

OFFICIAL



Technical Regulator Guideline

Technical Standard for Installation of Electric Vehicle Supply Equipment (EVSE)



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Acknowledgement of Country

The Department for Energy and Mining acknowledges Aboriginal people as the First Nations Peoples of South Australia. We recognise and respect the cultural connections as the traditional owners and occupants of the land and waters of South Australia, and that they continue to make a unique and irreplaceable contribution to the state.

1 Document Approval and Control

Document Control

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2 Objectives

The objectives of this Technical Regulator Guideline are to:

- specify demand response (DR) standards for electric vehicle (EV) chargers (other than public fast chargers);
- specify how suppliers can demonstrate compliance with the standards; and
- specify how installers can identify complying products and record their installation.

The number of EVs in use in the South Australian community is growing. Most of these will be charged at the owner's home or workplace, some, or all of the time. It is possible to plug the EV directly into a standard general-purpose outlet, but the rate of charging will be too slow for most EV users. It is expected that most will install fixed Electric Vehicle Supply Equipment (EVSE) permanently connected to the electricity supply. The EV is then plugged into the EVSE for charging.

The EVSE regulates charging power, which may be as high as 19 kW for a single-phase supply and up to 30 kW for a three-phase supply, although most will operate far below these maxima due to the constraints of the local electricity supply. Even at constrained power, the EVSE will usually be the largest single electricity load on the site. If many EVs are charging at full power at the same time, it could create problems for the local electricity distribution network. The costs of augmenting the network would be significant and could fall on non-owners of EVs as well as owners.

EV users can be encouraged to manage their charging demand by a range of measures, including time-variable energy prices. They may wish to reduce their costs by switching chargers on and off through smartphone apps, programme a home energy management system (HEMS) to charge when photovoltaic (PV) output is at its peak or authorise an aggregator or Remote Agent to manage charging on their behalf – all examples of “smart charging” or “demand response” (DR).

These strategies require EVSEs that are able to communicate and to alter their mode of operation in response to external signals. It is the Government of South Australia's policy that all EV chargers installed after 1 July 2024 must have these capabilities, so that EV owners who choose to adopt smart charging voluntarily can do so at minimal cost and without having to change their EVSEs. As the EV market matures, it is likely that more and more homes and business premises will be sold with EVSEs already installed, so it is important that the EVSE should be interoperable between different brands of EVs, as well as between different energy retailers and DR aggregators.

These principles also apply to EVSEs that are capable of managing the discharge of energy from the EV to the electricity grid (sometimes called “vehicle to grid” (“V2G”)). In this Technical Regulator Guideline, such products are termed Electric Vehicle Supply and Discharge Equipment (EVSDE).¹

¹ EVSE is a term defined in international standards for products that manage EV charging. There is no standard term for products that also manage discharge to the grid, hence EVSDE has been adopted here for clarity.

3 Scope

This Technical Regulator Guideline applies to the installation and connection to the electricity supply of EVSEs and EVSDEs that are capable of:

- Charging Mode 3 as defined in standard IEC 61851-1:2017 *Electric vehicle conductive charging system – Part 1: General requirements*; “a method for the connection of an EV to an AC EV supply equipment permanently connected to an AC supply network, with a control pilot function that extends from the AC EV supply equipment to the EV;²” or
- Charging Level 2 as defined in standard SAE J1772:2017 *Electric Vehicle and Plug in Hybrid Electric Vehicle Conductive Charge Coupler*.

This Technical Regulator Guideline applies to all EVSEs and EVSDEs within scope, wherever they may be installed.

The following table summarises the relevant provisions of the standards referenced above.

Standard	Charging	Supply	Max Amps	Max Volts
IEC 61851-1:2017	Mode 3	Single phase AC 1P	NA	NA
		Three phase AC	NA	NA
SAE J1772:2017	Level 2	AC	80	240

3.1 Exclusions

The following products are excluded:

- EVSEs capable of Charging Mode 4 as defined in standard IEC 61851-1:2017; and
- EVSEs capable of Charging Level 3 as defined in standard SAE J1772:2017; and
- On board charge controllers (OBCC) in the EV itself; and
- Charge controllers that are part of charging cables that are physically detachable from the electricity supply (usually associated with IEC Mode 2 or SAE Level 1 charging).

