



EV FACT SHEET

Subaru Solterra

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Subaru Solterra. Image: Subaru

INTRODUCTION

The Subaru Solterra is the first all-electric car from Subaru and is built on the joint venture Toyota/Subaru e-TNGA platform. (Called the e-Subaru Global Platform by Subaru). Like the Toyota bZ4X, it fits into the upper end of the Australian VFACTS 'medium SUV' category.

The Solterra has the same ground clearance (212 mm) as the AWD Toyota bZ4X. Unlike the bZ4X though, the Solterra is offered in all-wheel drive (AWD) only.

In many respects similar to the AWD Toyota bZ4X, it would appear that for buyers trying to choose between the AWD bZ4X or the Solterra: the choice between them would come down to price, brand loyalty and/or the location of Subaru or Toyota dealers close to your home address.

DRIVING RANGE

Currently, the official Australian ADR 81/02 test cycle is based on the outdated (and highly over-optimistic) European NEDC test cycle. However few manufacturers now give this figure for their new releases. Instead they generally quote the more achievable ranges found using the newer European WLTP test cycle. (Sadly, Subaru include the NEDC figure in some of their advertising material for the Solterra).

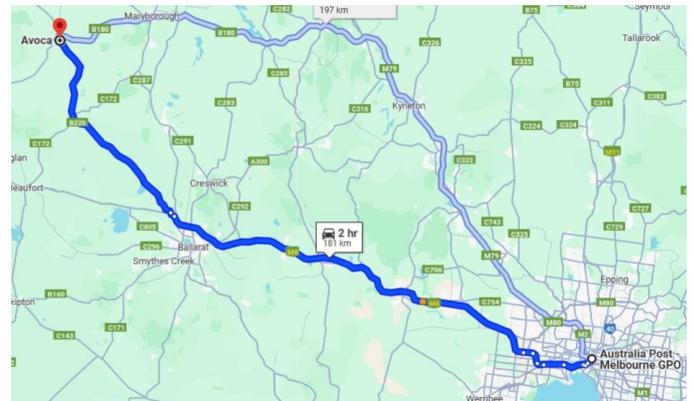
To avoid disappointment, always check which test cycle has been used when assessing an EV for your needs. As a rough guide, NEDC is generally 30% too high, WLTP a good estimate if doing mostly urban and outer suburban driving and US EPA the better guide if doing mostly outer suburban to regional driving.

DRIVING RANGE (continued)

National testing system range estimates in km		
NEDC (Aust)	WLTP (Euro)	US EPA
485 km	416 km	367 km*

Table 1: Driving range estimates for the Subaru Solterra
* On base model's 18 inch wheels. 357 km on 20 inch wheels.

Using the US EPA rating, a Subaru Solterra would, at its limit, make a round-trip from the Melbourne CBD to Avoca via Ballarat – provided the heating or air conditioning were not heavily used. For this sort of trip, a short DC top-up in Avoca itself, or at one of the multiple new DC charger sites on the major routes would be recommended. (These include Clunes, Creswick, multiple sites in Ballarat, etc). For further charging options and availability, see: <https://www.plugshare.com/>).



Example Subaru Solterra return trip range. Image: Google maps

CHARGING SPEEDS/REQUIREMENTS

Charging port

The Subaru Solterra is fitted with a CCS2 socket allowing it to charge via Type 2 AC chargers¹ as well as CCS2 DC fast-chargers.



CCS2 charging plug and socket

Notes:

1. The Subaru Solterra can be charged at any AC EVSE, however an adaptor will be needed to use the (few) remaining older EVSEs fitted with Type 1 (J1772) plugs.

CHARGING SPEEDS/REQUIREMENTS (CONTINUED)

AC charging:

Like all new EVs sold in Australia, the Subaru Solterra is fitted with a type 2 AC charging socket.

Charging rates:

Single phase: maximum of 7 kW (32A)

Three phase: maximum of 11 kW (16A, per phase)

Charging speeds vary on the capacity of the EVSE (Electric Vehicle Supply Equipment) the car is connected to. Approximate AC charging times for the Solterra are shown in table 2.

AC: 0 – 100% time				DC: 0 – 80% time	
10 A (power point)	15 A 1 phase (Caravan outlet)	32 A 1 ph. (Home EVSE)	16 or 32 A (3 phase public AC EVSE)	DC Fast charge (50kW)	DC Fast charge (150kW+)
35h*	19h	9.5h	6.5 h	65m	30m

Table 2: Approx. charging times for the Subaru Solterra

* Using Subaru supplied 2kW portable charger

DC fast charging

The Solterra uses the CCS2 DC fast-charge connector and can charge at up to 150 kW DC.

V2X capability:

The Subaru Solterra currently does not include any V2X capability.

V2X is the generic term covering the options of getting 230V AC power from the battery and supplying it as:

- V2L: vehicle to load (230V power available from outlet in car)
- V2H: vehicle to home (supply home via special connection)
- V2G: vehicle to grid (supply home or grid via spec. connection)

HOME CHARGING CONSIDERATIONS

General

To get the shortest home charging time for the Subaru Solterra, a three phase, 11 kW three phase AC charger would be needed.

However, depending on your existing power supply and/or charging needs, it may only be practicable to fit a lower rated EVSE. (See notes below). Lower capacity EVSEs will increase charging times, as shown in table 2.

Important notes for any home EVSE installation:

1. High charging rates are generally not needed for overnight charging.
2. Homes do not normally have three phase AC connected.
3. Switchboard and/or electrical supply upgrades may be needed if your home is more than 20 years old. For more information on this item – see information pages at EVchoice.com.au or read articles in:
 - (a) Renew magazine edition 143. (EVSE wiring)
 - (b) Renew magazine edition 156. (EVSE buyer's guide)

SPECIFICATIONS

Seating: 5

Boot volumes in litres (1 litre = 10 x 10 x 10 cm)

- Seats up: 410
- Rear seats folded: Not specified
- Froot (front boot): NA

Dimensions:

- Overall length: 4,690 mm
- Overall height: 1,650 mm
- Ground clearance: 212 mm
- Overall width (edge of doors): 1,860 mm
- Overall width (edge of mirrors): 1,860 mm

Battery:

- 71.4 kWh (64 usable: TBC)

Energy consumption: (WLTP)

- 18 kWh/100 km (TBC)

Kerb weight:

- 2,015 kg (Base model)
- 2,060 kg (Touring)

Charging:

- 1 phase AC: 7 kW maximum
- 3 phase AC: 11 kW maximum
- DC: 150 kW maximum

Charge port location:

- Left side front (in front of passenger door)

Drive configuration:

- all-wheel drive

Towing:

- 750 kg unbraked/750 kg braked

Performance:

- Maximum power: 160 kW
- 0 to 100 km/h: 6.9 sec.

IMPORTANT NOTES:

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