

**FONTERRA SUBMISSION REGARDING THE CLIMATE CHANGE
REGULATIONS:**

- 1) STATIONARY ENERGY AND INDUSTRIAL PROCESSES**
- 2) UNIQUE EMISSIONS FACTORS**
- 3) OTHER REMOVALS ACTIVITIES**

Matters of Principle

- 1 Fonterra is disappointed at the extent of rewriting of the Stationary Energy and Industrial Processes regulations, which has discarded much of the work of the Methodologies Subgroup of the SEIP TAG, including that of the industry experts who gave of their time freely to the SEIP and its subgroups' deliberations. It appears to Fonterra that the advice of consultants engaged by Officials and the submissions of a few parties have been given a far greater weighting than the recommendations of the group of industry experts.
- 2 Fonterra reminds the Ministry for the Environment (MfE) of the guiding principles, as outlined in the final SEIP TAG report, that the regulations should be:
 - least cost to the participant and the economy
 - consistent with the New Zealand inventory
 - pragmatic
 - simple
 - transparent
 - verifiable

Plus they need to have scientific integrity, provide best emissions coverage and make use of existing processes, and measurement points for other responsibilities such as Crown Minerals Act and Resource Management Act requirements.

- 3 In particular Fonterra believes that the principles of pragmatism and simplicity have been lost in the effort to ensure that every last gram of emissions in the inventory is slated home to some party other than the Crown. The SEIP Subgroup anticipated this tension and expected pragmatic balancing of the need for simplicity and the need for some consistency with the national inventory methodology. Cost is also an important criteria and one must not lose sight of the fact that the overall global objective is to reduce global emissions at least cost.

Climate Change (Unique Emissions Factors) Regulations 2009

- 4 The SEIP TAG Methodologies subgroup expectation was that most participants would use standard emission factors and participants would only apply for a unique emission factor (UEF) if the actual emissions were significantly different to the standard factor. The reality from these redrafted regulations is that every gas participant and nearly every coal participant will finish up with a UEF with the associated cost and complexity. This is at odds with the intent to find a simple and pragmatic system.
- 5 **Revalidation of Coal UEFs – Clause 4(4)**
It is unclear as to how long a UEF stands before requiring revalidation. Fonterra does not want to see unnecessary cost in reapplying for UEFs but also recognises that coal properties change as a mine is worked, and perhaps therefore there should be a two yearly revalidation requirement.
- 6 **Thresholds for applying for a UEF – Clause 9, Table 2 of Schedule**
In these redrafted regulations the threshold for variance from the standard factor is very low – 0.4% for sub-bituminous coal through to 1.4% for bituminous coal. For gas it is assumed all participants will use unique emission factors.
- 7 Of most concern is that the application of a UEF is one-sided in that participants may apply for a UEF if the actual emission factor is below the standard factor by a small margin but there is no obligation on them nor any power for the Government to make them apply for a UEF if actual factors are more than a similar margin above the standard factor.
- 8 Because of this one-sidedness and the intent to make someone accountable for every last gram of emissions in the national inventory, the default factor is inflated by an arbitrary amount to compensate.
- 9 Anything other than a weighted average of the pool of remaining fuel supply after deduction of fuel for which a UEF is applied is inequitable. Even that taken to the extreme is problematic. As more parties apply for a UEF the default factor can be dominated by a few fuel sources having a high emission factor and for whom there is no requirement to have a UEF applied.
- 10 Fonterra submits that the threshold bands for applying for a coal UEF be widened and that there must be equal requirement to apply a UEF above and below the default value.

