – Present requirements specification
- **EVSE-001-2025-TST** – Test procedure, detailing how compliance is verified
- **EVSE-001-2025-APG** – Application guide [1], offering context, implementation examples, and forward guidance.

The application guide supports a wide range of stakeholders and also captures the market analysis underpinning the Mercury tiers, along with the roadmap for upcoming deployment phases







**Figure 1.** Three Mercury documents

**Note:** At the time of publication, the accompanying test procedure (EVSE-001-2025-TST) is pending finalisation. It will be published as a separate document, with cross-referenced clauses aligning to the present specification.

## 1.1 Functional Role of EVSE in Flexibility Service Participation

The accelerating uptake of electric vehicles (EVs) is reshaping energy systems globally, introducing both opportunities and challenges for the energy system. EV uptake is rapidly increasing around the world, driven by global automotive industry technology trends, operating cost efficiencies, consumer environmental awareness, and government and business emissions and transport policies. With the rising adoption of EVs, the demand for electricity is expected to increase substantially, adding new and relatively complex loads to distribution and transmission networks.

EV charging loads are natively controllable either via connected chargers, or via the car Original Equipment Manufacturers (OEMs) back-end systems. They have a high intrinsic degree of flexibility which is valuable in both power system planning and operation as well as energy trading optimization. They can be used to store excess renewable electricity generation, optimize the utilization of electrical grids, contribute to improved efficiencies for both energy

producers and network operators, resulting in more advantageous prices for all electricity consumers. In few years, the upcoming bidirectional EVs will also export stored energy into the grid, mitigating local network congestion and bulk electricity supply shortfalls.

The EV charging, managed from a local and from a system perspective, places EVSE at the center of a smart energy ecosystem. In fact, the EVSEs control the charging and discharging process of an EV battery based on user e-mobility needs, price signals, and a dynamic set of opportunities and constraints at both local and system levels. Smart EV charging controlled by a DER-M, whose role can be taken by an aggregator, a Charge Point Operator (CPO), a utility, an OEM, a Home Energy Management System (HEMS) provider; the DER-M can reduce the cost for the user, contribute to home load balancing, consume solar Photovoltaics (PV) production, respond to demand-side flexibility programs, optimize Utilities' trading positions on energy markets, deliver balancing services to the grids.

Thanks to their test and certification by third party laboratories, Mercury EVSEs will:

- Enable simple use cases and protect consumers from lock-ins with fallback functionalities to avoid stranded assets;
- Qualify natively to a range of energy flexibility, grid balancing and congestion services, demand response programs around the world;
- Allow OEMs to reduce their R&D localization budget as well as the DER-M and service providers to limit the variability of integration and operation costs;
- Help utilities create new pricing offers and incentivize consumers with demand response programs relying on certified assets performance and functionalities;
- Unlock the participation of residential DERs in ancillary and local congestion services based on harmonized and simplified rules built in cooperation with balancing authorities, system operators and regulators.

The objectives of the EVSE functional requirements presented in this document are the:

- Introduction of the Mercury certification tiers and their performance characteristics, which apply to all Mercury DERs, including EVSEs
- Specification of EVSE functional behaviors to be Mercury certified

