



2021

# Kia Niro

1.6 GDI plug-in hybrid 4x2 automatic



4.9   
/10

Clean Air  
Index

7.6   
/10

Energy Efficiency  
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6.0   
/10

Greenhouse Gas  
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4.9  
/10



## Clean Air Tests



### Laboratory Test

	NMHC	NO <sub>x</sub>	NH <sub>3</sub>	CO	PN
<b>6.7/10</b> Cold Test	●	●	●	●	●
<b>7.5/10</b> Warm Test	●	●	●	●	●
<b>2.7/10</b> Cold Ambient Test	●	●	●	●	●
<b>0.0/10</b> Highway	●	●	●	●	●



### Road Test

<b>6.4/10</b> On-Road Drive	●	●	●	●	●
<b>0.0/8</b> On-Road Heavy Load	●	●	●	●	●
<b>3.4/5</b> On-Road Light Load	●	●	●	●	●
<b>3.9/5</b> On-Road Short Trip	●	●	●	●	●
<b>2.0/2</b> Congestion	●	●	●	●	●



### 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		→	9.9 kWh/100 km
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	n.a. /100 km	729	n.a.	km

Consumption in electric mode: 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

CO<sub>2</sub>

N<sub>2</sub>O

CH<sub>4</sub>

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 CH<sub>4</sub> and N<sub>2</sub>O. Since greenhouse CO<sub>2</sub> 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  
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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 CO<sub>2</sub>  
31 g/km

Declared Battery Capacity  
8.90 kWh

Published Driving Range  
49 km

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