- 11 Oxidation factor for use in Coal UEFs – Clause 10
The actual oxidation factor varies by combustion conditions and IPCC (1996 Reference section pg1.29) records from UK data that travelling grate stoker and underfed stockers, as commonly used in New Zealand industry, have unburnt carbon of 2.7 to 6.6%. This is significantly higher than the 2% implied in the UEF calculation. Fonterra submits that coal opt-in participants should be able to apply for a UEF reflecting their actual oxidation factor.
- 12 Need for Verifiers – Clause 19
With analyses done by accredited laboratories with results then going into well defined calculations, Fonterra submits that independent verifiers are unnecessary and are in fact an unnecessary cost burden. The Regulator should retain the right to do random spot checks as the IRD does in similar circumstances.
- 13 Recognitions of Verifiers – Clause 21(2)
If the need for verification is retained, Fonterra does not believe it is necessary that verifiers must be either a Chartered Accountant or a Chartered Professional Engineer. Holding either recognition provides no guarantee of proficiency in this area, and there are other qualifications which are equally, if not more, relevant, for example quality standards auditing. At a minimum there should be a clause allowing the chief executive discretion to accept some “equivalent level of standing and competence relevant to the verifying activity”.
- 14 Definitions – Clause 3(1)
We believe it is confusing to link the definition of “obligation fuel” to the Liquid Fossil Fuels Regulation of 2008 which explicitly limits the term to liquid fossil fuels. An obligation fuel should be any fuel on which there is an emission obligation.

Climate Change (Stationary Energy and Industrial Processes) Regulations 2009

- 15 Fugitive Coal Seam Gas – Clause 10(2)
Fonterra believes in the principle that emissions should be included in the ETS only if they are measurable or can be accurately estimated. Advice is that this is far from the case for New Zealand mining operations and on that basis Fonterra submits that the factors should be set to zero or at least at the very lowest end of the likely range until actual emission factors can be determined.

- 16 Gas distribution losses – Clause 16(4)
A national loss factor is proposed to be applied across all gas mined. According to MED publication “Energy Greenhouse Emissions 1990-2007”, unaccounted for gas (= losses and metering errors) constituted 3.8 % of total gas emissions. It also stated that losses from the HP transmission system are negligible and the vast bulk of the losses were from the local retail distribution systems. It is inequitable to spread this loss over all users and the loss factor applied to the miner can only be that expected in the HP transmission system.
- 17 UEF for Opted-In Coal – Clause 46
The draft regulation requires a UEF to be used if one is “in force” for that class of coal. Miners may well have been granted a UEF and also sell some coal to an opt-in party. This regulation should require that the miner advise the Opt-in party the class of coal and any applicable UEF.
- 18 Coal Stockpile: Schedule 1, Clause 4(3)
This clause states that the closing stockpile must be determined as = opening stockpile + coal added – coal removed and the provision, which was in the first draft of the regulations, for physical estimation of the coal stockpile has disappeared. The accuracy of that estimation is subject to audit and any error is only a timing issue and Fonterra submits that this should be an option and be reinstated.
- 19 Participant purchasing natural Gas
Fonterra is submitting paragraphs 20, 21 & 22 in anticipation of a legislative change which would allow gas consumers who meet the 2 PJ threshold to opt-in even if not buying directly from a miner
- 20 Gas Quantities and Properties- Clauses 48 & 49
The gas purchaser will generally contract in and be invoiced for gas on a GJ basis, rather than in tonnes, and will not normally sight the gas chromatography results. Fonterra submits that the miner should be required to provide the Opt-in purchaser with a single emission factor in t CO_{2e}/GJ which includes the CH₄ and N₂O factors and the opt-in party shall then calculate the emission obligation as invoiced GJ x that emission factor.
- 21 It must be made clear that the emission factor referred to in the previous clause is that for the natural gas from the contracted field as injected into the HP gas pipeline. Upstream losses and flaring remain the responsibility of the miner. Fonterra request that this be explicitly stated.
- 22 Where the source gas field is not defined in existing contracts or obvious from mine ownership, the Opt-in party would use the default factor for

reticulated natural gas, which needs to be defined in the schedule of emission factors.

23 With respect to two drafting issues:

- a) Re Clause 3 Definitions of Energy Content: The Joule is an internationally recognised unit so does the regulation really need to remind all that it is the energy required to heat 1 cc of water by 0.239 °C or to lift a kilogram by 102 mm?
- b) Re Clause 7(2): A person importing coal does not “have emissions from the activity of importing coal” unless they import it for their own use. They may however have an emissions obligation.

Climate Change (Other Removal Activity) Regulations 2009

24 Fonterra believes that the threshold of 5000 tonnes emissions embedded may be good from an administrative perspective but it will act as an impediment to innovation of new technologies which may lock-up carbon in the future.