How To Report Propane under the BC LCFS for Compliance Periods up to December 31, 2023

Supplementary instructions for British Columbia Propane Suppliers

Prepared for the Canadian Propane Association

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by

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1) Document Summary

This document provides compliance reporting background and instructions for propane suppliers who have sold propane in BC for transportation uses up to December 31, 2023, and who do not wish to rely on the default carbon intensity, or who have not acquired their propane with an approved carbon intensity under an exclusion agreement.

Section 3), below, provides background and information regarding the legal obligations that the person submitting the compliance report should be aware of, while Section 4) provides detailed instructions for reporting.

The information in this document does not constitute legal advice. It is intended to help a propane supplier comply with the reporting requirements of the *Greenhouse Gas Reduction* (*Renewable and Low Carbon Fuel Requirements*) *Act*, and is complete and accurate to the best of the abilities of MJ Rensing Consulting Inc. This document does not constitute a legal opinion and is not a replacement for qualified legal advice.

2) The BC LCFS

The Ministry of Energy, Mines and Low Carbon Innovation (the Ministry) provides the following description of the LCFS on their website at http://gov.bc.ca/lowcarbonfuels:

The Greenhouse Gas Reduction (Renewable & Low Carbon Fuel Requirements) Act and the Renewable & Low Carbon Fuel Requirements Regulation, known collectively as British Columbia's low carbon fuel standard (LCFS), was introduced to reduce the carbon intensity (CI) of fuels used in the province.

- The LCFS sets CI targets that decline each year.
- Fuel suppliers generate credits for supplying fuels with a CI below the targets and receive debits for supplying fuels with a CI above the targets.
- The debits and credits are proportional to the emissions a fuel generates over its full life cycle.
- Credits can be traded between fuel suppliers or banked for future use.
- At the end of each compliance period, suppliers must have a balance of zero or more credits to avoid non-compliance penalties.

The Act requires an annual compliance report for propane that has been supplied in BC for transportation use, and requires that the suppliers comply with the carbon intensity requirements for that fuel.

Note that beginning January 1, 2024, the *Greenhouse Gas Reduction (Renewable & Low Carbon Fuel Requirements) Act* (the Act) and the <u>Renewable & Low Carbon Fuel Requirements</u> (the Regulation) were replaced by the new *Low Carbon Fuels Act* and its regulations, which will implement the same policy but with updated values and procedures.



This document does not apply for reporting fuel that is supplied after December 31, 2023.

3) Background and Information for the Company Signing Authority

The person who officially submits the final compliance report (the Signing Authority) must be authorized by the company to act on its behalf. In most cases, this would be a person who is an officer or employee of the company.

Each reporting supplier is responsible for their own reporting accuracy and the person making the final submission is advised to have a reasonable understanding of the Regulation.

Section 4) "Instructions for Filing a Compliance Report" below, provides concise step-by-step instructions to someone who needs to fill out the compliance report. The following sections provide background information as well as details that a Signing Authority should consider before submitting the report.

a) Legal Obligation

We recommend that Signing Authorities (the person who submits the report on behalf of the company) familiarize themselves with the following guidance information provided by the Ministry in the following Information Bulletins available online from https://www2.gov.bc.ca/gov/content?id=4B2DC59D77F64C8491C5CDFCF8732F10.

- RLCF-003: Compliance Reporting Requirements
- RLCF-006: Carbon Intensity Records



- RLCF-009: Clarification of Part 3 fuel supplier in relation to emerging fuels
- RLCF-011: Approved Version of GHGenius and Global Warming Potentials
- RLCF-021: Administrative Monetary Penalties

Any person who supplies any quantity propane in BC for transportation must comply with the BC LCFS. If a specific quantity of propane that has been supplied for transportation cannot be identified, then the supplier is not considered to have supplied that fuel under the Act. See "RLCF-009: Clarification of Part 3 fuel supplier in relation to emerging fuels" for more information.

i) Reporting

Compliance obligations include filing an annual compliance report using the electronic Transportation Fuel Reporting System (TFRS). By logging in to TFRS with an authorized BC electronic ID, a user with the correct level of authority can make a legally binding declaration regarding the facts in the report.

ii) Carbon Intensity

During the first years of the LCFS the carbon intensity of propane was lower than the reduction targets set in the Regulation, and credits were generated by propane suppliers.

