

NZETS Reporting requirements

Liquid Fossil Fuels (Transport) Sector

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Session One

- Prescribed documents
- Overview of Liquid Fossil Fuel Regulations
- Emissions return format
- Worked example



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Prescribed Documents

- Climate Change Response (Emissions Trading) Amendment Act 2008 – or Climate Change Response Act 2002
- Climate Change (Liquid Fossil Fuel) Regulations 2008
- Draft Climate Change (Unique Emission Factors) Regulations 2009
- Draft Climate Change (Liquid Fossil Fuel) Amendment Regulations 2009



Prescribed Documents

- Emission return forms
- Standards incorporated by reference – more details on these later in the session:
 - ISO/IEC 4259:2006
 - ISO/IEC 17025:2005
 - ASTM D5291-02
 - ASTM D1298 / ISO 3675:1998



Other Guidance Documents

- [Emissions Trading Bulletin 10: Draft climate change regulations for stationary energy, industrial processes and liquid fossil fuels](#)
- [Emissions Trading Bulletin 7: Dates of commencement for Emissions Trading Scheme participant obligations](#)
- [Emissions Trading Bulletin 9: Climate Change \(Liquid Fossil Fuels\) Regulations 2008](#)
- [Emissions Trading Bulletin 2: Climate change \(liquid fossil fuels\) regulations 2008 draft for consultation](#)



Other Guidance Documents

- Consultant reports by Hale and Twomey:
 - Emissions Trading Scheme Transport Fuels Technical Advisory Group Expert Advisory report, April 2008.
 - Establishing Unique Emissions Factors for the Emissions Trading Scheme, December 2008.
- TF TAG meeting minutes
- All available at: <http://www.climatechange.govt.nz>



Other Guidance Documents

- Sector specific guidance manuals (draft)
 - One stop shop
 - Does not replace prescribed documents
 - Link between prescribed documents, other guidance and your office
 - Feedback gratefully accepted
 - Will be made available online



External guidance material

- *Note ETS scope is different to corporate reporting and it has specific requirements, but:*
- General guidance on greenhouse gas emissions reporting and verification:
 - GHG Protocol <http://www.ghgprotocol.org/>
 - ISO 14064 parts 1 (organisational reporting), 2 (project reporting) and 3 (verification)
 - MfE Guidance for Voluntary, Corporate Greenhouse Gas Reporting: Data and methods for the 2006 calendar year



Guidance on accounting for emission units?

- Divergent views and treatment of emission units for accounting purposes
- IFRIC 3 released in 2004 did not reflect net treatment – *now withdrawn*:
 - Asset for allowances held
 - Government grant for allowances gifted on date gifted
 - Liability for emissions obligation
- Active project at IASB to develop a standard.



Climate Change (LFF) Regulations 2008

Definitions of interest (section 3)

- Biofuels as defined in Energy Fuels Levies and References Act 1989
- All calculations in kilo litres
- Obligation fuels, obligation fuel participant, obligation jet fuel participant
- Removed for home consumption as defined in s72 of Customs and Excise Act 1996
- Volume at refinery is at temp of 15 degrees, else ambient



Obligation fuels: section 4

Obligation fuels are defined by reference to excise and or tariff items and include:

- Regular petrol: motor spirit RON less than 95
- Premium petrol: motor spirit RON 95 or more
- Diesel: Automotive and Marine Diesel
- Aviation Spirit: Av gas
- Jet Fuel: kerosene type



Obligation fuels: section 4

Obligation fuels are defined by reference to excise and or tariff items and include:

- Light fuel oil: less than 85 centistokes at 50 degrees
- Heavy fuel oil: more than 85 centistokes at 50 degrees
- Any other liquid fossil fuel not listed that is directly combusted when used.



Collection of information: section 5

The following information must be collected in relation to each obligation fuel (less volume of biofuels):

- The volume of fuel removed for home consumption/from a refinery.
- Volume of fuel sold for use on international aviation or maritime trip where sale is zero-rated for GST purposes.
Note this excludes fuel sold to fishing vessels.
- Volume of jet fuel sold to jet fuel participants where sales is *not* zero-rated.
- Volume of fuel exported and the sale is zero-rated.