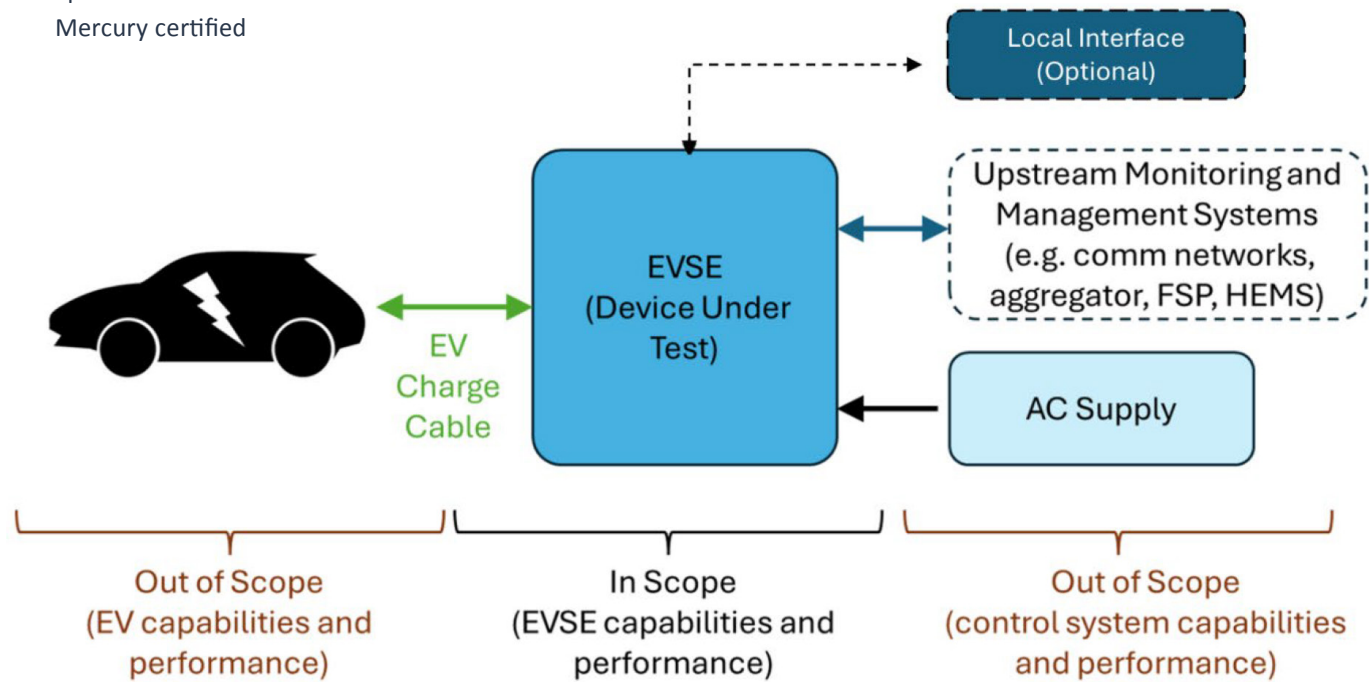
- Description of the application, for the identified functional behaviors, to the specified open standard communication protocols

## 1.2 Scope

In the process of developing these EVSE requirements, it was recognized that many functionalities, both consumer-facing and utility-facing, may be possible in complete EV charging systems, potentially including cloud systems, additional in-home equipment, and consumer phone applications. This Mercury specification, detailing only the EVSE requirements, does not require such system level functionalities but may be integrated with them.

Among the possible features of EVSEs, Mercury functional compliance applies to a limited set of functionalities, as detailed in the following sub-chapters. These functionalities constitute the needed features for the EVSE in order to support energy flexibility mechanisms, participate in demand-response programs and satisfy customer requirements.

Specifically, the functionalities correspond to data exchanges (for static data, measurements and commands) that are received and communicated from/to the EVSE.



**Figure 2.** Scope of this Specification

# 2 MERCURY CERTIFICATION TIERS

To be Mercury certified, a DER shall meet certain minimum performance characteristics. As described in the Application Guide, three tiers are defined that reflect the requirements of various groups of ancillary services, energy markets and demand response programs redefined at the DER level, taking into account custom DER management or aggregation platform latencies.

Table 1. Requirements for the Mercury Certification Tiers

REQUIREMENT	DEFINITION	MERCURY LEVEL 1	MERCURY LEVEL 2	MERCURY LEVEL 3
Response time	The time elapsed from when a command is received (or an event is triggered) to initiate a power change, to when the first updated meter data is sent back to the DER-M reflecting a measurable change in power.	<3 seconds	<20 seconds	<60 seconds
Telemetry time interval	Minimum time interval between consecutive telemetry data transmissions	<1 second	<1 second	<120 seconds
Meter accuracy	Metering data accuracy	2%	2%	2%

The Application Guide EVSE-001-2025-APG contains more background information on the Certification Tiers and the research done to cluster the flexibility market requirements by tier, across multiple geographies in the US, UK, Europe and Asia.

The requirements for each Certification Tier are defined in Table 1. Note that meter accuracy can be measured in testing, or proven to the test house by suitable Measuring Instruments Directive (MID) or Underwriters Laboratories (UL) certification documentation.

# 3 FUNCTIONAL REQUIREMENTS

The EVSE functional requirements are described in four parts, in Clause 3.1 through 3.3:

- **Static Information:** Fixed or infrequently changing information that can be read from an EVSE including nameplate (e.g. OEM name, model) and installation related (e.g. installed current/power rating, grid type etc.) information
- **Monitoring Information:** Time-varying information that can be read from an EVSE indicating present status (e.g. charging status, current level)
- **Control Functions:** the mechanisms through which the EVSE behavior is managed.

The Mercury data requirements will be mapped onto various protocols. Numeric fields will use the units and representation specified by the implementing protocol. However, if the protocol is ambiguous or specifies multiple ways to represent data, the Mercury choice of representation shall be used to maximise interoperability.