Charging Mode 4 (IEC) and Charging Level 3 (SAE) are typical of commercial and public fast chargers, which are outside the scope of this Guideline because it is expected that their operators will have to manage their demand as a matter of course.

² In this Technical Regulator Guideline, the charging station forming part of a Mode 3 charging setup is called the EVSE in line with industry practice, although according to IEC 61851, the EVSE also includes the flexible cables connecting the EV.

4 Definitions

Charging Mode

Method for connection of an EV to the supply network to supply energy to the vehicle.

Demand Response Mode (DRM)

Mode of operation within specified conditions, constraints or parameters during a DR event (see Table 2).

Electric Vehicle (EV)

A road vehicle that obtains some or all of its propulsion energy from on-board batteries which may be charged from the AC electricity supply grid. An EV can be a Battery Electric Vehicles (BEV) without a fuel engine, or a Plug-in Hybrid Electric Vehicle (PHEV) with a fuel engine.

Electric Vehicle Supply Equipment (EVSE)

Equipment or a combination of equipment, providing dedicated functions to supply electric energy from a fixed electrical installation or supply network to an EV for the purpose of charging.

Note: For Mode 3, the EVSE consists of the charging station and the cable assembly.

Electric Vehicle Supply and Discharge Equipment (EVSDE)

Equipment that has the same characteristics as an EVSE but is also capable of regulating discharge of electricity from an EV to the grid.

Maximum Rate of Charge

The maximum current (Amps) or power (W) that the EVSE is capable of drawing from the AC supply, given the circuit limits and the internal settings made during installation.

Remote Agent

A person, organisation or entity, other than the user or owner, who is—

- a) authorised to initiate DR by transmitting commands and operational instructions; and
- b) responsible for secure communications with the electrical product.

5 Installer Requirements

An installer shall not install or connect an EVSE or an EVSDE of a type that is within the scope of these Technical Regulator Guidelines unless:

1. The product complies with either the Technical Standards (Part 6 of these Technical Regulator Guidelines) or the Deemed to Comply Provisions (Part 7 of these Technical Regulator Guidelines); and
2. The product is of a brand and model that has been registered with the Technical Regulator; and
3. The installer configures the EVSE (in accordance with the manufacturer's instructions) so that it is able to respond correctly to signals to turn load off and to limit charging power or current to 40-60% of the maximum rate of charge; and
4. The installer certifies and registers the installation, once completed.

The installer may regard listing of the brand and model on the register of the Technical Regulator as evidence that the product complies with clause (1) above.

The installer may also activate the DR capabilities of the EVSE at the time of installation by connecting the EVSE to a Remote Agent, subject to the owner's agreement.

6 Technical Standards

6.1 Demand Response

An EVSE shall comply with either:

- a. Open Charge Point Protocol (OCPP) 1.6, edition 2 FINAL, 2017-09-28 (or higher)³; or
- b. ANSI/CTA-2045-B:2021 *Modular Communications Interface for Energy Management*⁴; or
- c. A method or standard that has been “Deemed to Comply” by the Technical Regulator.

An EVSDE shall comply with:

- d. A method or standard that has been “Deemed to Comply” by the Technical Regulator.

For clarity, both SOAP and JSON versions of OCPP 1.6 are acceptable.

Other standards may be added by the Technical Regulator in future revisions of these Technical Regulator Guidelines.

6.2 Remote Communications Capabilities

An EVSE or EVSDE that complies with OCPP (any version) shall have internet capability (the ability to share data via the World Wide Web) and an on-board communication port that can be used for a physical connection to another device (e.g., via ethernet, USB or RS-232).

If an EVSE or EVSDE can communicate wirelessly in a manner similar to an on-board communication port (for example, by providing a secure Application Programming Interface (API) or API over Wi-Fi) that can be used for a connection to another device, this may be utilised in lieu of a physical communication port.

An EVSE that complies with ANSI/CTA-2045-B:2021 has a port that accepts a universal communications module (UCM) as defined in that standard. A UCM may be configured for OCPP, OpenADR or other protocols. A UCM does not have to be supplied with the EVSE. It will be open to Remote Agents or others to supply or arrange for the supply of UCMs that conform with their own systems.

