Cadillac Optiq

PREMIUM SPORT ELECTRIC AWD AUTOMATIC

Sustainability Rating

2026 | ★★★½☆ | 67%

Clean Air
8.1 /10

Energy Efficiency
5.4 /10

Greenhouse Gases
6.9 /10

Driving Experience

Consumption & Range
ADEQUATE

Cold Winter Performance
GOOD

Charging Capability
POOR

Our verdict

The Cadillac Optiq is a large and luxurious SUV with an empty mass of almost 2.4 tonnes and a large 80.6 kWh battery. Despite the advantages of a fully electric powertrain, the size and the increased consumption values take a toll on the sustainability rating.

- The Cadillac Optiq scores poorly for tyre abrasion due to its heavy weight, but achieves strong brake abrasion performance by maximizing regenerative braking. It loses some Clean Air score because production and electricity supply emissions are high for a heavy EV with a large battery.
- The Optiq shows relatively high electricity consumption, which increases further in cold and high-load Highway Tests. Substantial additional energy demand is accumulated from production, maintenance, and electricity generation, which significantly lowers the Energy Efficiency score.
- A reduced GHG score is received because high consumption and energy-intensive production processes raise total life cycle emissions. Despite having no direct emissions while driving, the Optiq's climate impact remains higher than that of smaller, more efficient EVs.

Disclaimer

Think before you print

Clean Air

8.1 /10

Comments

The Cadillac Optiq is fully electric and produces no exhaust emissions. The heavy weight is disadvantageous for tyre abrasion, leading to a low score. The brake abrasion result is much better thanks to very high share of kinetic energy recuperation and the associated avoidance of friction brakes use. The overall score in the Clean Air Index is slightly reduced due to the pollutants associated with the production of such a heavy vehicle and its battery, as well as the supply of electric energy.

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

8.1 /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.

MARGINAL

5.5 /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

2.1 /6

	Result	Score
Influence of mass		0.1 /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

ADEQUATE

4.5 /6

	Result	Score
Brake dust mitigation		0.0 /4
Brake dust containment		0.0 /6
Recuperative braking - warm test		4.5 /6

good adequate marginal weak poor not applicable

Clean Air

8.1 /10

Additional Life Cycle Assessment information

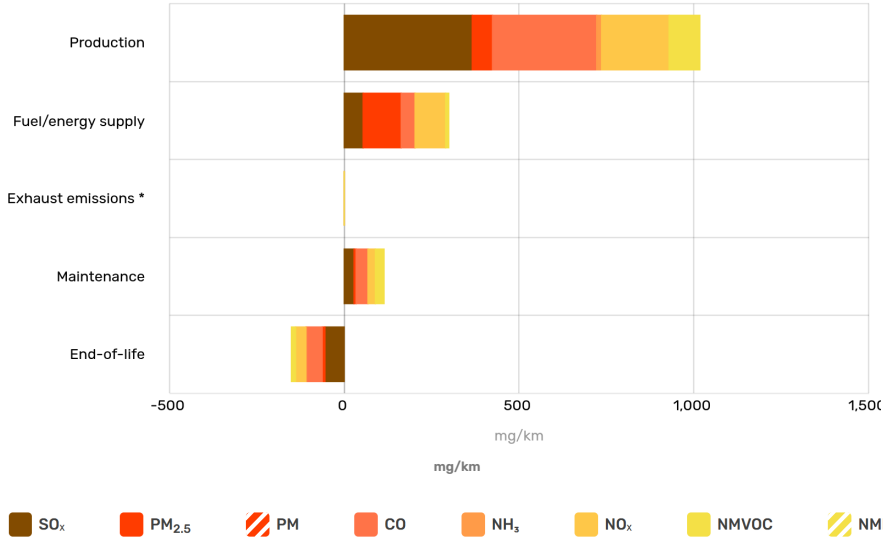
Life Cycle Assessment (LCA) investigates the environmental impact of a car over its entire lifetime, 'from cradle to grave'. In this section, pollutants are estimated in the various stages of a vehicle's life other than use. The chart also displays the measured emissions related to usage, which are taken 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.