## 3.1 Static Information

The EVSE shall support the readability of the Static information specified in Table 2 through the communication interface specified in Clause 4 of this document. These parameters are set in the factory and/or at the time of installation and represent the device as-installed; some parameters are subject to infrequent change (e.g., the firmware version).

## 3.2 Monitoring Information

The EVSE shall support reporting of the monitoring information specified in Table 3 through the communication interface specified in Clause 2.4 of this document. Monitoring information parameters are dynamic values, indicative of the present state of the EVSE.



**Table 2.** Static information

PARAMETER	TYPE	DESCRIPTION
OEM Name	String	A unique identifier of the brand/make of the EVSE. Format to be defined by the standard communication protocol specified.
Model	String	An identifier of the Model name/number of the EVSE. Format to be defined by the standard communication protocol specified.
Serial Number	String	The identifier of the EVSE device. Format to be defined by the OEM vendor. The combination of Manufacturer-Model-Serial shall be globally unique, and it is the OEM's responsibility to ensure this.
Firmware Version	String	A unique identifier of the firmware version of the EVSE software. Format to be defined by the standard communication protocol specified.
Maximum Charging Current	Number	Maximum for the EVSE, as installed, for current (amps) flowing to the vehicle for charging. The parameter is a single value, equal for all the phases. Units and format to be defined by the standard communication protocol specified.
Grid Type	Enum	Grounding system of the grid to which the EVSE is connected. The parameter can assume the following values: TT, TN, IT.
Mercury Version	String	Note that this might change with a firmware update
Maximum Charging Current	Number	Maximum for the EVSE, as installed, for current (amps) flowing to the vehicle for charging. The parameter is a single value, equal for all the phases. Units and format to be defined by the standard communication protocol specified.
Installed Phases	Set	Set of L1, L2, L3. Indicates which phases are installed. A 3-phase installation would be represented as {L1, L2, L3} and so on. This is a superset of in-use phases, which is a monitoring attribute.

**Table 3.** Monitoring information

PARAMETER	TYPE	DESCRIPTION
Actual Charging Current	Number	The present charging level, related to the current (Amps) flowing to the vehicle and with separate values for each phase. Format to be defined by the standard communication protocol specified.
Actual Charging Power	Number	The present charging level, related to the power (Watts) flowing to the vehicle . Format to be defined by the standard communication protocol specified.
Energy Delivered in the Session	Number	The cumulative energy (e.g. Watt-hours) delivered to EVs by this EVSE.
Local Override Status	Boolean	Consumer has / has-not overridden grid-service oriented control actions of the EVSE during or prior to the present charging session. Must reset at the end of the charging session such that the EVSE is available for the next DER-M control event.
Voltage Level	Number	The present voltage level, with separate values for each phase.
Charging State	Enum	The parameters reflect the interaction with the EV and the status of charging session. The available parameters are: <ul style="list-style-type: none"> <li>• Disconnected</li> <li>• Connected and Charging</li> <li>• Connected and Not Charging</li> <li>• Error</li> </ul>
In Use Phases	Set	Phase arrangement in use right now. Subset of Installed Phases. A 3-phase EVSE connected to a 1-phase EV would be represented as {L1}, {L2}, or {L3}. 3-phase charging would be represented as {L1, L2, L3}.



### 3.2.1 Monitoring Methodology

All monitoring information identified in Table 3 other than the Connected State and Local Override Status shall be supported by a recurring push from the EVSE to the upstream monitoring and management system. The push interval shall be configurable as specified in Clause 3.2.2. The recurring push shall occur at all times that a charging session is active and shall not occur when there is not an active session.