³ Downloadable from <https://www.openchargealliance.org/protocols/ocpp-16/>

⁴ Downloadable from <https://shop.cta.tech/products/modular-communications-interface-for-energy-management>

Table 1 summarises the compliance options for EVSEs and EVSDEs.

Table 1 Compliance Options

Compliance options	EVSE and EVSDE, with regard to EV charging from grid	EVSDE, with regard to EV discharging to grid
Option 1 Technical Standard	OCPP 1.6 V2 or higher	NA
Option 2 Technical Standard	ANSI/CTA 2045-B	NA
Option 3	Meets “Deemed to Comply”	Meets “Deemed to Comply”

6.3 Verification of Demand Response

Irrespective of the Compliance Option in Table 1, the EVSE or EVSDE shall be capable of responding to and implementing *at least* the following:

- An instruction from a Remote Agent to cease or prevent charging (corresponding to either DRM 0 or DRM 1 in Table 2); and
- An instruction from a Remote Agent to constrain the rate of charge in accordance with DRM2 in Table 2; or
- An instruction from a Remote Agent to constrain the rate of charge to between 40% and 60% of the maximum rate of charge set at the time of installation of the EVSE.

The implementation of these DRMs shall be capable of being tested when the EVSE is connected to an actual EV or to an EV analogue load.

7 Deemed to Comply Provisions

The Technical Regulator may deem a brand and model of EVSE or EVSDE to comply if, in the Technical Regulator's opinion, it meets the following requirements.

(For Demand Response Modes (DRM), refer to Table 2).

1. The product is capable of being set (with the consent of the user/owner) so that an authorised Remote Agent can take direct control for a period, over-riding the user settings.
2. The product is capable of being set so that, if it is accessible to more than one Remote Agent at a time, it is clear which Remote Agent's instructions have priority.
3. The user may override some individual DR events, but not DRM 0 or DRM 5 (or their equivalent).
4. The EVSE or EVSDE supplier must nominate one or more means of communication and be willing to supply the hardware and software that enables a Remote Agent to establish secure communication with the product.
5. Once communication is established, the product must be able to respond to, at least the following commands sent by the Remote Agent:

For EVSEs and EVSDEs:

- a) Open the disconnection device or contactor, if present [equivalent to DRM0]
- b) No charging [equivalent to DRM1]
- c) Constrain charging levels, to one of:
 - 50% [DRM2] and/or 75% [DRM3] of a reference value; or
 - over a continuous reduction range (e.g., 40-60% of a reference value), or
 - a maximum current or power level.
- d) Request charge [DRM4]

In addition, for EVSDE only:

- e) No discharge to grid [DRM5]
 - f) Request discharge [DRM8]⁵
6. The reference value/s for reductions in charging levels shall be stated by the supplier. The reference may be a fixed value (e.g., the maximum current set at the time of installation), a dynamic value (e.g., the average power consumed or sent out over a five-minute period prior to the product entering a DRM) or some other measurable value.
 7. The EVSE or EVSDE must be capable of receiving and storing commands for later action at any time.
 8. Commands shall be capable of being changed or deleted by the Remote Agent.

⁵ Note that DRMs 6 and 7 may also be within the capability of an EVSDE, but are optional.

9. To avoid demand surges on the network, the EVSE or EVSDE itself, or the system of which it is a part, shall be capable of establishing time delays between the receipt of a command from a Remote Agent and—
 - a. a target time to commence and cease demand response (i.e., a delay capability); and
 - b. randomisation with regard to the commencement and cessation of demand response, such that DR events do not result in mass simultaneous change in the operating mode of all products of the same model type.
10. The EVSE or EVSDE shall be capable of responding immediately to an emergency command to switch off load, whatever the time delay or randomisation settings.
11. The supplier must provide (and submit to the Technical Regulator) documentation on the product's DR capabilities and how to access them, for the use of prospective purchasers, users and installers.
12. The supplier must provide documentation on its cyber-security provisions to the Technical Regulator (e.g., evidence of TLS certificate above Level 2 and Certification Authority arrangements).
13. It must be possible for the Technical Regulator to randomly select an individual sample unit and to verify that it complies with the above, once the specified mode of communication and testing application have been set up (e.g., in a test laboratory). Suppliers must be prepared to disclose all information and settings needed for testing (see Section 8).

In addition to the mandatory requirements above, an EVSE or EVSDE may offer additional capabilities, such as power quality support or other DR features, provided they do not conflict with the mandatory requirements.

