



Explanatory Statement

Excise (Volume of LPG – Temperature and Pressure Correction) Determination 2016 (No. 2)

General outline of determination

1. This Explanatory Statement is provided in accordance with sections 15G(4) and 15J of the *Legislation Act 2003* (**'Legislation Act'**).
2. Under section 65 of the *Excise Act 1901* (**Excise Act**) the CEO may make rules for working out the volume of excisable goods.

Revoking of previous instrument

3. *Excise (Volume of LPG – Temperature and Pressure Correction) Determination 2016 (No. 1)* (**'previous instrument'**) was registered on 19 February 2016 and is repealed on the commencement of this determination.
4. The new instrument amends directions on the manner of incorporation of the extrinsic materials that are referenced within the determination in accordance with Section 14 of the *Legislation Act*.
5. Aside from the amended directions the circumstances set out in the previous determination remain unchanged.

Date of effect

6. The determination will have effect from the day after it is registered.

What is the determination about?

7. This instrument is made under section 65 of the *Excise Act*. It provides rules for working out the volume of Liquefied Petroleum Gas (LPG) that is being delivered for home consumption which will in turn be used for the purposes of working out the amount of excise duty payable on such fuel.

What is the effect of the determination?

8. The determination specifies the methods available for determining the volume of LPG (in litres).
9. The determination also specifies a total figure of aggregated clearances as a factor relevant for determining use of a particular method.
10. Compliance cost impact: Minor – There will be no or minimal impacts for both implementation and ongoing compliance costs. The legislative instrument is minor or machinery in nature.

Impact of the instrument

11. The volume of LPG must be determined using one of the approved methods.

Method 1 - Determining the volume of LPG in litres by use of a factor based on density.

Where a person has aggregated clearances of transport LPG exceeding 150,000 litres per accounting period and the LPG is delivered into home consumption as a quantity measured in kilograms and is not measured using volumetric measurement equipment to calculate the amount of excise duty payable, an appropriate conversion factor based on the measured density of the LPG at ambient temperature corrected to 15° Celsius or the conversion factor as stipulated in the Excise Regulation to convert the weight of LPG in kilograms to a volume of LPG in litres may be used.

Example 1: If a quantity of transport LPG delivered into home consumption has been weighed as having 15.682 tonnes, then the volume of the LPG would be determined by applying the conversion factor 1.885 as stipulated in the Excise Regulation for every kilogram of LPG (unless the person elects to measure the density of the quantity of LPG and apply the specific conversion factor). Application of the Excise Regulation factor 1.885 would result in a volume of 29,561 litres. Excise duty is then calculated on 29,561 litres for a person who has aggregated clearances of transport LPG exceeding 150,000 litres per accounting period.

Method 2 - Determining the volume of LPG in litres at 15° Celsius by use of the equilibrium vapour pressure and a temperature correction factor.

Where a person has aggregated clearances of transport LPG exceeding 150,000 litres per accounting period and the measurement of a quantity of the LPG does not meet the conditions prescribed in Section 24(1) of the Excise Regulation for converting from kilograms to litres, then that person must use the American Petroleum Institute (API) *Manual of Petroleum Measurement Standards, Chapter 11.2.2M – Compressibility Factors for Hydrocarbons: 350-637 kg/m³ Density (15° C) and -46° C to 60° C Metering Temperature* to correct the volume of LPG metered under operating pressure to the corresponding volume at the equilibrium vapour pressure (bubble point) for the metered temperature followed by use of the American Society for Testing and Materials (ASTM) *Petroleum Measurement Tables for Light Hydrocarbon Liquids – Density Range 0.500 to 0.653 Kg/L at 15° C*, to correct the volume of the LPG to 15° Celsius.

Computerised software editions of the above measurement standards installed in metering equipment may also be used to calculate the volume of LPG in litres at 15° Celsius during dispensation.

Example 2: A quantity of transport LPG is dispensed from an LPG tanker which meters an uncorrected volume of 30,000 litres under a pressure of 3000 kilopascals at a temperature of 27.5° C. During the delivery, the density and equilibrium vapour pressure of the LPG is also measured (at 27.5° C) and shown to be 515 kg/m³ and 510 kilopascals respectively. To determine the corrected volume of LPG delivered, the metered volume would need to be adjusted by the pressure correction factor 1.0121 (as per the API Petroleum Measurement Compressibility Factor Tables for Hydrocarbons: 350-637 kg/m³) to determine the volume at equilibrium vapour pressure and the volume temperature correction factor 0.9675 (as per the ASTM

Petroleum Measurement Tables for Light Hydrocarbon Liquids) to determine the volume at 15° C. Application of the relevant factors would result in an adjusted volume of 29,367 litres. Excise duty is then calculated on 29,367 litres for a person who has aggregated clearances of transport LPG exceeding 150,000 litres per accounting period.

Method 3 – Determining the volume of LPG in litres at ambient temperature and operating pressure for aggregated clearances of transport LPG not exceeding 150,000 litres.

Where a person does not have aggregated clearances of transport LPG exceeding 150,000 litres per accounting period and does not have a requirement on their permission issued under section 61C of the *Excise Act* to correct to 15° Celsius and equilibrium vapour pressure on all their LPG clearances they may either correct the volume of fuel using either Method 1 or 2 or use the measured volume of fuel at ambient temperature and operating pressure (Method 3).