As the targets of the LCFS become increasingly more rigorous, the supply of high-carbon propane will begin to generate debits. Propane suppliers will be required to comply by supplying low-carbon propane, or by acquiring credits from other suppliers. Discussion of these issues is outside the scope of this document.

iii) Identification

TFRS uses the official Government of BC Electronic Identification System (BCeID) to ensure that all users are uniquely and correctly identified. Information regarding the BCeID system is available online at https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/transportation/renewable-low-carbon-fuels/tfrs bceid invitation final.pdf.

Each company reporting under the LCFS must have a BCeID identifier. As the BCeID documentation explains, only one primary BCeID is issued per company, but individuals with that ID can assign a secondary BCeID so that a different person can conduct business on behalf of the company.

TFRS uses the BCeID system to create a unique identifier for all individuals who use the system, and the information submitted to TFRS is linked to the person who enters that information for traceability. Using this functionality, it is possible to enable someone to fill out the compliance report without giving them authority to submit the report on behalf of the company, while the Signing Authority only needs to log in to review the entered information and formally submit the compliance report on behalf of the company.

A compliance report must be officially submitted by a person who has been authorized by the company on its behalf. By signing the report, the signatory is making a legal assertion that they

are authorized by the company to submit the report and that, to the best of their knowledge and ability, the report is a complete and accurate statement of the facts.

b) Background

i) Evidence

To report as required, you must have evidence (invoices, contracts, tax records, etc.) that documents:

- the source of the propane,
- the quantity of propane, and
- that it was supplied for transportation use.

This documentation provides the basis for your assertions when you report and must be kept for at least seven years following the compliance year, in accordance with the Regulation. This is the evidence that will be reviewed when you are audited for compliance, and failure to provide adequate evidence could result in penalties.

ii) Carbon Intensity

To date, there have not been any approved carbon intensities for propane supplied in BC, so this method of identifying the carbon intensity is not available to propane suppliers. The simplest option is to rely on the default carbon intensity for propane of 75.35 g CO₂e/MJ published in the Regulation. However, default values under the Regulation are set to the highest reasonable value for each fuel as a precaution because anyone may use the default value.

Much of the propane supplied in BC has a lower carbon intensity than the default value. Typical propane supplied in BC comes from two processes: as a byproduct of crude oil refining, or as a byproduct of natural gas purification. Statistics Canada tracks the quantities produced and used in BC, allowing for an average carbon intensity to be calculated, which then provides reasonable grounds for reporting a carbon intensity for propane that is lower than the default value.

Signing Authorities should familiarize themselves with the information provided by the Ministry in Information Bulletin RLCF-006, which explains that:

"For fuels where the director has not published the carbon intensity and a supplier does not wish to use a default value, the supplier may use GHGenius to calculate the carbon intensity. This approach to determining carbon intensity allows a supplier to use either primary data or regional averages to determine a fuel's life cycle GHG emissions. Suppliers who rely on this provision of the Act to determine carbon intensity must ensure that the Carbon Intensity Record also includes a record of inputs to GHGenius, and any additional information necessary ... to reproduce the results submitted. In addition, fuel suppliers are required to document and explain the values chosen. This may include a detailed narrative of the fuel lifecycle assessment, an explanation of any unique features of the lifecycle, contracts or bills of sale for coproducts, and any other information that supports the fuel producer's claims and assumptions regarding the life cycle assessment of their fuel pathway."

To enable use of this means of reporting, the Canadian Propane Association has commissioned (S&T)² Consultants Inc. to prepare a current carbon intensity report using the current approved version of GHGenius 4.03 (see Information Bulletin RLCF-011 – Approved Version of GHGenius). The (S&T)² report, called *Carbon Intensity of BC Propane Motor Fuel* is available from the Canadian Propane Association, and applies specifically for propane supplied in 2023.

