


CR 2023/32 - EROAD Australia Pty Ltd - Fuel Tax Credits Solution

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Status: **legally binding**

Class Ruling

EROAD Australia Pty Ltd – Fuel Tax Credits Solution

❗ Relying on this Ruling

This publication is a public ruling for the purposes of the *Taxation Administration Act 1953*.

If this Ruling applies to you, and you correctly rely on it, we will apply the law to you in the way set out in this Ruling. That is, you will not pay any more tax or penalties or interest in respect of the matters covered by this Ruling.

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What this Ruling is about

1. This Ruling sets out when the ‘FTC Report’ generated from EROAD Australia Pty Ltd’s (EROAD) Fuel Tax Credits Solution (FTC solution) can be used as a record (but not the only record) for fuel tax credit record-keeping purposes.
2. Details of this scheme are set out in paragraphs 15 to 86 of this Ruling. This Ruling does not:
 - rule on whether particular roads are public roads for the purposes of the *Fuel Tax Act 2006*
 - extend to determining entitlement to claim and calculation of fuel tax credit
 - extend to determining whether the road user charge is correctly applied in the apportionment methodology
 - rule on whether the methodology or processes used to determine location, the nature of the activity taking place at that location or other inputs (such as fuel consumption rates) are correct
 - address the assessability of fuel tax credit for income tax purposes.

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3. Although the FTC solution generates an estimate of the fuel tax credit calculations, clients need to check these calculations and assess whether they are entitled to claim based on all the information in the FTC solution. This Ruling does not extend to the calculation and the fuel tax credit amounts that are estimated for a fuel tax credit amount. Also, EROAD is not a tax adviser – entities to which this Ruling applies need to seek independent tax advice on any fuel tax credit taxation issue that may be relevant to the FTC solution, as per EROAD’s disclaimer on their website¹:

EROAD is not a tax adviser. Please seek independent tax advice to ensure that the figures you’re entering into EROAD’s FTC solution will be acceptable in the case of an audit.

In all circumstances, make sure you obtain your own legal advice.

Note: By issuing this Ruling, the ATO is not endorsing the FTC solution. Potential FTC solution clients (clients, purchasers, or users) must form their own view about the FTC solution.

4. All legislative references in this Ruling are to Schedule 1 of the *Tax Administration Act 1953*, unless otherwise indicated.

Who this Ruling applies to

5. This Ruling applies to you if you are a client of EROAD that:

- is registered for goods and services tax
- uses measurements from the FTC solution (including EROAD telematics system and associated reports), and
- generates and uses the FTC Report.

When this Ruling applies

6. This Ruling applies to taxable fuel acquired on or after 1 January 2023 to 30 June 2024.

Ruling

7. Subsection 382-5(1) provides that an entity must keep records that record and explain all transactions and other acts it engages in that are relevant to an entitlement to a fuel tax credit.

8. An entity must retain those records for at least 5 years after the completion of the transactions or acts to which they relate.

9. Subsection 382-5(8) provides that the records must be in English, or easily translated into English, and enable an entitlement under an indirect tax law (that is, fuel tax) to be ascertained.

10. The FTC solution is a telematics technology-based reporting tool which generates the FTC Report, which shows the following information for a selected period:

- vehicle
- vehicle type (heavy vehicle, light vehicle, auxiliary equipment)

¹ EROAD Help Australia [Fuel Tax Credits](#) [website], accessed 8 June 2023.

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- fuel type
- litres dispensed
- public road (on-road) apportionment of fuel (dollars and litres)
- off-road apportionment of fuel (dollars and litres)
- idle off-road (dollars and litres)
- type of auxiliary equipment
- auxiliary equipment fuel use (dollars and litres).

11. The FTC Report is produced in English and allows you to export information for a specific period into portable document format (PDF) and comma-separated values (CSV) (Excel file format).

12. Provided the FTC Report is retained for 5 years, or in accordance with the specific requirements under section 382-5, it can be used as a record (but not the only record) for record-keeping purposes in respect of fuel tax credit claims.

13. The FTC Report is a document that satisfies a record for the purposes of subsection 382-5(8).

14. However, the FTC Report will not be the only record required to be produced or retained for fuel tax credit purposes. Other evidence or reports could include:

- data input information reports and source data records
- reports showing the accuracy of fuel consumption rates used for vehicles and other inputs
- fuel acquisition records (such as tax invoices)
- confirmation of location and time (such as driver job sheet)
- documentation to verify that environmental criteria has been satisfied
- documentation on the use of fuel along with supporting evidence demonstrating the information from the FTC solution and calculations of credits and this can include
 - total litres after information from other source documentation has been incorporated
 - litres based on the categorisation of travel on public roads and off public roads
 - litres used in auxiliary equipment (where applicable)
 - litres used while the vehicle is idling off-road based on time and the categorisation of off-road use
- evidence of other assurance or process checks that have been undertaken to ensure that the amounts included in the reports are accurate.

