Quality commitments for charging station owner and/or operator of publicly accessible charging infrastructure.

Version: 2020-10-01 (1.7 and 3.6 modified)

Operational unit(s) concerned: ……

1) Design and operation of charging infrastructures.

Statement	Target value for parameter
1) 1. The owner or operator is registered at AFIREV, the identifier registering office (IDRO) to be assigned an identifier prefix; he respects the rules published by AFIREV, keeps up to date the registered information and renews its registration when it expires.	
1) 2. All charging pools and charging points (EVSE) are uniquely identified (ID) in accordance with the standards published by AFIREV. These IDs are shared with EMSP and any other interested partner or roaming Roaming Platform (they are part of the published static data). If the sockets or connectors within a charging point need to be identified, these identifiers are not communicated externally to avoid confusion with the charging point that carries them.	
1) 3. The infrastructure is designed with a backend system which can be connected to partners, allowing users (EV drivers) to access either through an EMSP subscription, or through ad-hoc payment at the charging station.	
1) 4. Authentication for authorization to charge using an EMSP contract identifier is made possible and can be done locally (e. g. RFID card reader) or remotely (the user request is transmitted by the EMSP to the CPO) as chosen by the user.	optional
1) 5. At least X1 % of the charging points are available (see definition in page "FAQ and definitions") more than 99 % of the opening time of the charging service in a year.	X1 = 80
1) 6. Fixed and variable displays (e.g. LEDs) on the charging points are accurate, readable (e.g. with sun) and clearly understandable (e.g. an information on the meaning of LEDs color and status is available).	optional
1) 7. X3 % at least of the charging sessions for authorized vehicles are not interrupted in less than 2 minutes and 0.5 kWh delivered.	X3 = 99
1) 8. Solutions allow the CPO to detect anomalies that prevent normal use of the charging points through monitoring by backend system (e.g. in case of disconnection of the power supply circuit breaker), user alert, periodic physical inspection etc. and to update static and dynamic data accordingly.	optional
1) 9. Solution is provided to allow users to charge even in case of temporary interruption of communication between the EVSE and its back end.	
1) 10. Teleoperation and maintenance organization is able to correct major anomalies: - within X4 minutes for any anomaly concerning unlocking the plug of a user in a charging point, - within X5 business days for other material anomalies.	X4 = 15 X5 = 5
1) 11. The installer of the recharging points is qualified following training at level P2 for an AC installation or level P3 for a DC installation.	
1) 12. The maintenance technician has undergone qualifying training at level P2 (AC) or P3 (DC) and specific training in charging infrastructure maintenance.	optional

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2) Services and data.

Data transmission means either to the roaming platform or to the EMSP in the case of a direct connection.

Statement		Target value for parameter
2) 1.	All static data as defined in standards and regulation are publicly accessible and, in case of change, updated within X6 days. At minimum, static data include: - Location of each charging pool with adequate accuracy and precision (especially on highways), - The type(s) of socket(s) or connector(s) that equip each charging point with the standard designations and labels (NF-EN 17186), - Ad-hoc payment method - Authorization means accepted (RFID, NFC, Remote through EMSP, Plug & Charge…) - Access information at a charging pool (free access, after entrance control…) - Nominal Power of each charging point. - Station Sign/Brand helping for visual identification on site. - Future plan: fee for charging formula on ad-hoc payment.	X6 = 5
2) 2.	If the power of a charging point is likely to decrease significantly compared to its nominal value during charging (resulting from local regulation), the user is informed directly or via his mobility operator or the roaming platform, for example by a static data published as indicated in 2) 1.	optional
2) 3.	Any change in the dynamic status of a charging point (in/out of service, free/occupied, tariff, maximum power available etc. according to communication protocols) is updated in the data publication towards the roaming partners in less than X7 seconds.	X7 = 60
2) 4.	Mobility operators and/or the roaming platform are informed of any impacting anomaly detected in the CPO service, equipment or data exchange within X8 minutes.	X8 = 5
2) 5.	Response time to webservice requests such as authorization to charge from a mobility operator or roaming platform, including communication with the charging station, is less than X9 second.	X9=3
2) 6.	Any untimely charging interruption during a session, preventing charging as expected by the user, is notified to him, directly or through his EMSP or the roaming platform.	
2) 7.	Any decrease of more than 30% compared to the nominal power of the power delivered to the vehicle during a significant time, preventing the recharge expected by the user shall be notified in real time to the user, directly or via his mobility operator or the roaming platform.	optional
2) 8.	Any confirmed static data error identified by a customer or a mobility operator or a roaming platform is corrected within X10 business days after the moment it has been reported to the CPO.	X10 = 5
2) 9.	The CPO is open to requests from mobility operators for a roaming agreement and answers to the request (yes, justified rejection, conditions) within X11 working days, offering charging services on fair conditions.	X11 = 15
2) 10.	After signature of a roaming contract with a mobility operator, charging service is available to the mobility operator customers within the agreed time in this contract.	

