



Explanatory Statement

Excise (Volume of LPG – Temperature and Pressure Correction) Determination 2026

General outline of instrument

1. This instrument is made under subsection 65(1) of the *Excise Act 1901* (the Act).
2. This instrument sets out rules for working out the volume of liquefied petroleum gas (LPG) that is subject to excise duty. The worked-out volume is then used to calculate the amount of excise duty payable on the LPG.
3. The instrument is a legislative instrument for the purposes of the *Legislation Act 2003*.
4. Under subsection 33(3) of the *Acts Interpretation Act 1901*, where an Act confers a power to make, grant or issue any instrument of a legislative or administrative character (including rules, regulations or by-laws) the power shall be construed as including a power exercisable in the like manner and subject to the like conditions (if any) to repeal, rescind, revoke, amend, or vary any such instrument.

Date of effect

5. This instrument commences on the day after it is registered on the Federal Register of Legislation.

Background

6. Excisable goods (that is, goods subject to excise duty) under excise control generally cannot be used or sold domestically until they are released from excise control (that is, 'delivered for home consumption' – see section 61 of the Act). Once released, the goods may be sold, used, or consumed within Australia and excise duty becomes payable (see section 54 of the Act).
7. Under section 65 of the Act, the CEO (that is, the Commissioner of Taxation) can determine rules for working out the volume, weight, alcohol percentage, or energy content of excisable goods delivered for home consumption. The worked-out quantity is then used to calculate the amount of excise duty payable (see section 59 of the Act and section 5 of the *Excise Tariff Act 1921*).
8. The *Excise (Volume of LPG – Temperature and Pressure Correction) Determination 2016 (No. 2)* (2016 Determination) was made to provide certainty to manufacturers of LPG by setting out clear rules with methods to work out the volume of excisable LPG delivered for home consumption. These methods accounted for the fluctuations in the measured volume due to temperature and pressure variations. This ensured that the duty on the excisable LPG was calculated on a consistent and comparable volume, regardless of how the LPG was stored or metered.
9. This instrument repeals and replaces the 2016 Determination, which would otherwise sunset on 1 October 2026. This instrument has the same substantive effect as the 2016 Determination.

Effect of this instrument

10. Section 6 sets out the rules, which includes methods, for working out the volume of transport LPG on which excise duty is payable.

11. 'Transport LPG' is defined in the instrument as LPG that is intended to be used for an excisable LPG use and LPG that is delivered in the same container which is intended to be used both for an excisable LPG use and another use.

12. The methods that a person can choose under section 6 for an accounting period generally depend on their aggregated clearances. 'Aggregated transport clearances' are defined in the instrument as the total volume of transport LPG that a person expects (based on historical data) to deliver, or reasonably expects (if historical data is not available) to deliver, for home consumption from all excise-licensed premises during an accounting period.

Aggregated clearances of 150,000 litres or more

13. Under subsection 6(1), a person must use either the 'density-based volume method' or the 'standard corrections method' to determine the volume of LPG in litres where the person has aggregated clearances of transport LPG of 150,000 litres or more during an accounting period. A person must use only one method for the duration of the accounting period, which is generally the 12-month period they adopt for income tax purposes or another period that the CEO authorises in writing.

14. The density-based volume method may only be used to calculate the amount of excise duty payable where the transport LPG is delivered for home consumption as a quantity measured in kilograms (that is, it is not measured using volumetric measurement equipment). An appropriate conversion factor based on the measured density of the LPG at ambient temperature corrected to 15 degrees Celsius or the conversion factor as stipulated in the *Excise Regulation 2015* to convert the weight of LPG in kilograms to a volume of LPG in litres may be used.

15. The standard corrections method must be used where the transport LPG is delivered into home consumption as a quantity measured using volumetric measurement equipment. The method aligns with the Australian Standard AS 2649-2007 for the measurement of petroleum liquids and liquefied petroleum gases under standard reference conditions, which for LPG means a temperature of 15 degrees Celsius and the equilibrium vapour pressure at 15 degrees Celsius.

16. The instrument does not specify what volumetric measurement equipment to use or how the volume measured should be corrected to the standard reference conditions. However, entities engaged in the manufacture, supply, or handling of bulk LPG could rely on established petroleum measurement standards (such as, ASTM D1250 or American Petroleum Institute (API) *Manual of Petroleum Measurement Standards* volume-correction tables) and calibrated equipment to determine the volume of LPG. These standards, together with automated metering systems, can apply the relevant volume and pressure correction factors in real time, ensuring that the volume attributed to the LPG reflects the standard reference conditions.

Aggregated clearances of less than 150,000 litres

17. Under subsection 6(2), a person who has aggregated clearances of transport LPG less than 150,000 litres per accounting period may choose to use the density-based volume method, the standard corrections method or the ambient conditions method to determine the volume of LPG in litres. The 'ambient conditions method' is where the volume of LPG is measured at the ambient temperature and operating pressure at the time it is delivered for home consumption.

18. A person must use only one method for the duration of the accounting period, which is generally the 12-month period they adopt for income tax purposes or another period that the CEO authorises in writing.