Calculating emissions: section 6

T (total emissions) = L (kilolitres of fuel) x E (emission factor)

$L = (A+B) - (C+D+E)$

- A and B = the volume of fuel removed for home consumption/from a refinery.
- C = Volume of fuel sold for use on international aviation or maritime trip where sale is zero-rated for GST purposes.
Note this excludes fuel sold to fishing vessels.
- D = Volume of jet fuel sold to jet fuel participants where sales is *not* zero-rated.
- E = Volume of fuel exported and the sale is zero-rated.



Calculating emissions: section 6

- Add together emissions for each obligation fuel
- If period is less than 1 year, this regulation still applies but 'with necessary modifications'
- Rounding



Jet: sections 7 and 8

- Must record volume of jet fuel purchased.
- T (total jet emissions) = L (kilolitres of jet fuel) x E (jet emission factor)
- If period is less than 1 year, this regulation still applies but 'with necessary modifications'
- Rounding



Emissions Return Format

Liquid fossil fuel participants

- Step 1: Estimate kilolitres of obligation fuel – process of excluding international fuel, exported fuel or fuel sold to jet fuel participants
- Step 2: Estimate emissions for each class of fuel – use of default or unique emission factors

Jet fuel only participants

- Step 1: Estimate emissions for each class of fuel

Form is fully referenced back to regulations.



Nikau Fuels Ltd

Facts – during the compliance period, Nikau Fuels:

- Purchased 300,000 litres of heavy fuel oil and 5,000,500 litres of diesel from a refinery
- Imported 900,000 litres of petrol blended with bioethanol 5%
- Sold 4,500,000 litres of diesel for use on international maritime trips
- Exported 300,000 litres of petrol-ethanol blend and
- No UEFs are relevant.



Session Two

- Overview of draft unique emissions factor regulations
- Sampling and testing standards
- Calculations
- Verification
- Next steps



Draft UEF regulations (i)

- Set out the activities for which applications for UEF may be made
- Provide the process by which a participant may apply for a UEF
- Prescribe the information that must be collected to support an application for a UEF
- Provide for certain persons to be recognised as verifiers
- BUT: Participants may only apply for approval to use a UEF if the UEF varies by more than **2%** from the EF that would otherwise apply

...scheduled to come into effect on 1 January 2010



Draft UEF regulations (ii)

- Minor consequential amendments to the Climate Change (Liquid Fossil Fuels) Regulations 2008
 - provide for the use of unique emission factors
 - require participants who wish to use UEF to keep certain data
 - adjust the formulas



Standards for sampling and testing

- **ISO/IEC 4259:2006** (covers the calculation of precision estimates and their application to specifications)
- **ISO/IEC 17025:2005** (general requirements for the competence of labs to carry out tests and/or calibrations)
- **ASTM D5291-02** (instrumental determination of carbon, hydrogen and nitrogen in petroleum products and lubricants)
- **ASTM D1298 / ISO 3675:1998** (determination of density (...) of crude petroleum and liquid petroleum products)

...copies of these standards are available for viewing today



Unique emission factor calculation method (i)

Formula for Carbon Dioxide Emission Factor of relevant fuel:

$$\text{EFC} = C \times D \times 36.7$$

EFC EF CO₂ of relevant class of obligation fuel (tCO₂/kl)

C mean carbon content of samples (%mass/100)

D mean density of samples (kg/l)



Unique emission factor calculation method (ii)

Formula for Unique Emission Factor of relevant fuel:

$$\text{UEF} = \text{EFC} \times 0.99 + X + Y$$

UEF Unique emission factor for CO₂ (tCO₂e/kl)

EFC EF CO₂ of relevant class of obligation fuel (tCO₂/kl)

X Emission Factor for CH₄ (Table 1, Schedule)

Y Emission Factor for N₂O (Table 1, Schedule)



Verification (i)

- **Provide the following material to recognised verifier**
 - *Record of sampling regime that complies with required standards*
 - *Confirmation that testing lab carries the required acc/certification*
 - *Test results*
 - *Calculations*
 - *Any other information required by the verifier*



Verification (ii)

- **Statement from an approved verifier that**
 - **Samples collected and tested meet standards**
 - **Prescribed calculations and tests have been followed**
- **Verifier must**
 - **Be either a chartered accountant or chartered engineer**
 - **Have at least five years post qualification experience**



Next steps

- **Submissions close 30 June 2009**
- **Further engagement is possible if required**
 - **E.g. TF TAG meeting this afternoon**
- **Questions?**

