

Methodology for Fuel Cost Comparison

Under S.I. 703:2022, SEAI are required to publish a Fuel Cost Comparison, with associated methodology, updated on a quarterly basis. Obligated fuel stations are required to display this Fuel Cost Comparison in accordance with the S.I. The methodology for determining the quarterly Fuel Cost Comparison was designed using the guidance provided by the PSA on fuel price comparison: assisting Member States with the implementation of Article 7.3 of Directive 2014/94/EU (fuel price comparison), Publications Office, 2021. <https://data.europa.eu/doi/10.2832/89250>

All data sources are accessed within the last month of the preceding quarter they are published, e.g. December 2022 for Q1-2023 publications, and therefore use the most up to date published data available.

Fuel prices

1. Petrol and diesel prices were sourced from the [AA.ie](#)
2. Electricity cost is based on 90% home charging at night and 10% at public [fast chargers](#). Home price taken from SEAI Domestic Fuel Price Comparison report and public fast charging price from ESB.
3. CNG cost is taken from Circle K who are believed to be one of the only public suppliers in Ireland at this time. CNG price at filling stations is currently in €/kg. To enable calculations in the same units (€/L), the CNG values were multiplied by 0.717 (the density of methane). As per recommendation from the [PSA on fuel price comparison](#).
4. LPG costs are taken from <https://ie.fuelo.net/?lang=en>
5. Hydrogen. There are no hydrogen filling stations available in the Republic of Ireland so this price is therefore omitted.

Vehicle Data

- Vehicles were chosen in line with the instructions in the PSA document. The top 3 of bestselling vehicles in the previous 12 months per fuel type for the selected segment. [Source](#).
- Consumption figures across all fuel types comes from c-segment vehicles.
- Vehicle statistics are easily available for download on the Manufacturers websites. [Hyundai Tucson Diesel](#), [Volkswagen Tiguan](#), [Skoda Kodiaq](#), [Volkswagen Polo](#), [Volkswagen Golf](#), [Volkswagen ID4](#), [Volkswagen ID3](#), [Tesla Model3](#),
- There was no hydrogen example currently available in the Irish market.
- LPG & CNG see point 4-5 in fuel economy.

Fuel Economy

- The WLTP figures used are a combined average of the consumption figures on the manufacturers spec sheets across the range of currently available models.
- In the absence of WTLTP figures for CNG and LPG converted vehicles the sample figures had to be calculated to provide the best estimate, by considering comparative fuel economy for CNG and LPG vehicles available in the public domain.

- The fuel economy of a petrol vehicle converted to run on CNG is about the same, so you can compare fuel costs on an “apples to apples” basis. If you get 6l/100km with petrol, you will average 6l/100km with CNG. [CNG vs Traditional Fueling | Virginia Natural Gas](#)
- LPG is considered 15 per cent less efficient than petrol. + 15% to the petrol L/100km = LPG L/100km figure. <https://climatenewsaustralia.com/lpg-conversion-what-are-the-pros-and-cons/?adlt=strict>
- Hydrogen was omitted in the absence of a suitable vehicle for comparison.

Result

The resultant Fuel Cost Comparison is tabulated for each of the fuel types by multiplying the fuel prices (€/L) with the fuel economy (L/100km), for the selected vehicle data. This provides the Fuel Cost Comparison which is tabulated and populated in the display poster.

$$\text{€/L} \times \text{L/100km} = \text{€/100km}$$

EV Charging Assumptions.

EV charging- According to the [CSO](#) 58.9% of all journeys nationally are less than 15minutes long and 89.2% are less than 45 minutes. Based on this, SEAI use an assumption that 90% of charging will be at home taking advantage of night rates and 10% of charging will be at public fast chargers. This would be representative of the lower bound of costs possible for EV motoring, but very representative of the most common and recommended charging regime also.