Scheme

15. The following description of the scheme is based on information provided by the applicant. If the scheme is not carried out as described, this Ruling cannot be relied upon.

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Other information referenced is Class Ruling CR 2021/95 *EROAD Australia Pty Ltd – Fuel Tax Credits Solution*.

16. Certain information has been provided on a commercial-in-confidence basis and will not be disclosed or released under Freedom of Information legislation.

17. EROAD has developed the FTC solution, which has a means of electronically recording and reporting information relevant to fuel tax credits.

18. The telematics technology product consists of:

- a secure in-vehicle electronic device – (IVEDR) – EROAD ‘Ehubo2’ secure in-vehicle telematics device
- a unique serial number embedded on the enclosure and internally in the central processing unit
- a secure remote application server (Gateway)
- a secure central data repository
- cellular service connection from the IVEDR to the applications server
- a secure remote client self-service portal and web-based software application back office system (MyEROAD) allowing clients to view and monitor vehicles in real-time from any web-enabled device
- capability to record fuel transactions electronically
- the FTC solution application – IVEDR and Gateway
- internet service connection between MyEROAD and the client web-enabled devices.

19. There are micro-electrical mechanical systems included within the IVEDR that are designed to detect movement and used to validate Global Positioning System (GPS)-sensed movement.

20. The central piece of equipment is the IVEDR, which is a hard-wired installation that draws information on the vehicle system’s activities from the electrical system. The IVEDR records, stores and continuously transmits encrypted data via the cellular network. The IVEDR gathers a range of data relating to the location and operation of the vehicle it is installed in and captures distance, location, route and a variety of additional operational data from the vehicle.

21. At the start of a journey when the ignition is switched on, the IVEDR collects:

- Location – GPS satellite information (latitude and longitude) is captured and returned to the IVEDR when the ignition is turned on.
- Time and date – collected from the GPS satellite and returned to the IVEDR at the time the ignition is turned on
 - GPS tracking hardware device tracks all vehicle travel on public (on) road, private (off) road, and idle time. It automatically classifies into one of these activities referencing the underlying map data.
 - Where the map data is temporarily incorrect (for example, due to a road becoming a construction area) or a boundary is close to the geotunnel for the neighbouring road, customers can mark ‘off-road’ areas using a mapping data tool called geofences.

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- Auxiliary equipment usage – each GPS tracking hardware device can connect up to 3 digital inputs and outputs for monitoring the auxiliary equipment usage. It also collects the time the auxiliary equipment is in operation.
22. At the end of each vehicle journey, the following information is collected:
- Location – GPS satellite information is captured in the IVEDR when the ignition is turned off, including latitude and longitude.
 - Time and date – time and date are collected from the GPS satellite and captured by the IVEDR at the time the ignition is turned off.
23. An EROAD back-office system called 'MyEROAD' is used to create vehicle and auxiliary equipment master data. Vehicles are classified as heavy or light based on their gross vehicle mass (GVM) entered into MyEROAD. The following vehicle and auxiliary equipment data must be entered by the customers using MyEROAD:
- vehicle registration number
 - vehicle display name
 - vehicle make
 - vehicle model
 - vehicle year
 - vehicle fuel type
 - gross vehicle mass (GVM)
 - fuel consumption rate per hour when idling
 - auxiliary equipment name
 - auxiliary equipment fuel type
 - auxiliary equipment fuel consumption rate per hour
 - auxiliary equipment consumption calculation method.
24. Clients can enter idling fuel consumption and auxiliary equipment fuel consumption rates using the following methods:
- sampling (units per hour)
 - manufacturing (units per hour)
 - engine diagnostics (units per hour).
25. MyEROAD is used for entering fuel acquisitions data. There are 3 different ways to enter the data:
- manually using the vehicle on-board unit
 - manually in the MyEROAD Fuel Transaction Management section, or
 - via bulk import for multiple fuel acquisition events and multiple vehicles via the MyEROAD 'Upload Fuel Records' function (CSV upload). Note that extract from fuel card systems can be used for this bulk import into MyEROAD provided the input data follows the required data organisation.