MARGINAL

4.9 /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

5.4 /10

Comments

The Optiq's consumption values are rather high and are additionally increased in cold temperatures testing and in the high-power demand Highway Test. The on-road drive was performed on a dry road at 14°C and the recorded electricity demand is 21.1 kWh/100 km. The additional energy demand of vehicle production and maintenance, as well as the primary energy needed for the generation and supply of the electricity, significantly lower the score of the Energy Efficiency Index.

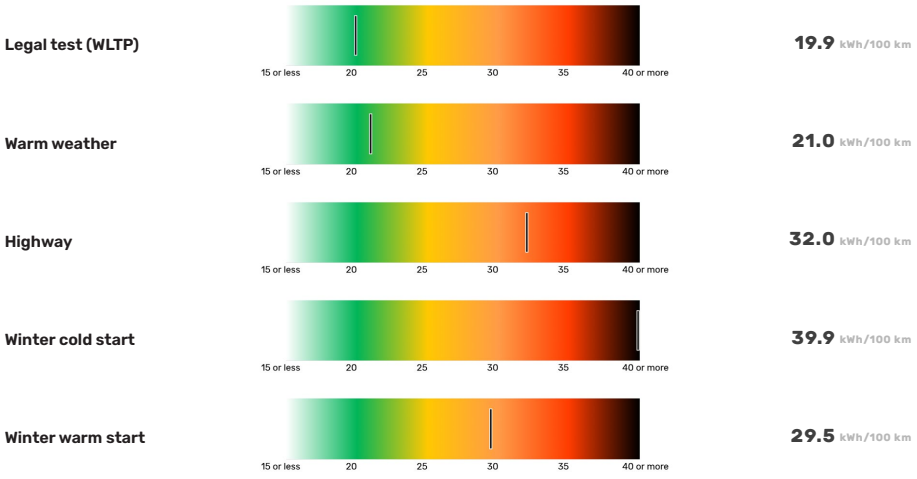
Energy demand

MARGINAL **5.7** /10

Propulsion energy consumption in laboratory

ADEQUATE **8.3** /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

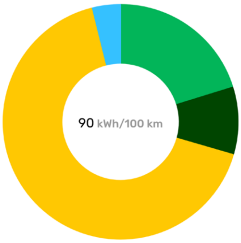
5.4 /10

Additional Life Cycle Assessment information

ADEQUATE 6.3/10

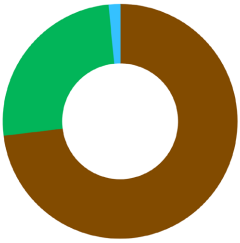
Life Cycle Assessment (LCA) investigates the environmental impact of a car over its entire lifetime 'from cradle to grave'. In this section, the total vehicle life cycle primary energy demand is displayed. The scoring does not consider the direct propulsion energy use, because it is scored separately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

Total LCA energy consumption



- Production & recycling 20.2%
- Battery production 9.3%
- Fuel/energy supply * 66.6%
- Maintenance 3.9%

Energy source share in total LCA consumption



- Fossil 73.1%
- Renewable 25.4%
- 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.

WEAK 0.3/10

good adequate marginal weak poor not applicable

Greenhouse Gases

6.9 /10

Comments

The score in the Greenhouse Gas Index is negatively impacted by the relatively high consumption values and the emissions related to vehicle and battery production, maintenance and the generation and supply of electricity for propulsion. Although the car does not emit any direct gases while it is operating, the other life cycle phases contribute to a total of 169.5 g CO_2-eq./km, which still underlines the EV's advantage in reducing climate impact compared to fossil fuel driven vehicles, but is behind the achievement of smaller and less consuming EVs.