Example 3: Following on from Example 2, if a person's aggregated clearances of transport LPG are less than 150,000 litres per accounting period, and that person delivers transport LPG into home consumption using uncorrected volumetric measuring equipment, that person may either apply Method 2 and correct the volume of fuel to 15° Celsius and equilibrium vapour pressure (i.e. 29,367 litres) or use the uncorrected measured volume of fuel at ambient temperature and operating pressure (i.e. 30,000 litres). If the uncorrected measured volume is used, excise duty is then calculated on 30,000 litres for a person who has aggregated clearances of transport LPG not exceeding 150,000 litres per accounting period.

12. When determining the volume of aggregated clearances of transport LPG a person must use one Method for the duration of an accounting period, as stipulated in Section 24(2) of the Excise Regulation unless authorised in writing by the CEO to do otherwise.

Example 4: A company has a licensed LPG refinery. The company's aggregated clearances of transport LPG exceed 150,000 litres per accounting period.

The company supplies LPG to wholesale customers who collect the product from the LPG refinery ('wholesale sales'). In these circumstances, the LPG supplied is measured in tonnes by weighbridge measurement and is not measured using temperature and pressure corrected volumetric measurement equipment. Thus for 'wholesale sales' the company must continue to measure in kilograms as per Method 1 for the duration of the accounting period.

The company also separately delivers LPG from the refinery using their own tankers ('tanker deliveries to customers'). In these circumstances, measurement occurs in litres when delivered to clients.

As the company has aggregated clearances of transport LPG exceeding 150,000 litres and are not measuring in kilograms the company must use Method 2 for 'tanker deliveries to customers' and continue to use Method 2 for 'tanker deliveries to customers' for the duration of the accounting period.

Alternatively, if the company wishes to change measurement units they must obtain permission from the Commissioner of Taxation, or wait until the end of the accounting period.

Aggregated clearances means the volume of LPG delivered for home consumption by you in an accounting period of 12 months from all excise licensed establishment/s based on historical data or the volume of LPG reasonably expected to be delivered for home consumption by you in an accounting period if no historical data is available.

13. To correct the operating pressure to the equilibrium vapour pressure and volume of the LPG to 15° Celsius a person must use the versions of the American Petroleum Institute (API) *Manual of Petroleum Measurement Standards, Chapter 11.2.2M – Compressibility Factors for Hydrocarbons: 350-637 kg/m³ Density (15° C) and -46° C to 60° C Metering Temperature* and the American Society for Testing and Materials (ASTM) *Petroleum Measurement Tables for Light Hydrocarbon Liquids – Density Range 0.500 to 0.653 Kg/L at 15° C* respectively, that are current at the time of commencement of the determination.
14. The period adopted for the calculation of aggregated clearances is the accounting period adopted for income tax purposes as provided in section 18 of the *Income Tax Assessment Act 1936*.
15. LPG means:
 - a) liquid propane; or
 - b) a liquid mixture of propane and butane; or
 - c) a liquid mixture of propane and other hydrocarbons that consists mainly of propane; or
 - d) a liquid mixture of propane, butane and other hydrocarbons that consists mainly of propane and butane

Consultation

16. Subsection 17(1) of the *Legislation Act* requires that the CEO undertake an appropriate level of consultation that is reasonably practicable to undertake before making a legislative instrument.
17. Because there is no substantive change to the scope of the previous instrument, representative organisations were notified to invite members to submit comments on the content of this instrument. No substantive feedback was received.

Related Rulings/Determinations:

Previous Rulings/Determinations:

Excise (Volume of LPG – Temperature and Pressure Correction) Determination 2011 (No. 1) – F2011L02378.

Excise (Volume of LPG – Temperature and Pressure Correction) Determination 2015 (No. 1) – F2015L01745.

Excise (Volume of LPG – Temperature and Pressure Correction) Determination 2016 (No. 1) – F2016L00130.

Subject references:

Excise

Excisable goods

Excise Duty

Legislative references:

Excise Act 1901 section 65

Excise Tariff Act 1921 The Schedule

Legislative Instruments Act 2003 section 26

Income Tax Assessment Act 1936 section 18

Case references:

Other references:

American Society for Testing and Materials (ASTM) Petroleum Measurement Tables for Light Hydrocarbon Liquids – Density Range 0.500 to 0.653 Kg/L at 15° C (at the time of publication this reference is available from <http://www.mandibooks.com>),

American Petroleum Institute (API) Manual of Petroleum Measurement Standards, Chapter 11.2.2M – Compressibility Factors for Hydrocarbons: 350-637 Kg/m³ Density (15° C) and -46° C to 60° C Metering Temperature (at the time of publication this reference is available from <http://www.techstreet.com>)

Statement of Compatibility with Human Rights

This Statement is prepared in accordance with Part 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

Excise (Volume of LPG – Temperature and Pressure Correction) Determination 2016 (No. 2)

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

Excise (Volume of LPG – Temperature and Pressure Correction) Determination 2016 (No. 2) amends and replaces *Excise (Volume of LPG – Temperature and Pressure Correction) Determination 2016 (No. 1)*. The determination provides rules for working out the volume of Liquefied Petroleum Gas (LPG) that is being delivered for home consumption which is then used for the purposes of working out the amount of excise duty payable on such fuel.

Human rights implications

This legislative instrument does not engage any of the applicable rights or freedoms as it is considered to be minor or machinery in nature. It provides 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.