# VW ID.4

PURE 125 KW BUSINESS ELECTRIC RWD
AUTOMATIC

## Sustainability Rating

2025 | ★★★★½ | 84%

### Clean Air
9.0 /10

### Energy Efficiency
7.6 /10

### Greenhouse Gases
8.9 /10

## Driving Experience

### Consumption & Range
ADEQUATE

### Cold Winter Performance
ADEQUATE

### Charging Capability
ADEQUATE

## Our verdict

The ID.4 is a small electric SUV by Volkswagen. Tested here is the 'Pure' version with 125 kW. It comes with a relatively small battery of 52 kWh nominal capacity but weighs almost 2 tonnes. Despite the good consumption figures, the weight is a factor that caps the car's sustainability scores to a yet very creditable result of 4½ stars with an average score of 84%.

- The ID.4 has no tailpipe emissions and excels in mitigating harmful brake dust through regenerative braking and the use of rear drum brakes. Production and energy supply slightly reduce its score.
- Energy use is typical for a small SUV. Cabin heating raises demand temporarily, but urban and real-world tests show efficient consumption (14.7–16.6 kWh/100 km).
- Low consumption, a small battery, and Europe's clean electricity mix boost the ID.4's environmental rating, despite its relatively high weight.

Disclaimer

## Clean Air

9.0 /10

### Comments

The electric ID.4 naturally doesn't have any tailpipe emissions. It collects half of the available points for tyre abrasion but receives all of them for brake abrasion. This excellent score is thanks to a high brake energy recuperation share and the use of an enclosed brake system (drums) on the rear axle. The pollutant emissions of the vehicle production and energy supply have a moderately negative impact on the good performance in this part of the assessment.

## Exhaust emissions

Exhaust pollutant emissions are produced from combustion engines. Although current emission legislation is very strict, this type of emission directly affects air quality, and not all vehicles perform equally well. Read more

GOOD 10.0 /10

### In laboratory

Green NCAP performs a wide range of tests on cars in the laboratory. This is the best way to ensure controlled conditions and guarantee that all cars are tested in the same way, making their results comparable. Read more

GOOD 10.0 /10

| | NMHC | $NO_x$ | $NH_3$ | CO | PN | PM | Score |
|---|---|---|---|---|---|---|---|
| Legal test (WLTP) | ● | ● | ● | ● | ● | ● | 8.0 /8 |
| Warm weather | ● | ● | ● | ● | ● | ● | 10.0 /10 |
| Highway | ● | ● | ● | ● | ● | ● | 10.0 /10 |
| Winter cold start | ● | ● | ● | ● | ● | ● | 10.0 /10 |
| Winter warm start | ● | ● | ● | ● | ● | ● | 10.0 /10 |

### On road

An on-road driving test , using portable emissions measuring equipment complements Green NCAP's laboratory tests. Read more

GOOD 10.0 /10

| | NMHC | $NO_x$ | $NH_3$ | CO | PN | PM | Score |
|---|---|---|---|---|---|---|---|
| Real-world mixed drive | ● | ● | ● | ● | ● | ● | 10.0 /10 |
| Short city trip | ● | ● | ● | ● | ● | ● | 10.0 /10 |
| Congestion | ● | ● | ● | ● | ● | ● | 2.0 /2 |

● good ● adequate ● marginal ● weak ● poor ● not applicable

# Clean Air

**9.0** /10

## Non-exhaust emissions

Driving a vehicle also produces emissions different from those of the exhaust pipe. Green NCAP evaluates vehicle properties that contribute to tyre and brake abrasion.

ADEQUATE **7.5**/10

### Tyre wear

Tyre abrasion releases small particles during driving, and some vehicle properties have major impact on it. Heavier vehicles, wheel alignment causing increased slip angle, and aggressive acceleration responses all increase tyre wear and particle emissions. Read more

MARGINAL **3.0**/6

| | Result | Score |
|---|---|---|
| Influence of mass | | 1.0/3 |
| Wheel alignment | | 1.0/1 |
| Accelerator response | | 1.0/2 |