Exhaust GHG emissions

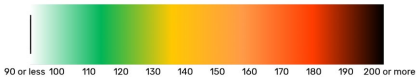
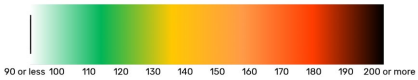
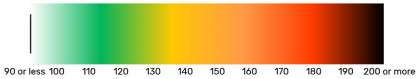
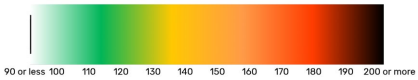
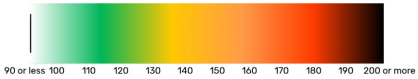
Combustion of conventional fuels releases greenhouse gases at the vehicle's tailpipe. The most significant of these gases are the emissions of CO_2. Green NCAP's assessment considers methane (CH_4) and laughing gas (N_2O) as well. Together, these are counted with their global warming potential to a sum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

6.9 /10

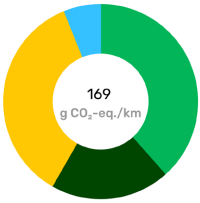
Additional Life Cycle Assessment information

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.

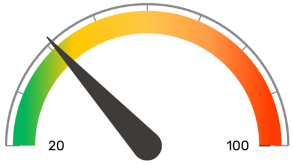
WEAK

2.3 /10

Total LCA GHG emissions



- Production & recycling 38.5%
- Battery production 19.8%
- Tailpipe emissions * 0.0%
- Fuel/energy supply 35.6%
- Maintenance 6.1%



tonnes CO_2-equivalent/vehicle

Vehicle Life Cycle average emissions **41** (+/-)
(best **35** | worst **43**)

* 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

GOOD

Charging Capability

POOR

Green NCAP Comment

- The estimated real-world consumption values of the Optiq are rated as 'poor' in both the warm and cold weather tests. With the 75 kWh battery (usable capacity), however, the driving range improves to 'adequate'. While the consumption values shown on the display can generally be trusted, the deviations between measured and displayed figures in cold weather testing are huge. Drivers need to remember that the display figures do not reflect the energy amount charged from the grid, but only the energy the vehicle uses from its battery. The amount needed to charge it is naturally higher.
- The heating performance of the car in -7°C cold start conditions is good and the very quick heat-up in all footwell areas is impressive. The Optiq's driving range can benefit well from preconditioning prior to a cold weather trip, while it is still plugged in. This way, an additional 143 km of range can be gained in urban trips. For a mixed trip, the figure is 76 km. The cabin thermal insulation is good and helps the vehicle retain the warmth in the car, reducing energy consumption in cold weather. The big Cadillac is equipped as standard with a series of heating functions, which can help effectively provide thermal comfort at lower energy cost. A smart cabin heating management reduces the energy demand by reducing the heat flow to non-occupied seats.
- The standard home AC charging efficiency is adequate, while the fast DC charging is relatively slow and is rated as poor. Convenient for drivers is the possibility to activate the battery preconditioning prior to a fast-charging event not only through the navigation system, but also manually by pressing a button. The Optiq does not provide any bidirectional charging functionalities.

Consumption & Range

ADEQUATE

Estimated actual consumption

POOR

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	21.1	21.6	25.7	22.4	kWh/100 km
Cold Winter	39.4	29.6	34.5	34.7	kWh/100 km

Driving range

ADEQUATE

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	407	398	334	383	km
Cold Winter	218	290	249	248	km

Accuracy of display

ADEQUATE

Is the consumption figure on the display correct?

good adequate poor not applicable

Cold Winter Performance

GOOD

Driving range benefit of pre-warming

GOOD

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	+143 km	
Mixed trip	+76 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	373 s	408 s
Footwell	157 s	

The rear footwell area left reached the temperature in 118 seconds and in the right in 86 seconds.

good adequate poor not applicable

Cold Winter Performance

GOOD

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.