8 Registration

This section describes the ways in which a supplier of EVSEs or EVSDEs can demonstrate, to the Technical Regulator, that a product complies with the requirements and so qualifies for registration.

The Technical Regulator reserves the right to:

- Seek further information regarding an application for registration, whether from the applicant or other sources; and
- Request further evidence that a product meets the requirements; and
- Commission independent testing (see Section 9) to verify that a product meets the requirements. (This could include physical testing of the EVSE or EVSDE with an actual EV or EV analogue); and
- Remove a product from the register, if the Technical Regulator forms the view that the information supplied with the application for registration was incorrect, or that the product no longer complies with the requirements, or the registrant voluntarily requests removal.

8.1 Declaration

The submission by an applicant of a properly completed and signed Form A constitutes a declaration that the product complies with the requirements. The Technical Regulator may accept this declaration as sufficient for registration, or request the applicant to submit additional information, including third party certification that the product complies.

If the characteristics of the product (as offered for supply or as already installed) change in future so that it no longer complies, it is the obligation of the registrant to inform the Technical Regulator accordingly.

8.2 Certification

The applicant may submit, and the Technical Regulator may request, evidence from a recognised certification agency that the product meets the nominated Technical Standard.

In the case of OCPP, the Open Charge Alliance offers an official OCPP Certification Program, supported by a number of independent test laboratories.⁶ A Certificate will only be accepted by the Technical Regulator if it covers Smart Charging and Remote Trigger functionality as well as Core functionality.

⁶ <https://www.openchargealliance.org/certification/ocpp-16-certification/>

9 Testing

All products, including those registered and certified by third parties, may be subject to verification of their performance through physical testing.

In this context, performance means the ability of the product, when properly installed and commissioned, to implement an instruction and manage the charging behaviour of an actual EV, or a test load that simulates an EV, in response to commands or instruction from an actual or simulated remote agent.

This section describes a general test procedure to be carried out by a test laboratory, if commissioned to do so by the Technical Regulator, an applicant or some other party.

An applicant claiming compliance with a specified Technical Standard (Option 1 or Option 2) will need to declare compliance (by submitting Form A) but will not be required to provide verification of compliance (by submitting a Form C test report) unless requested to do so by the Technical Regulator. An applicant claiming compliance via the Deemed to Comply provision (Option 3) will be required to provide a test report (Form C).

A product that is registered as complying with a specified Technical Standard (Option 1 or Option 2) may have its registration cancelled if subsequent testing shows that it does not meet the provisions of the relevant standard or that it fails to achieve the required operating mode in the physical EV or equivalent load.⁷

A product that is registered as Deemed to Comply (Option 3) may have its registration cancelled if subsequent testing shows that its performance is not consistent with the originally submitted test report.

Capabilities not required under the relevant Technical Standard or Deemed to Comply provisions should not to be tested, unless such additional capabilities are claimed by the supplier.

9.1 Test Setup

The EVSE (or EVSDE) shall be assembled, connected to an AC power supply and set up to operate in accordance with the manufacturer's instructions. If requested by the test laboratory, the supplier shall provide any additional information necessary to undertake the tests (e.g., reference values and pre-set limits for DRM 2, DRM 3, DRM 6 and DRM 7 – see Table 2).

If the EVSE is configured so that discrete maximum rates of charge can be set at time of installation (e.g., 3.6 kW and 7.2 kW single-phase and 11 kW and 22 kW three-phase), the tests shall be performed at each of the configurable settings.

⁷ For an example of a physical test of an EVSE product complying with ANS/CTA-2045, see https://www.bpa.gov/EE/Technology/demand-/Documents/CTA2045%20Datashare/NREL%20testing%20CTA-2045%20EVSE_Nov%202017_00000003002011757.pdf

Communication shall be established between the EVSE and an external controller simulating a Remote Agent, in accordance with the manufacturer's instructions. This includes both a transport pathway (e.g., Ethernet, Wi-Fi, 3G, 4G, powerline or other) and a means of issuing instruction(s) to and exchanging information with the EVSE (e.g., a test program run over Ethernet, the supplier's cloud or other methods of communication).