### Brake wear

Brake dust, produced by friction brakes, can be mitigated through filters, enclosed brake systems (like drums), or by reducing friction brake use with regenerative braking in electrified vehicles. Containment keeps dust inside the system, while recuperation lowers brake wear. However, heavier vehicles still generate more brake abrasion due to their greater stopping demands. Read more

GOOD **6.0**/6

| | Result | Score |
|---|---|---|
| Brake dust mitigation | | 0.0/4 |
| Brake dust containment | | 3.0/6 |
| Recuperative braking - warm test | | 4.7/6 |

good adequate marginal weak poor not applicable

## Clean Air

**9.0** /10

## Additional Life Cycle Assessment information

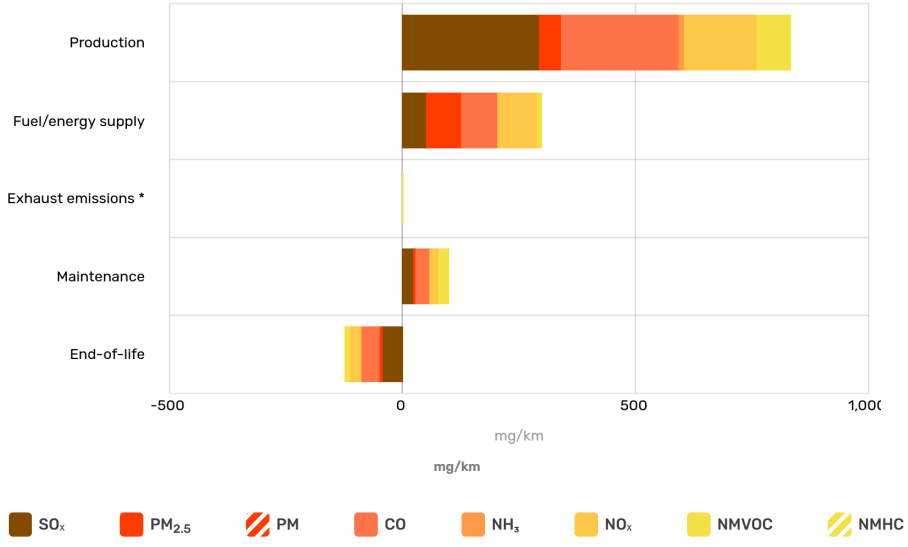
Life Cycle Assessment (LCA) investigates the environmental impact of a car over its entire lifetime, 'from cradle to grave'. In this section, pollutants are estimated in the various stages of a vehicle's life other than use. The chart also displays the measured emissions related to usage, which are taken as an average from the tests and are scored separately in the 'Exhaust emissions' part above. The end-of-life approach uses results in negative values because the benefit of materials recovery and recycling exceeds the effort of obtaining and processing virgin raw materials.

ADEQUATE

**7.2** /10

### Pollutants

Most of the vehicle exhaust pollutant species are also emitted in others life cycle phases. These are health- and nature-damaging compounds, the amount of which should be reduced as well.




* Exhaust emissions are not contributing to the score in Additional Life Cycle Assessment information because they are scored in the Exhaust emissions section above

good | adequate | marginal | weak | poor | not applicable

## Energy Efficiency

7.6 /10

### Comments

The consumption values are as expected for a vehicle of this type. Heating the cabin quickly in cold winter conditions increases the electricity demand notably, but once the desired comfort level is reached, the consumption figures will drop significantly. With a SUV, it is no surprise that highway driving requires relatively high energy consumption. On the positive side, the real-world test and the short urban trip demonstrated good results – 16.6 and 14.7 kWh/100 km, respectively.