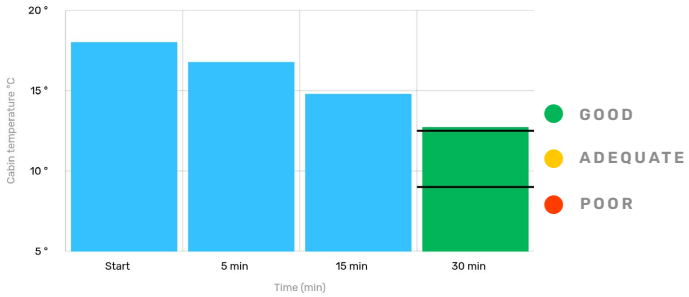
	Y/N	Fitment
Heat pump	✓	Standard
Seating heating front	✓	Standard
Seating heating rear	✓	Standard
Steering wheel heating	✓	Standard
Sheduled pre-heating of seats	✓	Standard
Scheduled steering wheel pre-heating	✓	Standard
Scheduled cabin air pre-heating	✓	Standard
Smart cabin heating management	✓	Standard

Cabin thermal insulation

GOOD

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

POOR

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	✓	✓

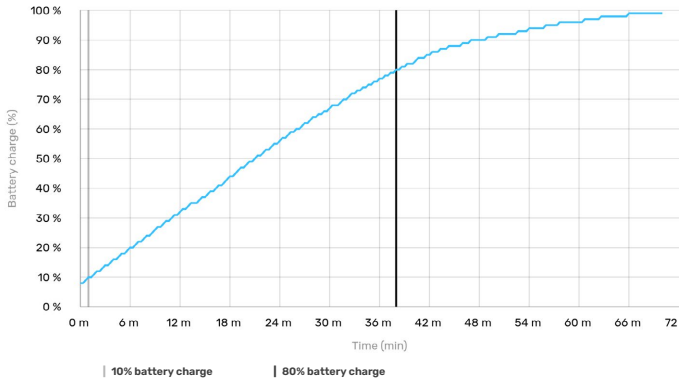
Fast charging

POOR

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

POOR

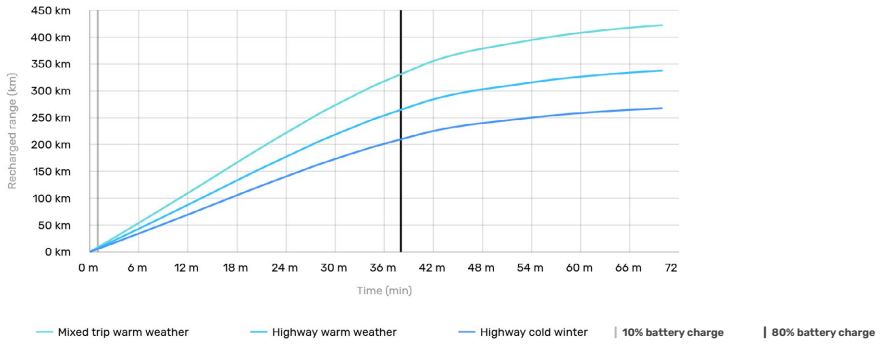
Fast charging

POOR

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.

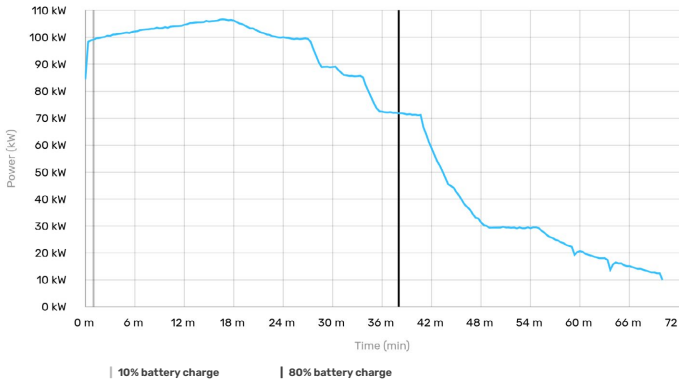
Recharged range gain per charging time

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

POOR

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	**22.0** kW

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
223 kW/480 Nm

Engine size
n.a.

Declared consumption
19.9 kWh/100 km

Declared driving range
Overall 425 km
City 577 km

Declared CO_2
n.a.

Declared battery capacity
Usable (net) 75.0 kWh
Installed (gross) 80.6 kWh

Mass
2,376 kg

Heating concept
Waste heat & PTC heater & heat pump

Tyres
275/40R21

Emissions class
AX

Tested car
3GYK38MV9SS24xxxx

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