An EVSE or EVSDE shall be tested when connected to an actual EV or to an "EV analogue" which will interact with the EVSE in the same way as an EV (e.g., via a control pilot signal). An EVSDE capable of controlling discharging shall be tested when connected to an actual EV or to an EV analogue that can replicate both a charging and a discharging EV.

The electricity supply to the point of connection of the EVSE or EVSDE shall be maintained within the following limits during all tests:

- For single-phase units: Voltage—230 V a.c. $\pm 1\%$
- For three-phase units: Voltage—400 V a.c. $\pm 1\%$
- Frequency—50 Hz $\pm 1\%$.

The power input to the EVSE or EVSDE from the electricity supply and the power output from the EVSDE shall be monitored for the duration of the test, with readings recorded at intervals of not more than 1 second. The accuracy of power measurements shall be $\pm 2\%$.

9.2 Verification of demand response capabilities

When tested, the EVSE or EVSDE shall demonstrate the claimed DR capabilities under any condition that the tester selects, provided the condition is within the range of operating conditions of which it is capable.

The claimed DR capabilities shall be tested:

- For EVSEs and EVSDEs, when testing EV charging from the grid – while connected to an EV or EV analogue that is sufficiently discharged so that charging continues for the duration of the tests;
- For EVSDEs, when testing EV discharging to the grid – while connected to a fully charged EV or to an EV analogue set to simulate a fully charged EV.

At a minimum, the correct response to the following instructions shall be verified:

- An instruction from a Remote Agent to cease or prevent charging (corresponding to either DRM 0 or DRM 1 in Table 2); and
- An instruction from a Remote Agent to constrain the rate of charge in accordance with DRM2 in Table 2; or (depending on the supplier's documentation); and
- An instruction from a Remote Agent to constrain the rate of charge to between 40% and 60% of the maximum rate of charge set at the time of installation of the EVSE.

If compliance with other DRMs in Table 2 are claimed by the product supplier, their implementation shall also be tested.

Table 2 Demand response modes to be tested

DRM	General description of required response
0 (a)	Open the disconnection device or contactor, if present
1 (a)	Do not consume energy from the grid for charging EV but control and auxiliary functions may continue.
2 (a)	When charging, limit rate to $\leq 50\%$ of reference value or to a pre-set limit (c)
3 (a)	When charging, limit rate to $\leq 75\%$ of reference value or to pre-set limit (c)
4 (a)	Initiate charging from grid if able to do so. If already charging, increase rate if able to do so
5(b)	Do not discharge energy to the grid
6(b)	When discharging, limit rate to $\leq 50\%$ of reference value, or to pre-set limit (c)
7(b)	When discharging, limit rate to $\leq 75\%$ of reference value or to pre-set limit (c)
8(b)	Initiate discharging of energy to the grid if able to do so. If already discharging, increase rate if able to do so.

(a) These DRMs apply to EVSEs and EVSDEs. (b) These DRMs apply to EVSDEs only. (c) Reference value and/or limits, method of calculating them and units (e.g., Amps or kW) to be notified by supplier to test laboratory, if not already in the documentation.

If DRM 1 is achieved by opening a contactor (as is the case for most EVSEs), then it is acceptable for an instruction for DRM 0 to have the same outcome as an instruction for DRM 1.

DRMs 2, 3, 6 and 7 may be achieved either as target pre-set point, or by selecting a value across a continuous operating range (e.g., by setting 1% increments of a reference value).

DRMs may be combined in the following ways:

- DRM 4 with DRMs 2 or 3; i.e., request initiate charging from grid but within a limit.
- DRM8 with DRMs 6 or 7; i.e., request discharging of energy to the grid but within a limit.

9.3 Other Capabilities

User over-ride shall be tested for all DRMs where it applies (according to supplier's documentation) to verify that it operates as stated. For products registered as Deemed to Comply, it shall be verified that there is no user-over-ride in cases where it must not apply (i.e., DRM 0 and DRM 5).

If any other DR capabilities beyond those in Table 2 are claimed, including power quality support capabilities, they should be tested and reported.

9.4 Test Report

The test report shall be in the form of a completed Form C in Section 10, with attachments as necessary.