Statement	Target value for parameter
2) 11. Quality of IT service of the backend system is adequate in terms of: MTBF (Mean Time Between Failures), MTTR (Mean Time To Repair), response time to requests (with limitation of longest response times), prevention of stuttering (uncontrolled repetition of the same message), throttling control and also cyber security. ISO 27001 (IT Security) is an ultimate reference.	optional
2) 12. A solution makes it possible to collect data characteristic of the quality of operation of services (see list of indicators in the page "FAQ and definitions") and to provide such data to the quality observatory of AFIREV.	optional

3) Price of services and invoicing.

Statement	Target value for parameter
3) 1. While roaming, the rate and metrics (see page "FAQ and definitions") are sent to the mobility operator at the appropriate time so that users can know the applicable rate before the session, and the total price after the session.	
3) 2. The tariff scheme and unit price(s) for Ad Hoc payment are displayed so that the EV driver is informed before charging (e.g. display or sticker at the station, app or website), and of the total price after the end of the session. Tariff scheme has no hidden costs. Any option fee (e.g. mean of payment option) is clearly stated.	
3) 3. The information on charging tariff with ad-hoc payment specifies that it does not concern the price of a roamed session and refers the user to his mobility operator to be informed.	optional
3) 4. Tariff scheme and unit price(s), and their updates, applicable to a mobility operator are communicated to him in a timely manner in accordance with the roaming agreement.	
3) 5. The charging detail record (CDR) of a session is sent to the EMSP within X12 minutes after the session. The CDR contains all the information agreed by contract; in any case: date, total duration of the session, number of kWh delivered and any additional information necessary to calculate the total price of the session according to the tariff scheme.	X12 = 1
3) 6. A charging session is invoiced under the following conditions: - The vehicle has been detected and remained connected for at least X13 minutes and has been powered with more than X14 kWh. - No defects in identification and connection were detected by the charging station or reported by the customer. - Registered energy volume of the charging session is maximal X16 kWh, duration of the session is less than 24 hours (these extreme figures to limit consequences of data error). If these conditions are not fulfilled, a billable CDR is sent anyway with a null total cost.	X13 = 2 X14 = 0.5 X16 = 350

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4) User assistance.

Statement	Target value for parameter
4) 1. Information on how to use a charging point is displayed at the charging point or in the pool (e.g. order of sequence of operations: authorization, plug-in on EV side, plug-in on charging point, etc.)	
4) 2. A call center phone number is displayed on every charging station or pool. This phone number works during the station's business hours.	optional
4) 3. This call center is able to solve user emergency situations due to the infrastructure (e.g. locked cable) during opening hours within 15 minutes in X16 % of the cases (see statement 1-10).	X16=80
4) 4. The call center refers the user to his mobility operator only for causes that duly concern the latter.	optional
4) 5. This call center or a specific number is made accessible to mobility operators on the purpose to help solving customer problems, as stated in the roaming agreement.	optional