In general, propane supplied in BC falls into one of four categories:

- 1) It was **acquired from outside of BC**. In this case, you must use the default value of 75.35 g CO₂e/MJ prescribed by the Regulation.
- 2) It was produced at a **fossil fuel refinery in BC**. In this case, the carbon intensity is 72.66 g CO₂e/MJ, obtained from the (S&T)² report *Carbon Intensity of BC Propane Motor Fuel*.
- 3) It was produced at a **natural gas plant in BC**. In this case, the carbon intensity is 64.63 g CO₂e/MJ, obtained from the (S&T)² report *Carbon Intensity of BC Propane Motor Fuel*.
- 4) It was acquired from a **propane distributor in BC**, and it is not known who produced it or how it was produced. In this case, it is reasonable to claim that the propane has the provincial average carbon intensity of 65.12 g CO₂e/MJ, obtained from the (S&T)² report *Carbon Intensity of BC Propane Motor Fuel*.

Suppliers who do not use the default carbon intensity are entitled to report a different carbon intensity under section 6(5)(d)(ii)(A) of the Act by filling out Schedule D of the compliance report in TFRS. The process of reporting automatically creates a Carbon Intensity Record, which must include:

- The carbon intensity of the Part 3 fuel.
- A record of inputs to GHGenius.
- Any additional information necessary to reproduce the results submitted.
- Documentation and an explanation of the values chosen. This may include a detailed narrative of the fuel lifecycle assessment, an explanation of any unique features of the lifecycle, contracts or bills of sale for co-products, and any other information that supports the fuel producer's claims and assumptions regarding the life cycle assessment of their fuel pathway.

By filling out Schedule D, the supplier will provide the required details. It is recommended that the (S&T)² report *Carbon Intensity of BC Propane Motor Fuel* be submitted (using the File Submissions tab) as part of the Compliance Report, as it will provide a detailed narrative of the fuel lifecycle assessment as well as an explanation of the unique features of the lifecycle and the documentation of the provincial quantities of propane obtained from refineries vs natural gas processing plants.

4) Instructions for Filing a Compliance Report

The following information is intended to provide specific information to supplement the general documentation provided by the Ministry of Energy, Mines and Low Carbon Innovation in the TFRS-BCeID manual (TFRS Manual)¹.



Users should read the TFRS Manual and briefly familiarize themselves with the various screens in TFRS before entering information.

a) Getting started

- 1) Ensure that you have a BCeID issued by your company, and can access TFRS at https://lowcarbonfuels.gov.bc.ca. If you do not have access, instructions for obtaining a BCeID and the appropriate TFRS access are available online at https://www2.gov.bc.ca/gov/content?id=7A58AF3855154747A0793F0C9A6E9089.
- 2) Confirm that documentation is available to quantify the specific amount of propane supplied for transportation, and determine how many litres were supplied in the compliance period (January 1 to December 31).
- 3) Determine whether the propane was obtained from:
 - a. outside of BC,
 - b. a petroleum refinery in BC,
 - c. a natural gas production facility in BC, or
 - d. another propane distributor in BC,

and confirm that written records supporting the source are available and will be retained for seven years from the compliance period, as required by the Regulation. If the propane was obtained from outside of BC, you can report simply by using the default value authorized by the Regulation.

b) Log in to TFRS

See Page 3 in the TFRS Manual.



Each person logging into TFRS should have a unique BCeID identifier.

Using your BCeID username and password, log in to TFRS. You should see a dashboard that is similar to *Figure 1: TFRS Dashboard*, below. Note that sections in the middle column of the page (such as "Credit Transactions") will not be visible if your company has not recorded any activity in those areas.

c) Create a new Compliance Report

Go to the "Compliance & Exclusion Reports" tab (circled in red in Figure 1).

¹ https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/transportation/renewable-low-carbon-fuels/transportation_fuels_reporting_system_-_bceid_manual.pdf



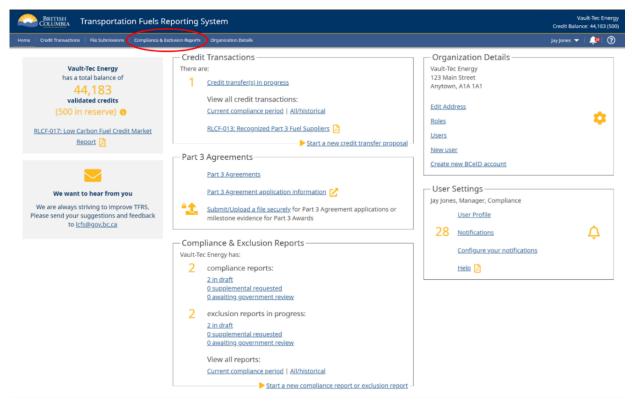


Figure 1: TFRS Dashboard

If no Compliance Report exists for the compliance year in which the fuel was supplied, you will need to create a new Compliance Report. Select the compliance year in which the fuel was supplied when creating the report.