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26. Fuel dispense data is sourced from the client's fuel purchase records. The fuel purchases must record, within MyEROAD, the following details:

- date of the dispense
- vehicle ID
- fuel type
- number of litres dispensed
- supplier
- location.

27. The vehicle travel-related information on each journey is sent as encrypted data (for secure transmission) via the mobile network from the IVEDR and is returned via Gateway.

28. The transmitted data is stored in a third-party central data store and application server where it is accessed via MyEROAD. All MyEROAD users are given an individual username and a password for access to the web portal.

29. If the mobile network is not available, all data is stored on the IVEDR until such time as the network becomes available again. Each IVEDR has an inbuilt battery unit that will continue to record and provide a signal in the event of vehicle battery failure.

30. MyEROAD is used to create vehicle and auxiliary equipment master data. Vehicles, when entered into MyEROAD, are classified as heavy (vehicle greater than 4.5 tonne GVM) or light (vehicle with GVM of 4.5 tonne or less).

31. The FTC solution provides summary and detailed fuel apportionment reports for clients to review and use that data to submit fuel tax credit claims for a selected period. Clients can view, manage and maintain a list of all their organisation's vehicles and assets, including registration number, vehicle model, IVEDR serial details, auxiliary inputs and status for the IVEDR of the vehicles. Clients can search for a particular vehicle activity or can filter by business department activity.

32. The summary report (organisation level data) shows the following information:

- selected period date range (as one or several months)
- group filter options
- total on-road travel kilometres
- percentage of on-road travel in comparison with total travel
- total off-road travel kilometres
- percentage of off-road travel in comparison with total travel
- total off-road idling time (hours)
- total auxiliary equipment use (hours)
- number of litres of fuel apportioned for each activity
- fuel type and unit.

33. The detailed report (vehicle level data) shows the following information for a selected period:

- vehicle ID

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- fuel type
- fuel dispensed units
- public road (on-road) fuel used and percentage
- off-road fuel used and percentage
- idle off-road fuel used and time (hours)
- auxiliary equipment name (if any)
- auxiliary equipment fuel used and time (hours).

34. EROAD's user guidance and marketing material specifically include a disclaimer that the FTC solution is a data calculation service only and not a tax advice service.

35. Auxiliary equipment fuel usage is calculated based on client's selection of the calculation method.

36. The IVEDR's digital input/output ports are used to establish dedicated connections with auxiliary equipment or power take off. The IVEDR can then detect the auxiliary equipment on/off via the digital input to determine if and when the auxiliary is activated and deactivated. This indicates the duration for which each auxiliary equipment is in operation. The number of auxiliary items that can be monitored can be increased through the use of an expander box (socket adapter).

37. The FTC solution reconciles the total fuel allocated to each activity with total fuel dispensed within the period to make sure it matches with on-road, off-road, idle off-road and auxiliary equipment usage (where entered) over the same period. The FTC solution does not record fuel (that is, electricity transferred in charging) use for electrical vehicles. Hybrid vehicles are supported within the existing framework, by virtue of the client providing the appropriate fuel consumption rate for the vehicle.

Locational information and geofences

38. HERE Technologies (HERE) is EROAD's third-party map provider.

39. EROAD conducts updates, including quarterly, where there are minor and major updates based on client feedback or notified by the relevant authority.

40. For HERE maps, 'non-public' and 'public' roads are initially derived from HERE maps general classifications where:

- 'private' relates to roads which reside on private land and are owned or maintained by private agents and treated as non-public, and
- 'open to the public' means access to the road is not limited and treated as public.

41. These are cross-referenced with a secondary data source for validation – for example, local or central government public road ownership data. The maps can be further adjusted as real-world information or changes are notified and validated.

42. EROAD uses both user-specified geofence polygons and road centreline data from HERE maps and government sources to determine if a position is off-road.

43. EROAD creates an area of public roads via geotunnel based on a specified distance from the road centreline.

44. Where the vehicle is definitely outside of the public road geotunnel or totally within a geofenced location, the vehicle location is classified as off-road.

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45. Geofences (map polygon) are either added as a global off-road geofence controlled by EROAD or created by a client when required (for example, construction site or client site) using the MyEROAD portal. Only authorised users and clients can create geofences. There are warnings in the system if a geofence is created over a public road and the client is required to provide a mandatory explanation to justify the classification.

46. The client can extract the off-road trip extract listing for all off-road trips per vehicle for a selected period. The client can review this report and if they find an invalid geofence or off-road journeys they can reapportion the distance travelled off-road to on-road and disregard idling duration in the invalid geofence.

