



2021

Kia Niro

1.6 GDI plug-in hybrid 4x2 automatic



4.9 
/10

Clean Air
Index

7.6 
/10

Energy Efficiency
Index

6.0 
/10

Greenhouse Gas
Index

4.9
/10



Clean Air Tests



Laboratory Test

	NMHC	NO _x	NH ₃	CO	PN
6.7/10 Cold Test	adequate	good	adequate	adequate	weak
7.5/10 Warm Test	good	good	good	good	weak
2.7/10 Cold Ambient Test	poor	good	poor	adequate	weak
0.0/10 Highway	adequate	good	weak	poor	weak



Road Test

6.4/10 On-Road Drive	n.a.	adequate	n.a.	good	weak
0.0/8 On-Road Heavy Load	n.a.	adequate	n.a.	poor	weak
3.4/5 On-Road Light Load	n.a.	good	n.a.	good	weak
3.9/5 On-Road Short Trip	n.a.	good	n.a.	good	good
2.0/2 Congestion	n.a.	good	n.a.	n.a.	n.a.



Robustness



n.a.



good



adequate



marginal



weak



poor

Comments

Pollutant emissions when the vehicle is working with the battery depleted are low due to the good aftertreatment system composed of low-pressure EGR, a three-way catalyst and a particulate filter. Together with the hybridization strategy, this makes the Niro robust in terms of pollutant emissions in many of the driving environments and ambient conditions tested in Green NCAP.

Energy Efficiency Tests



Laboratory Test

Energy

8.2/10 Cold Test



8.2/10 Warm Test



5.7/10 Cold Ambient Test



4.1/10 Highway



Consumption

Driving Range

	Petrol	Electric	Petrol	Electric	
Average	5.0 l	32.7 kWh /100 km	860	50	km
Worst-case	5.9 l	0.0 kWh /100 km	729	n.a.	km

Consumption in WLTC+ Battery Depleting Cycle: 9.9 kWh/100 km electric + 2.6 l/100 km fuel



n.a.



good



adequate



marginal



weak



poor

Comments

The electric range of 49.5 km is close to Kia's claimed value. However, Green NCAP's test laboratory was unable to drive the car in 'pure electric' mode. The combustion engine was started even though the high-voltage battery was fully charged, not to help power the vehicle but in order to heat the cabin, as Green NCAP's test is performed at an ambient temperature of 14°C. Although this ignition of the engine was short-lived, the energy consumed was a significant proportion of the total energy consumed.



Greenhouse gases

CO₂

N₂O

CH₄

4.5/7 Cold Test



4.3/7 Warm Test



3.4/7 Cold Ambient Test



2.3/7 Highway



n.a.



good



adequate



marginal



weak



poor

Comments

The Kia Niro scores an impressive 6/10 for this part of the assessment due to its low emissions greenhouse gases CH₄ and N₂O. Since greenhouse CO₂ emissions are also quite balanced in all test the vehicle is able to achieve this respectable result.

Our Verdict

The Kia Niro was tested by Green NCAP as a plug-in hybrid (PHEV). Its 1.6 litre petrol engine is combined with a 8.9 kWh battery, which should be recharged from the mains in order to be used most efficiently. In general, the implementation of the hybrid technology, and the strategy adopted by Kia, works well and results are good. Green NCAP's test laboratory noted that the Niro started its petrol engine even when the battery was sufficiently charged, in order to warm the cabin or to provide additional torque when needed in the high-load tests. The Niro performs well in all three areas of assessment but its plug-in hybrid power system is most effective in improving energy efficiency. Overall, the Niro emerges from Green NCAP's tests with a good 3½ star rating.

Disclaimer

Publication Date
02 2021

Tested Car
KNACD81DGL531xxxx

Emissions Class
Euro 6d-Temp

Tyres
205/60 R16

Mass
1,546 kg


Engine Size
1,580 cc

Engine Power/Torque
103.8 kW/265 Nm

Published CO₂
31 g/km

Declared Battery Capacity
8.90 kWh

Published Driving Range
49 km

Sponsored by  GVI



Think before you print