The TFRS Compliance Report was designed so that a supplier would move through each tab (Schedule), review and edit the information, and enter new information as required. General TFRS instructions begin on Page 15 of the TFRS Manual. What follows in the next sections are instructions specific to reporting propane.

Creating the new compliance report will bring you to a page where the top portion resembles *Figure 2: Report Tabs*. Each of the following sections refers to one of the tabs circled in red.

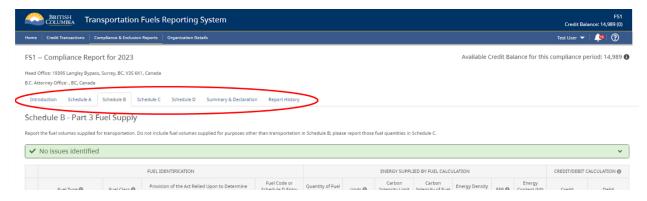


Figure 2: Report Tabs



d) Introduction Tab

On the Introduction tab, verify that the company information is correct.

e) Schedule A Tab

Schedule A is for suppliers of Part 2 Fuels to report their compliance with the renewable fuel content requirements for gasoline and diesel fuel. This does not apply to the supply of propane, so Schedule A should report zero fuel supplied if the only fuel you supply is propane.

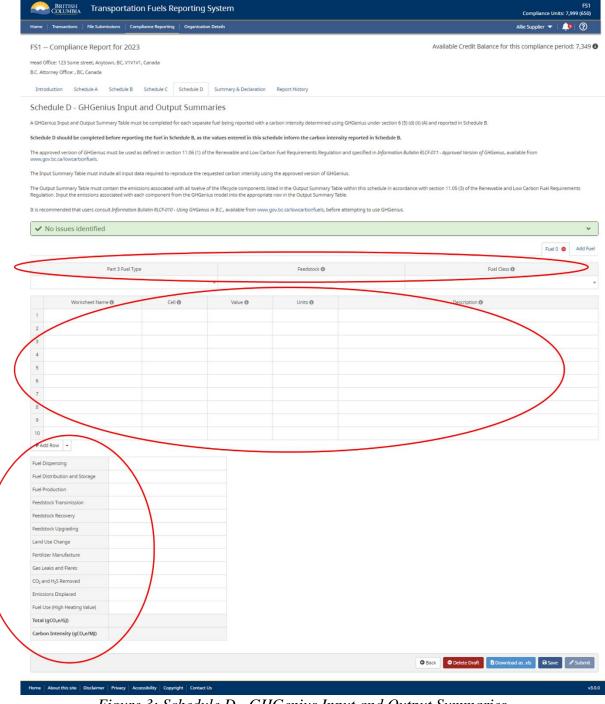


Figure 3: Schedule D - GHGenius Input and Output Summaries



f) Schedule D Tab

In order for the TFRS system to correctly calculate credits and debits, a value for the carbon intensity of the fuel must be in the system. If you are not relying on a default value or one that has been previously approved, you need to enter the GHGenius inputs and outputs in Schedule D before Schedule B can correctly perform its calculations.

Click on the tab for Schedule D, and you should see a screen like the one in *Figure 3: Schedule D - GHGenius Input and Output Summaries*.

Notice that the tab is effectively divided into three sections for input (marked on Figure 3):

- 1) A line near the top with three columns: "Part 3 Fuel Type", "Feedstock", and "Fuel Class".
- 2) A section with headings "Worksheet Name", "Cell", "Value", Units", and "Description".
- 3) A section listing the stages in a fuel lifecycle.