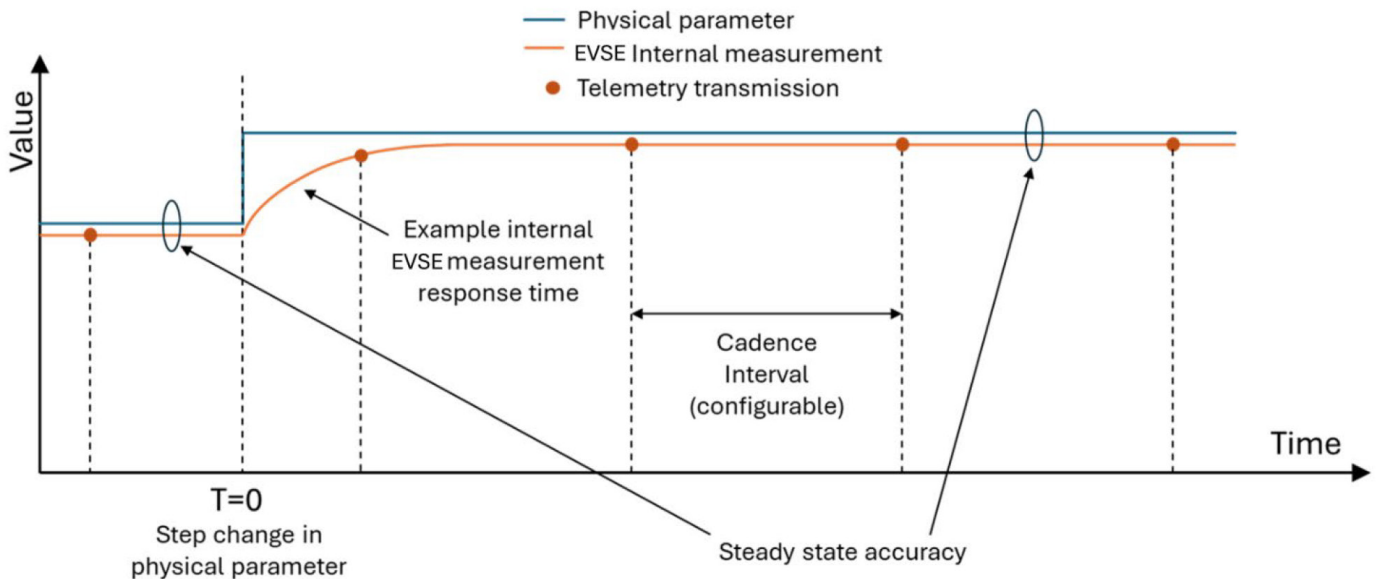
Connected State and Local Override Status shall be supported by unsolicited notification sent from the EVSE to the upstream monitoring and management system upon any change of state. This notification message shall meet the performance requirements identified in Clause 3.2.2.

### 3.2.2 Monitoring Information Performance Requirements

The monitoring information capability specified in Clause 3.2 shall meet the performance requirements specified in Table 1, following the quantitative requirements that are

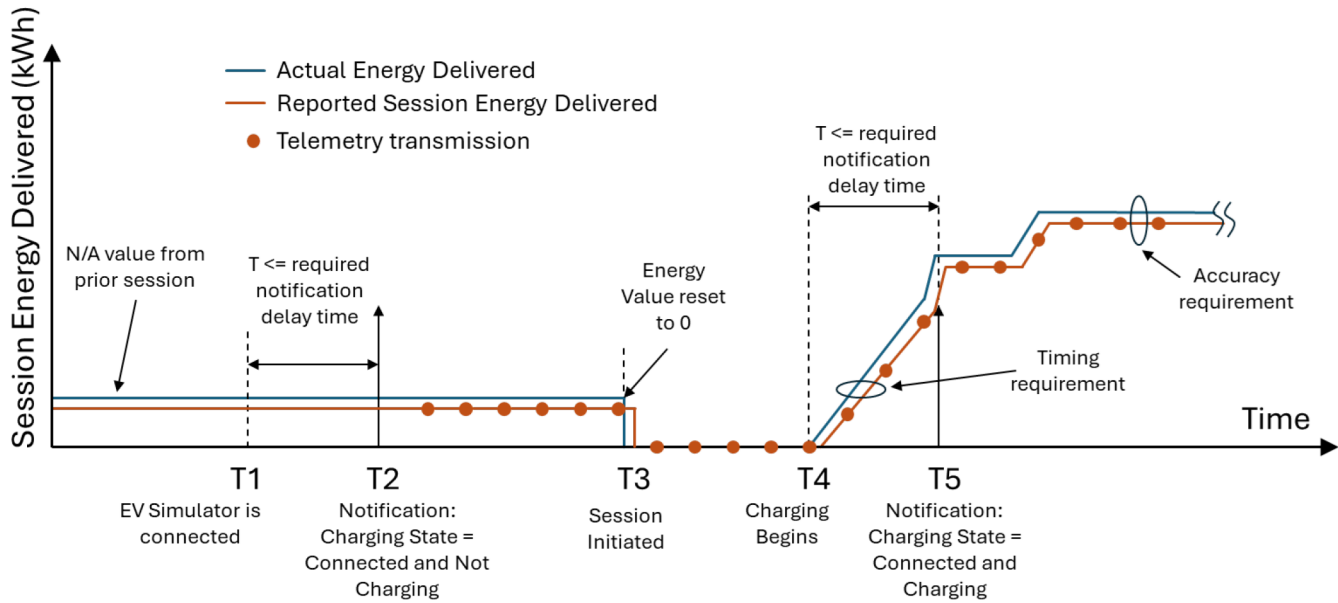
specific for the corresponding certification Mercury level, and illustrated in Figure 4 and Figure 5. For the parameters Actual Charging Current, Actual Charging Power and Session Energy Delivered the monitoring value shall reflect the parameter to within the required accuracy within the time specified for each tier. For the parameters Voltage Level, Charging State and Override Status the reported monitoring value shall reflect the change, when it occurs, to within the required accuracy within the time specified for each tier.