10 Forms

10.1 A. Information to be provided by Product Supplier Applying for Product Registration

South Australia Technical Regulator Guideline

Technical Standard for Installation of Electric Vehicle Supply Equipment (EVSE or EVSDE) for Mode 3 Charging, Version 1, 2024

FORM A. DECLARATION OF COMPLIANCE (via an accepted standard or 'Deemed to Comply')

1. Supplier company name	
2. Company Australian Business Number	
3. Company website	
4. Company registered address	
5. Company street address	
6. Contact person (A name, address and contact details for a person in Australia shall be provided)	a. Name
	b. Address
	c. Position/title
	d. Telephone
	e. email
	f. Mobile
7. Brand name of product	
8. Model designation (Please attach image of nameplate/s and list all models covered by this application: This can be numbers or names or combinations of characters, including wildcards)	
9. Name of manufacturer	
10. Date manufacture of this model commenced/will commence	
11. Country of manufacture	
12. Please list all standards and certifications with which the product complies (e.g., IEC 618951, CE, RCM etc)	
13. Is model an EVSE or EVSDE? (see Guideline definitions)	
14. If EVSE, compliance option under which registration is requested (if a later edition, please write in the version)	OCPP 1.6 ed 2 or above ANSI/CTA 2045-B:2021 Deemed to Comply
15. If EVSDE, compliance option	Deemed to Comply

16. If requesting registration under OCPP 1.6 or ANSI/CTA 2045-B, has product been tested or certified by a recognised authority? If so, please attach copy of test report or certificate.	
17. If requesting “Deemed to Comply” registration, what is number of test report? (report must be submitted with this form).	
18. All maximum charge settings for this product (either factory-set or discrete levels selectable at time of installation; A or kW)	
18. Does product support DRM 0 (see Guideline definitions)?	
19. Does product support DRM 1?	
20. Does product support DRM 2?	
21. Does product support DRM 3?	
22. Does product support DRM 4?	
23. Does product support DRM 5? (EVSDE only)	
24. Does product support DRM 6? (EVSDE only)	
25. Does product support DRM 7? (EVSDE only)	
26. Does product support DRM 8? (EVSDE only)	
27. Does the product support a variable rate of charge or discharge (e.g., % of a reference value)	
28. Have DRMs been tested with actual EV or EV analogue?	
29. What are reference values or algorithms for DRMs 2,3,6,7 or variable charge rates? Please attach description	
30. Which DRMs are subject to user over-ride? Please attach details (e.g., how users access it, how often it may be activated)	
31. Does product have other demand response related capabilities? If so, please attach description.	
32. Does product have power quality support capabilities (e.g., consume/export VARS?). If so, please attach description.	
33. What communications network technology does product support (e.g., ethernet, Wi-Fi, 3G, 4G, powerline or other)	
34. Is product to be connected to single or three phase supply?	
35. Pre-set selectable maximum charging levels (Amps or kW)	
36. Minimum A or kW of product when charging	
37. Maximum A or kW of product when charging	
38. Pre-set selectable maximum discharging levels (Amps or kW)	
39. Minimum A or kW of product when discharging	
40. Maximum A or kW of product when discharging	
41. Are copies of documentation for users and installers attached? If not, please add URL where they are accessible.	

Declaration of Compliance

41. I, _____ as authorised representative of the supplier, declare that all information provided is true and accurate, and hereby apply for registration of the product as eligible for installation in South Australia in accordance with the South Australian Technical Regulator Guideline *Technical Standard for Installation of Electric Vehicle Supply Equipment (EVSE), Version 1, 2024*.

41. Signature of authorised representative

42. Date

10.2B. Information to be provided by Installer**South Australia Technical Regulator Guideline****Technical Standard for Installation of Electric Vehicle Supply Equipment (EVSE or
EVSDE)****for Mode 3 Charging, Version 1, 2024****FORM B. INSTALLER DECLARATION**

1. Installer company name	
2. Company Australian Business Number	
3. Company website	
4. Company registered address	
5. Company street address	
6. Installer	a. Name
	b. Address
	c. Position/title
	d. Telephone
	e. E-mail
	f. Electrician licence number
	g. Electrical Contractor Licence Number
7. Location of Installation	a. Name of owner
	b. Address
	c. National Meter Identifier
8. Physical location	a. Inside private garage (house)
	b. Outside on private property (house)
	c. Inside communal garage (apartments)
	d. Inside owner's garage (apartments)
	e. Outside on private property (apartments)
	f. On commercial property (non-residential)
	g. On public land
7. Brand name of product	
8. Model designation	
9. Technical Regulator registration number	
10. Serial number of this unit	
11. Single phase or three phase connection?	
12. Maximum power setting on installation (Amps or kW)	