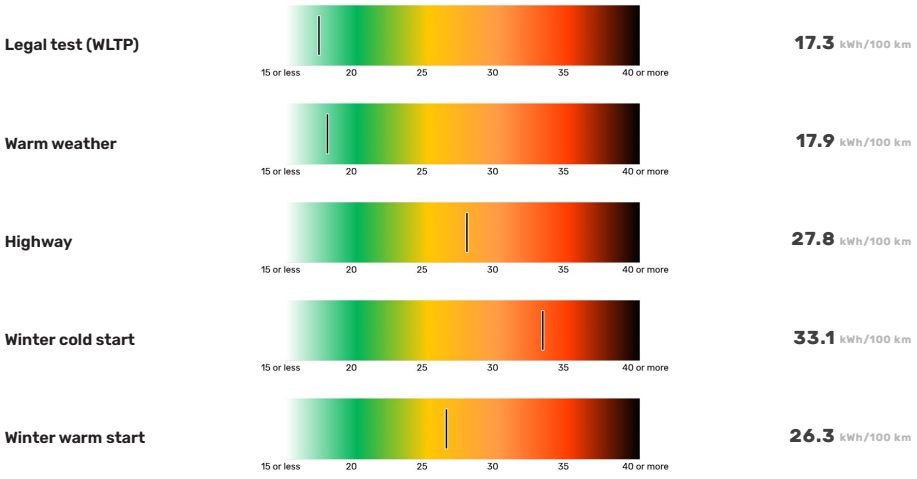
## Energy demand

ADEQUATE 7.5/10

### Propulsion energy consumption in laboratory

GOOD 9.1 /10

The vehicle's measured consumption figures are displayed in the bar chart. The colour scheme positions the values relative to low and high figures in a typical range. The ranges are different for combustion engine and pure electric vehicles.




good adequate marginal weak poor not applicable

# Energy Efficiency

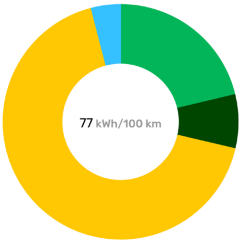
7.6 /10

## Additional Life Cycle Assessment information

ADEQUATE 7.9/10

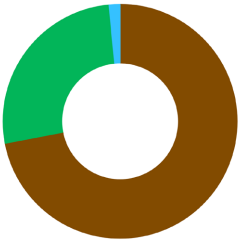
Life Cycle Assessment (LCA) investigates the environmental impact of a car over its entire lifetime 'from cradle to grave'. In this section, the total vehicle life cycle primary energy demand is displayed. The scoring does not consider the direct propulsion energy use, because it is scored separately in the 'Propulsion energy consumption in laboratory'.

### Total LCA energy consumption




- Production & recycling 21.3%
- Battery production 7.4%
- Fuel/energy supply * 67.3%
- Maintenance 4.0%

### Energy source share in total LCA consumption



- Fossil 72.0%
- Renewable 26.5%
- Other 1.5%

Direct propulsion energy share is not shown, it is included in 'Fuel/energy supply'.

## Rolling resistance

Rated here is the vehicle's resistance to movement at low speeds. Different factors have an impact on it, but the most significant one is mass.

ADEQUATE 8.3/10

good adequate marginal weak poor not applicable

## Greenhouse Gases

8.9 /10

### Comments

The consumption figures and the small battery help the ID.4 score well in this index. The relatively green European average electricity mix benefits the operation phase of the car. The production of the vehicle and its battery are accounted for.

## Exhaust GHG emissions

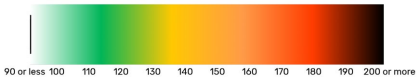
Combustion of conventional fuels releases greenhouse gases at the vehicle's tailpipe. The most significant of these gases are the emissions of $CO_2$. Green NCAP's assessment considers methane ($CH_4$) and laughing gas ($N_2O$) as well. Together, these are counted with their global warming potential to a sum known as $CO_2$ equivalent.

GOOD

10.0 /10

### In laboratory

Green NCAP performs a wide range of tests on cars in the laboratory. This is the best way to ensure controlled conditions and guarantee that all cars are tested in the same way, making their results comparable. Read more




| | |
|---|---|
| Legal test (WLTP) | 0.0 g $CO_2$-eq./km |
| Warm weather | 0.0 g $CO_2$-eq./km |
| Highway | 0.0 g $CO_2$-eq./km |
| Winter cold start | 0.0 g $CO_2$-eq./km |
| Winter warm start | 0.0 g $CO_2$-eq./km |

good adequate marginal weak poor not applicable

## Greenhouse Gases

**8.9** /10

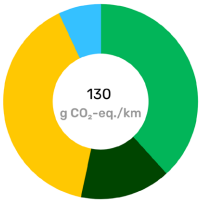
## Additional Life Cycle Assessment information

Life Cycle Assessment (LCA) investigates the environmental impact of a car over its entire lifetime, 'from cradle to grave'. In this section, the total vehicle life cycle greenhouse gas emissions are displayed.