Figure 3 illustrates the timing and accuracy requirements as applicable to Actual charging current, Actual charging power, and Voltage level. It is recognized that the reporting cadence is not synchronized with any step changes that may be applied as part of testing and that appropriate procedures are necessary to ensure that the EVSE meets the timing requirements.



**Figure 3.** Timing and accuracy requirements for Actual charging current, Actual charging power and Voltage level.





**Figure 4.** Timing and accuracy requirements for Charging State notifications and Session Energy Delivered

### 3.3 Control Functions

#### 3.3.1 Charging Schedule Function

The EVSE shall support the ability to receive and execute a Charging Schedule Function whereby the charging level of any connected EV during the schedule period is limited to the present value of the schedule.

##### 3.3.1.1 Default and Dispatch Schedules

In order that the EVSE shall fall back to default behavior during a period of lost communication, the EVSE shall accommodate two schedules, default and dispatch, with the following handling:

- **Default Schedule:** When present, a Default Schedule shall manage the behavior of the EVSE whenever a Dispatch Schedule is not currently active. A Default Schedule could, for example, be used to manage day-to-day charging behavior for ongoing time-of-use behavior desired by the consumer.
- **Dispatch Schedule:** When active, a Dispatch Schedule shall take precedence over any Default Schedule that may be present. A Dispatch Schedule could, for example, be used by a managing entity to modify the EVSE's default behavior as part of a grid flexibility service.

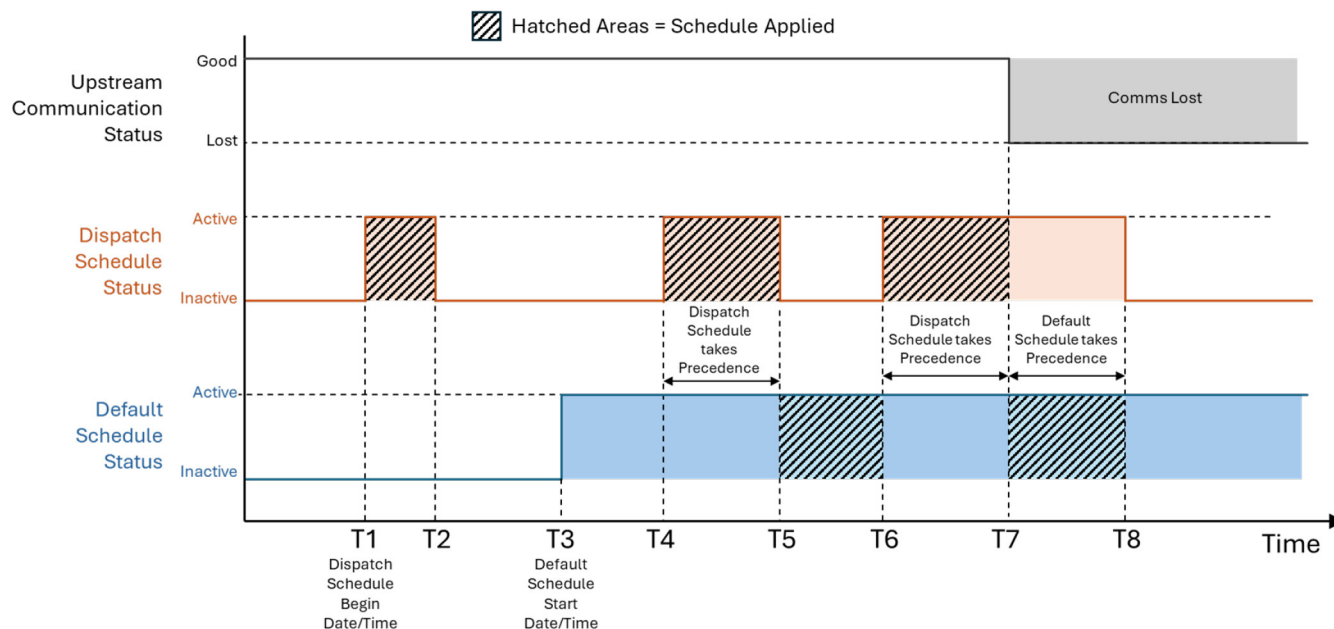
The EVSE shall manage the overlap and prioritization of schedules as illustrated in Figure 5 and described below.

