# Range Definition

Source: <https://www.polestar.com/au/electric-driving/real-world-range-electric-cars/>

**WLTP-certified range explained**

The Worldwide Harmonised Light Vehicle Test Procedure (WLTP) measures the range of a car travelling at an average speed of 48 km in summer temperatures from a 100% to 0% state of charge. Although the certified WLTP range is not always achievable in real life, it does help to compare between different car makes and models.

**Real-world range explained**

Many factors inside and outside an electric car can impact its actual range, such as weight, weather, road conditions, and driving behaviour. These factors change across different circumstances, which means that the real-world range will also change. Furthermore, an EV is rarely used until the battery is empty, meaning that the real-world range appears to be lower than the WLTP range.

Source: <https://evse.com.au/blog/how-far-can-electric-cars-travel-on-one-charge/>

**Other factors of range reducing**

An EV’s battery can lose its range overtime but not as fast as you may fear. Most EV batteries are currently estimated to last at least a decade before they need to be replaced. They don’t suddenly stop working but instead slowly degrade overtime. The average decline across all vehicles is stated to be around 2.3% per year. For example, if your EV has a driving range of 300km, you’ll only lose about 34.5km of accessible range over 5 years.

# Range of different EV model

Source: <https://www.caranddriver.com/features/g32634624/ev-longest-driving-range/>

Lucid Air: 516 Miles

Tesla Model S: 405 Miles

Hyundai Ioniq 6: 361 Miles

Tesla Model 3: 358 Miles

Mercedes EQS Sedan: 350 Miles

Tesla Model X: 348 Miles

Tesla Model Y: 330 Miles

GMC Hummer EV Pickup: 329 Miles

Rivian R1T: 328 Miles

BMW iX: 324 Miles

Source: <https://www.nunawadinghyundai.com.au/new-vehicles/kona-electric/?gclid=Cj0KCQjw8qmhBhClARIsANAtbodFsdQvGMcrd7vvENnNYwr7Xmqks6EMyAHmprA06sYaAR3Qbt3Wfv4aAnnhEALw_wcB>

Hyundai Kona Electric 449km

Source:

[https://www.bmw.com/en-au/models/i-series/ix1/showroom/bmw-ix1.html]( https://www.bmw.com/en-au/models/i-series/ix1/showroom/bmw-ix1.html)

BMW iX1 438km

Source: <https://www.bmw.com/en-au/models/i-series/ix/showroom/bmw-ix.html>

BMW iX 620km

Source: <https://www.bmw.com/en-au/models/m-series/bmw-ix-m60/showroom/bmw-ix-m60-highlights.html>

BMW iX M60 566km

Source: <https://www.bmw.com/en-au/models/i-series/i7/showroom/bmw-i7.html>

BMW i7 625km

Source: <https://www.bmw.com/en-au/models/i-series/i4-gran-coupe/showroom/i4-gran-coupe.html>

BMW i4 520km

Source:[https://www.bmw.com/en-au/models/m-series/i4-m50/showroom/bmw-i4-m50- highlights.html](https://www.bmw.com/en-au/models/m-series/i4-m50/showroom/bmw-i4-m50-%20highlights.html)

BMW i4 M50 465km

Source: <https://www.bmw.com/en-au/models/x-series/ix3-suv/showroom/ix3-suv.html>

BMW iX3 460km

# Other information

Source: <https://www.polestar.com/au/electric-driving/>

The average Australian drives 38 kilometres a day. A distance that all modern EVs can cover for several days before they need a recharge. Owners of cars with bigger batteries, such as Polestar 2, can make charging a weekly occurrence.

# Conclusion

Among the EV models above, the minimum range is 438 km. After the models used 5 years, the minimum range is 389 km.