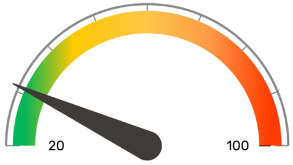
MARGINAL

**5.3** /10

### Total LCA GHG emissions




- Production & recycling 38.3%
- Battery production 15.0%
- Tailpipe emissions * 0.0%
- Fuel/energy supply 39.7%
- Maintenance 7.0%




tonnes $CO_2$-equivalent/vehicle

Vehicle Life Cycle average emissions **31** (+/-)
(best **28** | worst **36**)

* The scoring does not consider the direct exhaust GHG emissions at the tailpipe, because they are scored separately in 'Exhaust GHG emissions' above.

good | adequate | marginal | weak | poor | not applicable

# Driving Experience

## Consumption & Range

ADEQUATE

## Cold Winter Performance

ADEQUATE

## Charging Capability

ADEQUATE

**Green NCAP Comment**

- The estimated real-world consumption values of the ID.4 are in the 'adequate' range for all scenarios – warm weather and cold winter, urban, rural, highway and mixed driving. However, due to the relatively small battery of 52 kWh usable capacity, the driving range is seen as 'poor'. The consumption readings on the board computer display are accurate.
- Drivers are advised to preheat the vehicle before cold winter trips, if possible. By doing so, an increased driving range can be achieved. The possible values are not high for the tested ID.4, but are still a valuable contribution to a longer driving range in cold conditions. The ID.4 impresses with a very quick heat-up of the cabin in cold ambient conditions, ensuring good thermal comfort for all passengers. It offers good standard equipment level, climatisation control scheduling and remote control possibilities, as well as smart cabin management, which will reduce energy consumption if the vehicle is not fully occupied. Its cabin insulation is found to be 'adequate' and improving it would probably further reduce climatization energy demand in both heating and cooling scenarios.
- The vehicle's home charging efficiency is unsurprising with a standard grid-to-battery-output value of 89.4%. The fast DC charging is seen as adequate. The ID.4 doesn't offer any kind of bidirectional charging functionalities.

# Consumption & Range

ADEQUATE

## Estimated actual consumption

ADEQUATE

What consumption can be expected in real world conditions?

In-laboratory measured consumption values are only partially representative of real-world use. Green NCAP's estimates aim at providing more realistic figures, which are based on measured results, modified by correction factors.

| Conditions | Urban | Rural | Highway | Mixed | |
|---|---|---|---|---|---|
| Warm weather | 18.2 | 18.7 | 21.6 | 19.2 | kWh/100 km |
| Cold Winter | 32.5 | 26.2 | 30.2 | 29.7 | kWh/100 km |

## Driving range

POOR

What driving range can be expected in real world conditions?

Of special importance to consumers is the real-world driving range of electric vehicles. Green NCAP estimates this based on measured data, modified by correction factors.

| Conditions | Urban | Rural | Highway | Mixed | |
|---|---|---|---|---|---|
| Warm weather | 320 | 310 | 269 | 304 | km |
| Cold Winter | 179 | 222 | 193 | 196 | km |

## Accuracy of display

GOOD

Is the consumption figure on the display correct?

good adequate poor not applicable

# Cold Winter Performance

ADEQUATE

## Driving range benefit of pre-warming

POOR

How much further can you drive in winter, if the car is pre-warmed?

A cold vehicle has increased energy consumption at the start of its trip, mostly due to the cabin heating demand. Pre-warming the car while it is plugged, when possible, can significantly benefit its driving range in cold weather conditions. Green NCAP's winter tests are performed at -7°C.

| Type | Driving Range Benefit | Result |
|---|---|---|
| Urban trip | +79 km | |
| Mixed trip | +46 km | |

## Cabin heating

GOOD

Does the vehicle get warm quickly in winter?

This indicates the time needed to reach 16°C in seconds at different positions in the cabin after the cold vehicle has been started at -7°C ambient temperature.

| | Front | Rear |
|---|---|---|
| Head area | 199 s | 311 s |
| Footwell | 221 s | |

The rear footwell area left reached the temperature in 249 seconds and in the right in 299 seconds.

good adequate poor not applicable

# Cold Winter Performance

ADEQUATE

## Additional heating functions

What functions can be used to improve heating comfort?