**Schedule Presence and Effectivity:** Depending on the time/date values included in a given schedule, it is possible for a schedule to be present in an EVSE, but not effective at the current time. For example, a schedule might define hourly behavior from noon till 7PM on the following day. The EVSE shall accommodate the receipt and holding of such schedules.

The EVSE shall also accommodate schedules that are effective at the time of receipt. For example, a Dispatch Schedule that defines hourly behavior all day Saturday might be transmitted to the EVSE at noon Saturday. In this case, the EVSE shall activate the schedule immediately.

**Single Schedule Present:** The EVSE shall properly follow either a *Default Schedule* or a *Dispatch Schedule* whenever only one is present and/or effective. For example, in Table 6 from T1 to T2 only a *Dispatch Schedule* is present and in such a period this schedule shall function. Similarly, from time T3 to T4 and from T5 to T6, only a *Default Schedule* is present and effective and in such periods this schedule shall function.





**Figure 5.** Example of default schedule and dispatch schedule implementation

### Effect of Local Overrides on the Charging Schedule

**Function:** The *Local Override* function described in Clause 3.3.2 shall cause the EVSE to ignore any Dispatch or Default Schedules and to operate according to the local preference. The *Local Override* shall be reset when the EV is unplugged. The EVSE shall notify the DER-M of any change to the Local Override status. The EVSE shall retain schedules and, if effective and not otherwise terminated by the managing entity, their operation shall resume when another vehicle connects.

### Effect of Power Cycles on the Charging Schedule Function:

EVSEs shall store *Dispatch* and *Default Schedules* in non-volatile memory such that they remain present through power cycles of any duration. Upon power up, any present and schedules that are valid for the current time shall function in accordance with and consumer overrides and the requirements and prioritization stated above.

### Effect of Communication Loss on the Charging Schedule

**Function:** EVSE's shall continue to execute present and effective schedules in the event of any lost or intermittent communication with the managing entity unless a *Local Override* occurs.

### 3.3.1.2 Behavior on EV Connection

When an EV connects to an EVSE:

- A Connected Notification shall be sent to the DER Manager.
- The EVSE starts the charging session, according to the default schedule, if present.
- The DER Manager may deliver the dispatch schedule to the EVSE; in such case, the EVSE shall implement the charging session as described according to the overlaps and prioritization mechanisms described in Clause 3.3.1.1. If the DER-M does not deliver the dispatch schedule, the EVSE continues to follow the default schedule, if present.

### 3.3.1.3 Schedule Capabilities

Dispatch and Default Schedules shall support the specific requirements identified in Table 4.

### 3.3.1.4 Time Keeping and Adjustment Capabilities

To support the execution of the Charging Schedule Function and other time-related characteristics, the EVSE shall have a time keeping capability that meets the requirements in Table 5.



**Table 4. Schedule requirements**

FEATURE	DESCRIPTION	REQUIREMENTS
<b>Number of schedule entries</b>	The number of individual time periods for which separate charging limit values can be specified.	EVSE shall support schedules with up to 96 schedule entries.
<b>Time values for each schedule entry</b>	Means to set the effective time window for each schedule entry.	Shall support time resolution of 1 minute or better. Specific mechanism to be determined by the standard protocol used. For example, a start time and duration, start and stop times, or a series of start times with no gaps. See Clause 3.3.1.1
<b>Power/Current limit values for each schedule entry</b>	Means to set the charging current limit for each schedule entry.	Current limit values shall be configurable to at least 1% resolution from the limit indicated in the standard (e.g., 6A) to 100% of the <i>Maximum Charging Capacity</i> . The specific formatting is to be determined by the standard protocol used.
<b>Schedule recurrence</b>	Means having a configured schedule of charging limit values take effect on a recurring basis	In addition to monotonic , non-recurring schedules, the schedule mechanism shall support daily and weekly recurrence.
<b>Accuracy of charging limit control</b>	Means having a configured schedule of charging limit values take effect on a recurring basis	The Pulse Width Modulation (PWM) signal (output from the EVSE to control the EV charging limit) shall maintain a duty cycle value that is within 10% of the expected duty cycle value for any charging schedule value across the adjustable range specified above.
<b>Response time of charging limit control</b>	Requirement for how <u>quickly</u> the EVSE sets the signal for EV charging limit, based on the charging schedule values.	The PWM signal (output from the EVSE to control the EV charging limit) shall arrive at the correct duty cycle (within the accuracy stated above) to satisfy the response time requirements defined, for each Mercury level, in Table 1.