13. Was unit equipped with communications network technology during installation or commissioning? (e.g., ethernet, Wi-Fi, 3G, 4G, powerline carrier)	
14. Was installation of this unit stand-alone or part of a group of EVSEs or EVSDEs under common control (e.g., by a controller or site energy management system)	
15. Was unit (or group) registered with a demand response aggregator or service provider during installation or commissioning? If so, please indicate which.	
Declaration of Installation Compliance	
16. I, _____ as installer or authorised representative of the installer, declare that all information provided is true and accurate in accordance with the South Australian Technical Regulator Guideline <i>Technical Standard for Installation of Electric Vehicle Supply Equipment (EVSE), Version 1, 2024</i> .	
17. Signature	
18. Date	

10.3C. Report to be provided by Product Test Laboratory**10.4****South Australia Technical Regulator Guideline****Technical Standard for Installation of Electric Vehicle Supply Equipment (EVSE or
EVSDE)
for Mode 3 charging, Version 1, 2024****FORM C. PRODUCT TEST REPORT (for testing compliance with an accepted
technical standard or ‘Deemed to Comply’)**

1. Name of testing agency or laboratory	
2. Australian Business Number (if applicable)	
3. Testing agency website	
4. Testing agency contact address	
5. Address of laboratory where tests carried out	
6. Contact person	a. Name
	b. Address
	c. Position/title
	d. Telephone
	e. E-mail
	f. Mobile
7. Brand name of tested model	
8. Model name or designation	
9. Serial number of tested model	
10. Date/s of test/s	
11. Identification number of test report (please attach report)	
12. Is this a type test submitted with application for registration or a verification test (post- registration)	Type/Verification
13. Name of product supplier	
14. If verification test, registration number	
15. Was completed Form A (Declaration of Compliance) available?	Yes/No (If yes, please attach copy).
16. If Form A available, please check all information on it and indicate any differences between capabilities or performance of model under test and the Declaration of Compliance	Please any differences and attach detailed report

17. Test/s undertaken?	Compliance with OCPP 1.6 ed 2 or above Compliance with ANSI/CTA 2045-B:2021 Compliance with “Deemed to Comply”
18. If test undertaken with EV, what model?	
19. If tests with EV analogue, please describe	
20. communications networking technologies used (e.g., ethernet, Wi-Fi, 3G, 4G, powerline)	
21. Means of transmitting commands (e.g., API, test software, comms protocol – see below)	
22. Communications protocols used in test, if any (e.g., OpenADR/IEC 62746, IEEE 2030.5)	
23. Was product supplier involved in testing (e.g., by providing server or cloud services)?	
24. All maximum charge settings for this product (either factory-set or discrete levels selectable at time of installation; A or kW)	
25. Maximum charge rate settings at which tests were undertaken	
26. Compliance with DRM 0 (see Guidelines)?	
27. Compliance with DRM 1?	
28. Compliance with DRM 2? Please describe reference level or algorithm	
29. Compliance with DRM 3? Please describe reference level or algorithm	
30. Compliance with DRM 4?	
31. Compliance with DRM 5?	
32. Compliance with DRM 6? Please describe reference level or algorithm	
33. Compliance with DRM 7? Please describe reference level or algorithm	
34. Compliance with DRM 8?	
35. Compliance with variable rate of charge or discharge (e.g., % of a reference value)	
36. Any combinations of DRMs tested?	
37. Any other claimed demand response capabilities tested? (e.g., power quality support)	
38. Categories of information/data (operating status, etc) requested from test EVSE	

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39. Categories of information/data (operating status, etc) reported by test EVSE (on request or self-generated)	
40. What are the security provisions (e.g., PIN, certificates, encryption, and authorisation)	
41. Have security provisions been tested?	
42. Any other comments on this test?	
43. I, _____ as authorised representative of the testing agency or laboratory, declare that all information provided is true and accurate, in accordance with the South Australian Technical Regulator Guideline <i>Technical Standard for Installation of Electric Vehicle Supply Equipment (EVSE), Version 1, 2024.</i>	
44. Signature of authorised representative	
45. Date	

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Further information

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