Unlike a combustion car, which usually uses the engine's waste heat to provide warmth to the cabin, in electric vehicles, the energy needed comes from the battery. Therefore, there is a trade-off between thermal comfort and energy consumption. Some additional heating functions can deliver good thermal comfort performance at lower energy use compared to heating up the entire cabin. If they can be scheduled or remotely activated before a trip, while the vehicle is still plugged, both comfort and driving range can be notably improved.

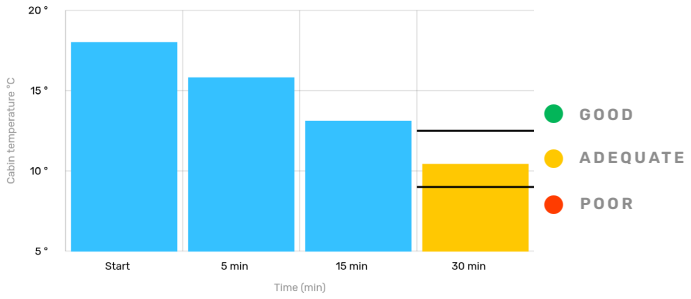
| | Y/N | Fitment |
|---|---|---|
| Heat pump | ✓ | Optional |
| Seating heating front | ✓ | Standard |
| Seating heating rear | ✗ | Optional |
| Steering wheel heating | ✓ | Standard |
| Sheduled pre-heating of seats | ✓ | Standard |
| Scheduled steering wheel pre-heating | ✓ | Standard |
| Scheduled cabin air pre-heating | ✓ | Standard |
| Smart cabin heating management | ✓ | Standard |

## Cabin thermal insulation

ADEQUATE

How well does the cabin maintain its temperature?

Assessed here is the average cabin temperature drop after 30 minutes, starting from 18°C when the outside temperature is -7°C and the vehicle is inactive.




good adequate poor not applicable

# Charging Capabilities

ADEQUATE

## Battery pre-conditioning

Does the vehicle have the ability to optimize the battery temperature for fast charging?

Fast charging is quicker when the battery temperature is in a certain range, and many vehicles possess the function to actively prepare for a coming fast charging event. Most use the charger destination in the navigational system to control the process, and some would offer a manual activation function.

| | Manual | Automatic |
|---|---|---|
| Battery pre-conditioning | ✓ | ✓ |

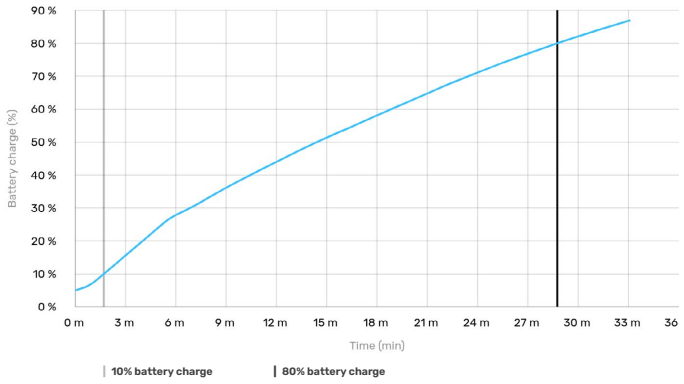
## Fast charging

ADEQUATE

Green NCAP's fast charging test verifies the vehicle's ability to recharge fast, which is crucial at long trips or tight schedules. Although constantly improving, not all vehicles offer the same capabilities.