47. Geofences currently do not have an end date; however, a review date is input for assurance purposes. Clients can set an optional time limit for each geofenced area they create. However this is not mandatory, and clients are ultimately responsible for using the digital geofence tool with integrity.

Methodology

48. The FTC solution apportions the fuel used by each vehicle by calculating fuel for use in off-road idling and (where applicable) auxiliary equipment by multiplying hours of operation by the hourly consumption rate.

49. It deducts this fuel from the total fuel dispensed for each vehicle. Fuel dispensed for a vehicle is first reduced by the fuel calculated for off-road idling and for auxiliary equipment (where applicable).

50. Remaining fuel dispensed for each vehicle is then apportioned using a percentage of the travel (public road or private off-road) against total travel undertaken by the vehicle.

51. That is:

Off-road idling fuel calculation = number of hours idling off-road × consumption rate entered by the client for vehicle idling per hour

On-road travel percentage = (on-road travel ÷ total travel) × 100

Off-road travel percentage = (off-road travel ÷ total travel) × 100

52. Auxiliary equipment fuel usage is calculated based on the client's selection of the calculation method. Clients can use a manual method (sample testing or manufacturer specifications). Clients are recommended to always use one method consistently for each piece of auxiliary equipment.

Idling

53. EROAD detects vehicle idling by interpreting a combination of telematics events transmitted via the IVEDR. The standard installation of the IVEDR uses a hardwired connection connecting the device to a continuous power source and to selected data source points, including the vehicle ignition. This enables it to determine when the ignition is on or off.

54. Idling time is based on a stationary heavy vehicle and engine turned on because the device connects to 'true ignition', which records the actual time the engine is operating. Only idle time used off public roads is apportioned within the system. For instance, ignition on and zero distance travelled between 2 event times is considered as an idling event.

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55. For heavy vehicles, a wire goes to the alternator and detects if the engine is on (True Idle). For light vehicles, that wire goes to the ignition. Combined with movement data, this then allows vehicle idling to be identified and timed.

56. To ensure there is no risk of double-counting fuel used idling and fuel used idling while operating auxiliary equipment, the auxiliary equipment is connected to the IVEDR via a separate direct cable from the equipment to a digital input port on the IVEDR. Auxiliary equipment is operated via a power take off; hence its usage is detected as on or off via digital input. This provides a separate signal indicating when the auxiliary equipment is turned on or off, allowing the run time to be measured.

57. The auxiliary equipment time multiplied by the equipment fuel use value gives the total fuel used by the auxiliary equipment. The separate data feeds allow idling and auxiliary equipment use to be separately identified and counted so that vehicle idling will not be confused with or counted towards the operation of the auxiliary equipment.

58. The fuel consumption rate for auxiliary equipment use is also provided by the client as a separate data point. As these are separate events, with separate fuel consumption rates for the vehicle idling and the auxiliary equipment running, there is no risk of double counting the fuel between the 2.

59. The idling time multiplied by the idling fuel consumption value provided by the client gives the fuel used during idling.

60. In heavy vehicles, the system can attach to True Idle and record when the engine is operating. This is not the case for all light vehicles, which fall into the following categories:

- older models that have an ignition key setting that would, if used to determine idling hours, generate inflated results in some cases, and
- new models with push-button ignition that generate a clear distinction between an engine operating or not operating.

61. Only push-button ignition light vehicles where these vehicles operate in on or off mode will have off-road idling time recorded for the purposes of fuel tax credit for this system.

Fuel apportionment – reconciliation

62. The FTC solution reconciles the total fuel allocated to each activity with total fuel dispensed within the period to make sure it matches the fuel usage with on-road, off-road, idle off-road and auxiliary equipment usage (where entered) over the same period.

63. If the vehicle idles while operating auxiliary equipment, it will be necessary to ensure that there is no double counting of fuel. For instance, the client cannot use an hourly consumption rate for idling as well as an hourly consumption rate for auxiliary equipment that includes fuel used when idling.

64. Should any record details be incomplete, the administrator will be alerted of these omissions through a scheduled exception report and will be able to take the appropriate action to correct.

65. The Fuel Exception Report for a period shows details of the:

- transaction date
- odometer reading
- distance (kilometres)

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- fuel quantity (litres)
- cost (dollars)
- site location
- exception details, and
- driver (where applicable).

66. The Fuel Usage Report combines transactional data with vehicle location and distance to provide consumption, cost, and emission information across client vehicles for the selected reporting period. Emission information is calculated using distance travelled and fuel consumed by the vehicle.