19. Subsection 6(3) overrides subsection 6(2) such that, if a person is required under a periodic settlement permission to correct volumes of LPG to standard reference conditions, they can only use either the density-based volume method or the standard corrections method, but not the ambient conditions method.

20. A periodic settlement permission is a permission given under subsection 61C(1C) of the Act, in certain circumstances, authorising a person to deliver excisable goods for home consumption for an approved period of time prior to lodging the excise return and paying the required duty.

Any method, if authorised

21. Subsection 6(4) overrides subsections 6(1) and 6(2) and 6(3) such that, the CEO can authorise a person to use any of the methods in the instrument for an accounting period even where those subsections would otherwise limit the methods that the person can use.

Example 1 – density-based volume method

Arena LPG Services (ALS) are an excise licensed supplier of LPG, supplying over 500 million litres of LPG per annum to regional service stations in Australia for transport use. ALS measures the quantity of LPG leaving the licensed premises using a weighbridge. One of ALS's tanker vehicles was weighed immediately before and after receiving a quantity of transport LPG. Based on the difference between the two weights, the net mass of LPG delivered into home consumption was determined to be 15.682 tonnes. The volume of the LPG could be determined by applying the conversion factor 1.885 as stipulated in the Excise Regulation 2015 for every kilogram of LPG. Applying the Excise Regulation 2015 factor of 1.885 would result in a volume of 29,561 litres. The amount of excise duty to be paid is then calculated on 29,561 litres.

Alternatively, ALS may determine the volume of LPG by using the actual density of the LPG at standard reference conditions, being 541 kg per cubic metres, as specified in the product specification sheets provided by the LPG refinery. Applying this density to a measured mass of 15.682 tonnes results in a calculated volume of 28,987 litres, on which excise duty would then be payable. ALS may use only one of these methods for determining volume of LPG during the relevant 12-month accounting period.

Example 2 – standard corrections method

All Quality Fuels (AQF) is an excise-licensed distributor supplying over 250 million litres of LPG each year to independent service stations. During one such delivery, the LPG is delivered from the LPG tanker into a single 35,000 litre storage tank at the service station. The LPG is transferred at a pressure of 3,000 kilopascals, and the tanker's electronic metering system records an uncorrected volume of 30,000 litres at that delivery pressure and an ambient temperature of 27.5 degrees Celsius. At the time of delivery, the density and equilibrium vapour pressure of the LPG are also automatically measured by sensors in the vehicle and determined to be 515 kg per cubic metres and 510 kilopascals, respectively at 27.5 degrees Celsius.

To determine the volume of LPG delivered for the purposes of excise duty, AQF must adjust the volume recorded by the metering system to standard reference conditions. AQF uses an automated computer program that applies corrections for pressure and temperature to the measured volume. The program applies the ASTM pressure and volume correction tables, using a pressure correction factor of 1.0121 to convert the volume measured at the delivery pressure to the equivalent volume at equilibrium vapour pressure. It then applies a volume temperature correction factor of 0.9675, based on the measured LPG density at 27.5 degrees Celsius, to convert the volume to the standard reference temperature of 15 degrees Celsius. Applying these correction factors results in an adjusted volume of 29,367 litres on which excise duty would then be payable.

Example 3 – choice of standard corrections volume or ambient conditions method

Following on from Example 2, if AQF's aggregated clearances of transport LPG are less than 150,000 litres during an accounting period and transport LPG is delivered into home consumption using uncorrected volumetric measuring equipment, AQF may choose how the volume of fuel is determined for excise purposes. AQF may either apply the standard correction method to adjust the measured volume to 15 degrees Celsius and equilibrium vapour pressure, resulting in a corrected volume of 29,367 litres, or use the uncorrected measured volume recorded at ambient temperature and operating pressure, being 30,000 litres. Where the uncorrected measured volume is used, excise duty is calculated on 30,000 litres, consistent with the treatment available to persons whose aggregated clearances of transport LPG do not exceed 150,000 litres during an accounting period. Whichever method is chosen must be applied consistently for all deliveries of transport LPG during that accounting period.

Compliance cost assessment

22. To be advised.

Consultation

23. Subsection 17(1) of the *Legislation Act 2003* requires the Commissioner to be satisfied that appropriate and reasonably practicable consultation has been undertaken before they make a legislative instrument.

24. As part of the consultation process, you are invited to comment on the draft instrument and its accompanying draft explanatory statement.

Please forward your comments to the contact officer by the due date.

Due date:	5 June 2026
Contact officer:	Anthony Barnard
Email:	Anthony.Barnard@ato.gov.au
Phone:	03 9285 1974

Statement of compatibility with human rights

Prepared in accordance with Part 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*

Excise (Volume of LPG – Temperature and Pressure Correction) Determination 2026

This legislative instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

Overview of the legislative instrument

This instrument sets out rules for working out the volume of liquefied petroleum gas (LPG) that is subject to excise duty upon delivery for home consumption. This volume will be used to calculate the amount of excise duty payable.

Human rights implications

This legislative instrument does not engage any of the applicable rights or freedoms as it merely provides rules for working out the volume of LPG. It will provide greater certainty in relation to excise obligations around the measurement of LPG.

Conclusion

This legislative instrument is compatible with human rights as it does not raise any human rights issues.