Depending on your source of propane, go to the relevant section immediately below and enter the provided information in the three sections of the Schedule D tab:

- If you are reporting propane **acquired from outside of BC**, you will need to use the default value, and should go to section g) "Schedule B Tab" to fill out Schedule B
- If you are reporting propane produced at a **fossil fuel refinery in BC** go to subsection i) "From a Fossil Fuel Refinery in BC".
- If you are reporting propane produced at a **natural gas plant in BC** go to subsection ii) "From a Natural Gas Plant in BC".
- If you are reporting propane acquired from a **propane distributor in BC**, and it is not known who produced it or how it was produced, go to subsection iii) "From a Propane Distributor in BC (BC average)".





i) From a Fossil Fuel Refinery in BC

For the top section on Schedule D, enter the following values:

Part 3 Fuel Type	Feedstock	Fuel Class	
Propane	Crude Oil	Gasoline	

For the middle section on Schedule D, enter the following values:

GHGenius Inputs Worksheet	Cell	Value	Units	Description
Input	~E2	BC	None	Region
Input	В3	2023	None	Year

For the bottom section on Schedule D, enter the following values:

	g CO2eq/GJ
Fuel dispensing	34
Fuel distribution and storage	524
Fuel production	2022
Feedstock transmission	85
Feedstock recovery	5457
Feedstock upgrading	5973
Land-use changes, cultivation	263
Fertilizer manufacture	0
Gas leaks and flares	2215
CO2, H2S removed from NG	0
Emissions displaced	-173
Fuel Combustion	57261

The summary information at the bottom of the table is calculated automatically, and should read as follows. Note that the Total is in units per Gigajoule, while the CI is in units per Megajoule, so they differ by a factor of 1,000.

Total, g CO2eq/GJ	72,661
CI, g CO2eq/MJ	72.66

Check that this is correct, then go to section g) "Schedule B Tab".



ii) From a Natural Gas Plant in BC

For the top section on Schedule D, enter the following values:

Part 3 Fuel Type	Feedstock	Fuel Class
Propane	Natural Gas	Gasoline

For the middle section on Schedule D, enter the following values:

GHGenius Inputs Worksheet	Cell	Value	Units	Description
Input	~E2	BC	None	Region
Input	В3	2023	None	Year

For the bottom section on Schedule D, enter the following values:

	g CO2eq/GJ
Fuel dispensing	34
Fuel distribution and storage	524
Fuel production	2412
Feedstock transmission	0
Feedstock recovery	2780
Feedstock upgrading	0
Land-use changes, cultivation	0
Fertilizer manufacture	0
Gas leaks and flares	625
CO2, H2S removed from NG	994
Emissions displaced	0
Fuel Combustion	57261

The summary information at the bottom of the table is calculated automatically, and should read as follows. Note that the Total is in units per Gigajoule, while the CI is in units per Megajoule, so they differ by a factor of 1,000.

Total, g CO2eq/GJ	64,629
CI, g CO2eq/MJ	64.63

Check that this is correct, then go to section g) "Schedule B Tab".



iii) From a Propane Distributor in BC (BC average)

For the top section on Schedule D, enter the following values:

Part 3 Fuel Type	Feedstock	Fuel Class
Propane	95% Natural Gas/5% Crude Oil	Gasoline

For the middle section on Schedule D, enter the following values:

GHGenius Inputs Worksheet	Cell	Value	Units	Description
Input	~E2	BC	None	Region
Input	В3	2023	None	Year
Fuel Char	E35	0.95	None	Fraction propane from gas plants
Fuel Char	E36	0.95	None	Fraction propane from gas plants

For the bottom section on Schedule D, enter the following values:

	g CO2eq/GJ
Fuel dispensing	34
Fuel distribution and storage	524
Fuel production	2390
Feedstock transmission	5
Feedstock recovery	2927
Feedstock upgrading	327
Land-use changes, cultivation	14
Fertilizer manufacture	0
Gas leaks and flares	712
CO2, H2S removed from NG	939
Emissions displaced	-9
Fuel Combustion	57261

The summary information at the bottom of the table is calculated automatically, and should read as follows. Note that the Total is in units per Gigajoule, while the CI is in units per Megajoule, so they differ by a factor of 1,000.

Total, g CO2eq/GJ	65,124
CI, g CO2eq/MJ	65.12

Check that this is correct, then go to section g) "Schedule B Tab".



g) Schedule B Tab

Schedule B is intended for suppliers of Part 3 Fuels, including propane, to report the quantities of Part 3 Fuel that have been supplied.