**Table 5. Requirements for time keeping capabilities**

FEATURE	DESCRIPTION	REQUIREMENTS
<b>General Time/Date Capability</b>	Fundamental ability for the software applications and logic of the EVSE to be informed regarding the date and time.	Shall support date (month, day, year) and time (hours:minutes:seconds).
<b>Time format</b>	The representation of time relative to local or absolute time.	Shall use Coordinated Universal Time (UTC) time without Daylight Savings Time (DST).
<b>Resolution</b>	The granularity to which the EVSE can resolve the current time.	1 second or less.
<b>Calendar Awareness</b>	Ability of the EVSE to know day-of-week (Monday, Tuesday, etc.)	Shall support day-of-week awareness to support weekly recurring schedule types.
<b>Real-Time Clock</b>	The ability to maintain knowledge of real time through power outages.	The EVSE shall have either a battery backed up real time clock, and/or Network Time Protocol (NTP) network time synchronization, such that time and date are maintained through power outages. The time must settle before the EVSE will accept a charge session so that telemetry timestamps can be relied upon.
<b>Time Keeping Accuracy</b>	How accurately the EVSE maintains time without remote updates/ adjustments.	Accuracy in the range of $\pm 20$ –50 ppm across the EVSE operating temperature range.



**Table 6.** Configurable reporting cadence requirements

FEATURE	DESCRIPTION	REQUIREMENTS		
		Mercury Level 1	Mercury Level 2	Mercury Level 3
<b>Minimum Reporting Interval</b>	The minimum value to which the monitoring information reporting interval shall be adjustable.	<1 second	<1 seconds	<10 seconds
<b>Maximum Reporting Interval</b>	The maximum value to which the monitoring information reporting cadence shall be adjustable.	1800 seconds		
<b>Resolution of Reporting Interval</b>	The resolution to which the monitoring information reporting interval shall be adjustable.	0.1 seconds	1 second	1 second
<b>Stopping Pushed reporting of Monitoring Information</b>	Provides a means to stop the recurring reporting of monitoring information. <b>Note:</b> this shall not affect the unsolicited notification of Charging State identified in Table 3.	Setting the Reporting Interval to zero shall be supported and shall result in stopping the recurring reporting of monitoring information.		

### 3.3.1.5 Configurable Reporting Time Interval

The EVSE shall support the ability to configure the reporting interval for pushed monitoring data as specified in Table 6.

### 3.3.2 Local Override

The EVSE may have a local interface for receiving a direct command that overrides the ongoing schedule set by the DER-M. For example, in the case where the end user wishes to immediately charge their EV regardless of cost, they shall be able to override the DER-M control locally, through whatever human-interface mechanism the OEM wishes to make available. This override shall automatically turn off when the EV is next disconnected such that the user must manually override each time, to maximise availability of the DER to demand response.

Note that local override shall not bypass any EVSE safety limits or local power balancing features of the EVSE so as not to trip grid connection circuit protection.

The power schedule of the EVSE during an override is the responsibility of the OEM. During the overridden session the EVSE shall report monitoring data to the DER-M in the same way as when implementing a power schedule received from the DER-M. The method of override is not limited to the Mercury ecosystem and the EVSE manufacturer is free to implement any additional override mechanism.

During Mercury testing the test procedure shall direct the test house to the OEM documentation. OEMs shall ensure that

the local override feature is adequately documented such that the test house can use the feature without reference to any OEM support other than the user documentation.

Mercury does not dictate how the override will be charged or billed for, only that it shall exist to ensure that a local command (which can come, for example, by the user) has the ability to regain control.

In case the override command is received, the EVSE shall:

- Interrupt the ongoing Charging Schedule Function.
- Set the charging limit as per the local signal.
- Modify the value of the Override Status, part of the monitoring information.

### 3.3.3 Fail Safe and Stranded Assets

To ensure consumer protection, Mercury mandates a fallback functionality in the event of an EVSE manufacturer removing support for an EVSE, closing cloud services, or entering insolvency.

The consumer shall be able to switch to another flexibility program and enroll their EVSE with a DER Manager after one of the above events. The EVSE shall allow this function to be performed locally without any connection to the OEM cloud.