67. The Fuel Transaction Management Report displays all fuel transactions, including bulk fuel upload. This report lists one fuel transaction per row and displays the:

- vehicle name
- plate
- model
- transaction date and time
- receipt number
- fuel quantity
- fuel type, and
- address.

Controls and integrity

68. Various control and integrity measures have been included in the IVEDR to prevent tampering or interfering with the data held on or generated by the unit. There are also other tamper mechanisms in place to prevent damage or removing of the screen. Any attempt to move the device to another vehicle is strictly controlled by authorised roles only.

69. External access to MyEROAD is restricted to authorised users nominated by the client and provided with individual passwords.

70. Unit integrity and performance (when the device enters a Degraded Mode, the hatch is opened, wiring issues occur, system tampering is detected) is monitored via an audit report process.

Data integrity

71. All communications between the IVEDR and Gateway are encrypted to prevent unauthorised interference and authentication.

Accuracy

72. The IVEDR samples the GPS signal approximately every second and transmits data back through Gateway. The IVEDR verifies GPS time and date accuracy by ensuring all GPS system checks are valid and the unit has multiple accuracy checks to ensure time is accurate.

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Vehicle-specific accuracy

73. The vehicle's odometer reading is captured when the IVEDR is installed. A subsequent re-reading of the vehicle's odometer, to be undertaken by the client, then provides a comparison figure for the GPS-derived distance calculated by the IVEDR. The assurance process ensures consistent distance capture making anomalies easier to detect.

74. The IVEDR report faults when its distance measurement is impaired.

Governance and reviews

75. The FTC solution enables the records of fuel allocated to be put alongside the actual operation of that vehicle and any auxiliary equipment. It helps each client see and understand the normal working pattern for a vehicle or group of vehicles doing similar tasks, therefore making it easier for a client or auditor to notice and investigate irregularities. Clients can export the data and perform their own analysis to detect trends, anomalies, and other macro-insights, independent of FTC solution.

76. The vehicle's operational information is permanently retained and can then support historical analyses. In this way checks can be made for anomalies in fuel use (changes in consumption rates), in general and by vehicle.

77. The client will input true and complete information relating to matters beyond the ability of the FTC solution to directly observe, for example, fuel acquisitions and volumes; idling fuel consumption rates; auxiliary equipment fuel consumption rates. Monitoring for and responding to certain aspects are the responsibilities of the client, including fuel consumption rates (evidence, testing and ongoing validity), checking data against business records and identifying anomalies (for example, high idle time).

78. The IVEDR self-monitors for faults and issues. Once the IVEDR detects a fault or tamper and enters an unauthorised mode, an Audit Report will be created. This can be viewed by Client Administrators and Unit Managers. Clients must contact EROAD Support if the IVEDR enters into an unauthorised mode to resolve the fault or tamper via a formal resolution process.

79. EROAD has developed various change management controls.

EROAD Australia Pty Ltd's FTC Report

80. The FTC solution provides a summary and detailed fuel apportionment reports for clients to review and use that data to prepare and submit a fuel tax credit claim for a specified period. Clients can search for a particular vehicle activity or can filter by business department activity (organisation level data).

81. The FTC Report displays the company name and address, reporting period selected and date when the report was generated. The FTC Report shows the summary of each fuel type used in all vehicles for the reporting period. Clients can select either PDF or CSV format when exporting the FTC Report.

82. The auxiliary equipment consumption rate per hour is done per vehicle and per auxiliary equipment that is to be included in the FTC Report. If a client has not named the type of auxiliary equipment of a vehicle, it will not be included in the FTC Report. There is a prompt message that notifies the client if the calculation method was not set.

83. The FTC Report can only be processed once fuel acquisition data has been entered into the system. MyEROAD produces the FTC Report in English.

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84. The FTC solution uses the off-road travel percentage (distance), on-road travel percentage (distance), off-road idle hours (time) and auxiliary equipment hours (time) that has been calculated within the system.

85. The FTC Report provides the information listed in paragraph 10 of this Ruling.

86. The FTC solution generates an estimate of the fuel tax credit calculations. This is not covered in this Ruling. Clients need to check these calculations and assess that they are entitled to claim based on all the information in the FTC solution.

Commissioner of Taxation

14 June 2023

Status: **not legally binding**

References

Related Rulings/Determinations:

CR 2021/95

- TAA 1953 Sch 1 382-5
- TAA 1953 Sch 1 382-5(1)
- TAA 1953 Sch 1 382-5(8)

Legislative references:

- FTA 2006

ATO references

NO: 1-X4BZVHR
ISSN: 2205-5517
BSL: PW
ATOlaw topic: Excise ~~ Fuel tax credits

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