TOYOTA

2021

# Toyota Prius

1.8 plug-in hybrid 4x2 CVT


| 6.0 /10 | 8.3 /10 | 7.0 /10 |
|---|---|---|
| Clean Air Index | Energy Efficiency Index | Greenhouse Gas Index |

# 6.0 /10 Clean Air Tests

| | Laboratory Test | NMHC | $NO_x$ | $NH_3$ | CO | PN |
|---|---|---|---|---|---|---|
| **6.9**/10 | Cold Test | | | | | |
| **7.7**/10 | Warm Test | | | | | |
| **3.1**/10 | Cold Ambient Test | | | | | |
| **7.5**/10 | Highway | | | | | |
| | **Road Test** | | | | | |
| **7.1**/10 | On-Road Drive | | | | | |
| **2.5**/8 | On-Road Heavy Load | | | | | |
| **2.3**/5 | On-Road Light Load | | | | | |
| **4.0**/5 | On-Road Short Trip | | | | | |
| **2.0**/2 | Congestion | | | | | |
| | **Robustness** | | | | | |

n.a. good adequate marginal weak poor

**Comments**

In general, the Prius does a good job of controlling pollutant emissions, even when driven in petrol mode. However, the car tested by Green NCAP was not equipped with a gasoline particulate filter (GPF) and particulate number was somewhat elevated in the cold ambient temperature test. Green NCAP is informed that current production vehicles are equipped with a GPF.

# 8.3 /10 Energy Efficiency Tests

| Laboratory Test | | Energy |
|---|---|---|
| 9.1/10 | Cold Test | |
| 9.3/10 | Warm Test | |
| 6.3/10 | Cold Ambient Test | |
| 6.1/10 | Highway | |

| | Consumption | | | Driving Range | | |
|---|---|---|---|---|---|---|
| | Petrol | Electric | | Petrol | Electric | |
| Average | 4.8 l | 19.7 | kWh /100 km | 888 | 39 | km |
| Worst-case | 5.0 l | 0.0 | kWh /100 km | 864 | n.a. | km |

Consumption in WLTC+ Battery Depleting Cycle: 13.7 kWh/100 km electric + 0.7 l/100 km fuel

n.a. good adequate marginal weak poor

**Comments**

The Prius PHEV performs extremely well in this part of the assessment, with an average consumption of just 4.8 l/100 km in petrol mode. In its mainly-electric mode, energy consumption is modest although, even in this mode, there was some consumption of fuel.

# 7.0 /10 Greenhouse Gases Tests

| | Greenhouse gases | $CO_2$ | $N_2O$ | $CH_4$ |
|---|---|---|---|---|
| **5.2**/7 | Cold Test | | | |
| **4.9**/7 | Warm Test | | | |
| **3.6**/7 | Cold Ambient Test | | | |
| **3.8**/7 | Highway | | | |

n.a. good adequate marginal weak poor

**Comments**

Emissions of the unregulated pollutants $N_2O$ (laughing gas) and $CH_4$ (Methane) are vanishingly small, and those of carbon dioxide ($CO_2$) are low, giving an index of 7/10 in this part of the assessment.

## Our Verdict

Toyota has been committed to electrification for many years and, in 1997, the Prius became the earliest hybrid vehicle in mainstream production. Toyota's experience in the field has paid off and the plug-in hybrid version of this, the fourth-generation Prius, impresses on many levels. Pollutant emissions are well controlled and the values recorded here would be improved by the gasoline particulate filter fitted to current production cars. Energy efficiency is extremely good, the dual motor generator drive system, powered by an 8.8 kWh lithium-ion battery, interacting well with the 1.8 litre petrol engine, giving an index of 8.3 in this part of the assessment. Overall, the Prius PHEV shows what can be achieved by a well-engineered plug-in hybrid, and emerges from Green NCAP's tests with a worthy 4 star rating.

## Disclaimer

| | | | |
|---|---|---|---|
| Publication Date<br>02 2021 | Tested Car<br>JTDKA3FPX0307xxxx | Emissions Class<br>Euro 6c | Tyres<br>195/65 R15 |
| Mass<br>1,536 kg | Engine Size<br>1,798 cc | Engine Power/Torque<br>90 kW/142 Nm | Published $CO_2$<br>28 g/km |
| | Declared Battery Capacity<br>8.79 kWh | Published Driving Range<br>n.a. | |