In order that assets shall not become stranded, the switch to a local flexibility enrollment feature from a cloud implementation shall happen automatically without being actively commanded by the OEM. The trigger shall be 7





consecutive days of unavailability of the OEM cloud. If the OEM cloud becomes available after the outage period, the EVSE may disable the local flexibility program enrollment feature only if the user has not already utilised the feature.

This behavior will depend on the specific protocol used, but must allow users the ability to add, remove, and change all the key information needed to onboard a EVSE with a DER Manager.

## 4 COMMUNICATION REQUIREMENTS AND APPLICATION OF FUNCTIONAL REQUIREMENTS TO OCPP 1.6

The EVSE shall have the ability to connect to an IP-based network with internet access. Any open standard connection interface type shall be permissible. The process of setting the EVSE LAN IP address shall be described in the user manual included with the EVSE and shall be achievable locally without dependencies on special tools or systems.

The EVSE shall support at least one of the open standard communication protocols specified in Table 7.

The EVSE shall have the ability to connect to the upstream monitoring and management system and establish communication based on the communication protocol options stated in Table 8. This action may include the connection to the dedicated server, as described by the OEM.

Table 7. Communication protocol options

PROTOCOL	DESCRIPTION
OCPP-J v1.6	Implementation requirements for the OCPP protocol [2] for each of the Nameplate, Monitoring, and Management functions are detailed in Clauses 3.1, 3.2 and 3.3.

### 4.1 Security and Authentication Requirements

To ensure a minimum level of security, Mercury mandates several security principles that must be met.

**Encryption:** all Internet based communication (between EVSE -> DER-M) must be encrypted, with a minimum TLS 1.2.

**Authentication:** a minimum identifier/password combo shall be used at the EVSE level to minimize the risk of charger impersonation. The specifics of both will depend on the specific protocol used.

The detailed security guidelines and pairing process will be included in the next version of this document.

### 4.2 OCPP v1.6 Mapping

The section below describes the mercury implementation details for OCPP 1.6. The implementation must be using the OCPP 1.6-J variant, that is using JSON over web sockets.

Consortium members who manufacture and/or integrate OCPP-certified products for consumer services and/or demand response programs have mapped the Mercury Functional Requirements to their implementation in OCPP 1.6 as the first international protocol selected by Mercury. This mapping is under review with the Open Charge Alliance (OCA) before its release for further dissemination.



### 4.2.1 Authentication and Encryption

The EVSE and DER-M shall use OCPP security profile 2, with username and password authentication on the device and a minimum encryption level of TLS 1.2. The username and password shall be unique for each EVSE.

Mercury does not dictate the methodology for inputting the username/password combo onto the EVSE, however if the communication is over the Internet, the communication shall be encrypted with at least TLS 1.2. The method must also account for fallback behavior (as outlined in Clause 3.3.3).

### 4.2.2 Handling of Static Information

#### 4.2.2.1 *Timing of Static Information Reporting*

### 4.2.3 Handling of Monitoring Information

#### 4.2.3.1 *Performance of Monitoring Information Function*

### 4.2.4 Handling of the Charging Schedule Function

## 5 GENERAL REQUIREMENTS

### 5.1 Labeling

Mercury Enabled products outer packaging shall include the Mercury logo. The logo placement and size shall be such that it is readily noticeable to the consumer.

Products that utilize physical communication interfaces such as Ethernet, RS-485, etc. for the communications required in this Mercury specification, shall include clearly visible labeling that identifies the interface to be used for energy program connectivity.

### 5.2 Instructions for Utilization of the Mercury Capabilities

Mercury Enabled products packaging shall include instructions for the consumer on how to activate, setup and configure the product's communication and control capabilities described in this specification.

Test agencies shall execute certification testing using only the instructions provided and the procedure shall confirm that no special assistance from the product manufacturer was required.

### 5.3 Retention of Configuration, Setup, and Energy Program Participation

Configuration and setup parameters related to the activation and utilization of Mercury-specified capabilities and energy-program participation in general shall be retained through power cycles and software/firmware updates. If a product is actively commissioned and participating in an energy program, it shall automatically resume participation following software/firmware updates without requiring consumer intervention.

## 6 REFERENCES

1. Mercury – EVSE Application Guide Document (URL: [www.mercuryconsortium.com](http://www.mercuryconsortium.com))
2. Open Charge Point Protocol 1.6, edition 2 FINAL, 2017-09-28 (ocpp-1.6 edition 2.pdf)







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