If you are using a carbon intensity that does not have a fuel code, and you do not want to use the default value, go to Schedule D and fill that information out first, then return here.

If you are using the default value of the carbon intensity, or the carbon intensity of your propane has been entered into Schedule D, you will now be able complete Schedule B.

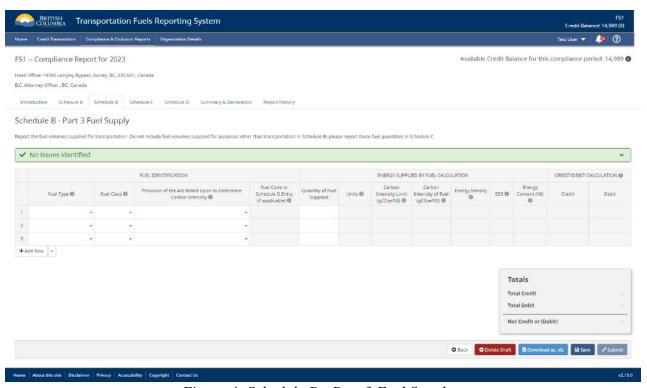


Figure 4: Schedule B - Part 3 Fuel Supply

Fill out Schedule B as follows:

i) Fuel Type

Select "Propane".

ii) Fuel Class

The GHG benefits of using propane differ depending on whether the fuel being displaced is gasoline or diesel fuel. If the end-use is not known, report the propane as being supplied in the "Gasoline" fuel class. If there is clear documentation that the propane is used in middle- or heavy-duty vehicles (such as school buses), then report the propane as being supplied in the "Diesel" fuel class.

If propane has been supplied under both fuel classes, report each quantity separately under the appropriate Fuel Class.



If the fuel was supplied to light-duty vehicles, or to an unknown vehicle type, select "Gasoline"



If the fuel was supplied to heavy-duty vehicles, select "Diesel"

iii) Provision of the Act and Fuel Code or Schedule D Entry (if applicable)

(1) From Outside of BC

If the propane was obtained from outside of BC, select "Section 6 (5) (d) (i) – Default Carbon Intensity Value". Check that the value shown under "Carbon Intensity of Fuel" is 75.35

(2) From a Fossil Fuel Refinery in BC

If the propane was obtained from a fossil fuel refinery in BC, select "Section 6 (5) (d) (ii) (A) – GHGenius modelled". In the "Fuel Code or Schedule D Entry (if applicable)", select "Propane 72.66", and check that the value shown under "Carbon Intensity of Fuel" is 72.66

(3) From a Natural Gas Plant in BC

If the propane was obtained directly from a Natural Gas Plant in BC, select "Section 6 (5) (d) (ii) (A) – GHGenius modelled". In the "Fuel Code or Schedule D Entry (if applicable)", select "Propane 64.63", and check that the value shown under "Carbon Intensity of Fuel" is 64.63

(4) From a Propane Distributor in BC (BC Average)

If the source of the propane is a propane distributor in BC or is unknown, select "Section 6 (5) (d) (ii) (A) – GHGenius modelled". In the "Fuel Code or Schedule D Entry (if applicable)", select "Propane 65.12", and check that the value shown under "Carbon Intensity of Fuel" is 65.12

iv) Quantity of Fuel Supplied

In the "Quantity of Fuel Supplied" enter the number of litres of propane supplied in the compliance period.

The remainder of the fields will be filled in automatically by TFRS.

h) Schedule C Tab

Schedule C is used for gasoline and diesel fuel suppliers to report gasoline or diesel fuel volumes that are not subject to the Act. There is no need to enter any information on this tab when reporting Propane.

i) Attach supporting GHGenius report

It is strongly recommended that the (S&T)² GHGenius report *Carbon Intensity of BC Propane Motor Fuel* be uploaded in support of the Schedule D information. To do so, follow the instruction in the TFRS Manual, beginning on Page 29. Use Attachment Type "Other" for this file.



j) Review and submit the compliance report

Once the above is complete, click on the "Summary and Declaration" tab to review your compliance report before submitting it. Complete instructions are in the TFRS Manual, beginning at the bottom of Page 22.

The BCeID that is used to submit the compliance report must have the "Signing Authority" privilege assigned to it by TFRS.

--End--