### Charging time

How quickly can the battery charge?




good adequate poor not applicable

# Charging Capabilities

ADEQUATE

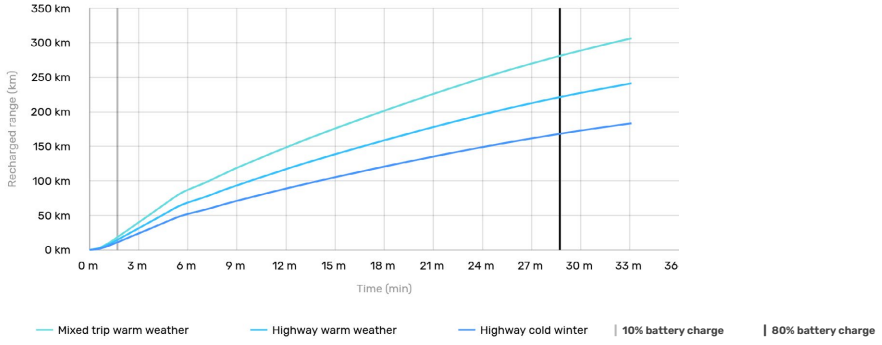
## Fast charging

ADEQUATE

Green NCAP's fast charging test verifies the vehicle's ability to recharge fast, which is crucial at long trips or tight schedules. Although constantly improving, not all vehicles offer the same capabilities.

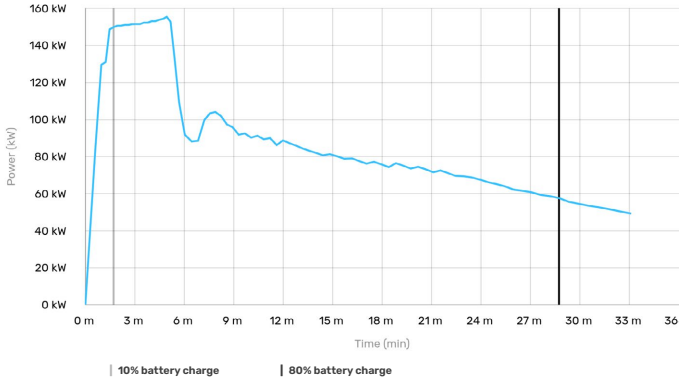
### Recharged range gain per charging time

How long do you need to fast charge to drive a certain distance?




### Charging power

How quickly does energy flow into the battery, depending on its charge level?




good adequate poor not applicable

# Charging Capabilities

ADEQUATE

## Home charging efficiency

ADEQUATE

Is charging at home efficiently utilizing the energy withdrawn from the grid?

The assessed efficiency value is the grid-to-battery-output efficiency, which describes what share of the energy taken from the electricity grid is available for the vehicle to use for propulsion and other auxiliary functions. The value encompasses not only the charger efficiency but considers several other losses as well.

| | | |
|---|---|---|
| **Home charging efficiency** | 89% | |
| **Maximum home charging power** | 11.0 kW | Standard |

## Bidirectional charging

POOR

How capable is the vehicle of supplying energy from its battery to other devices or systems?

Bi-directional charging is available in some vehicles and is gaining increasing popularity. It comes with different power and functionality levels. However, battery usage for purposes additional to regular vehicle driving and charging might be disadvantageous for its durability and manufacturers might introduce limitations to protect it.

### Power output

Not available

### Compatibility

**Vehicle-to-Load (V2L)**
The inlet or the interior socket can provide AC power through an electrical domestic socket.

**Vehicle-to-Household (V2H)**
The vehicle can provide power to a household through a charger.

**Vehicle-to-Grid (V2G)**
The vehicle can return power to the grid.

### Grid integration

**Basic**
No integration (just a socket for a stand-alone load). No scheduling option. Very basic visualisation.

**Limited**
Energy management system through the vehicle app (timers availability and power monitoring). Dedicated interface in the car, with mobile app monitoring.

**Advanced**
Advanced settings available such as tariff and consumption control, linked to distributor energy prices. Advanced real time energy flow visualization. AI powered suggestions for optimal usage.

good adequate poor not applicable

## Specifications

**Vehicle class**
Small SUV

**System power/torque**
125 kW/310 Nm

**Engine size**
n.a.

**Declared consumption**
17.3 kWh/100 km

**Declared driving range**
Overall 350 km
City 449 km

**Declared $CO_2$**
n.a.

**Declared battery capacity**
Usable (net) 52.0 kWh
Installed (gross) 55.0 kWh

**Mass**
1,987 kg

**Heating concept**
Waste heat & PTC heater & heat pump

**Tyres**
235/55 R19

**Emissions class**
AX

**Tested car**
WVGZZZE2XSP00xxxx

**Publication date**
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