



## EFCTC position

Brussels, 19 September 2012

### EFCTC Comments to the Danish Draft Law amending the law on electricity tax and various other acts (“journalnummer 11-0296400”).

#### Executive Summary

The European Fluorocarbon Technical Committee (EFCTC), a sector group of the European Chemical Industry Council (CEFIC), wishes to express its views on § 7 of the proposal through which the Danish Act on the taxation of CFCs and certain other industrial greenhouse gases (“The Act”) is amended to include two species of very Low Global Warming fluorocarbons (1,3,3,3-Tetrafluoropropene and 2,3,3,3-Tetrafluoropropene).

In our view the proposed amendment, and some of the existing arrangements, are in conflict with the EU general principles of Proportionality and Non-Discrimination. We propose that the Act be amended to exclude any fluorocarbon compound that is not listed in the EU F-Gas Regulation and that has a scientifically demonstrated GWP<sup>100</sup> of 25 or less.

#### Background

In response to concerns over the potential rapid increase of emissions of hydrofluorocarbons with a high Global Warming Potential (“GWP”), the members of EFCTC are actively engaged in the development and commercialization of fluoro-olefins. These consist a new category of fluorocarbons that have a very low GWP, similar or lower to the GWP of hydrocarbons<sup>1</sup> and that have good intrinsic properties in terms of toxicity, flammability and physico-chemical characteristics, which enables their safe use in wide-spread critical applications. These new molecules can contribute to a dramatic reduction in potential Greenhouse Gas emissions by replacing existing high GWP fluids either as a substance or as a component in blends.

#### Proportionality

The current Act taxes unlisted hydrofluorocarbons at a default rate equal to the tax on R-134a (1,1,1,2-Tetrafluoroethane, GWP 1430). Consequently, many of the ultra-low GWP fluids currently in development will suffer from a punitive tax which will hinder their introduction. This default tax provision in the Act clearly infringes the general principle in Community law that no measure at national or EU level should be more intrusive than strictly necessary for the achievement of the legitimate policy aim. We therefore propose to include a clause in the Act under which the list of substances and their corresponding tax rates can be amended by a simple ministerial decree upon the submission of independent third party assessment of the GWP of the new substance.

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<sup>1</sup> See Table 2-1, 2010 TOC Refrigeration, A/C and Heat Pumps Assessment Report where most Hydrocarbons are reported to have a GWP<sup>100</sup> of “~ 20”

## CEFIC



Moreover, Denmark is bound by the provisions of the EU F-Gas Regulation (842/2006) “on certain fluorinated greenhouse gases”. Denmark has obtained an exemption pursuant to Art. 9.3 of the F-Gas Regulation, but this exemption only is valid for national measures which have been in force on December 31, 2005 and which fall within the scope of this Regulation, concerning the placing on the market of products and equipment containing, or whose functioning relies upon, fluorinated greenhouse gases.

The definition of fluorinated greenhouse gases is provided for in art 2.1 of the Regulation: “*Fluorinated greenhouse gases’ means hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>) as listed in Annex I and preparations containing those substances (...)*”.

The rationale for listing the species of the fluorinated greenhouse gases is provided for in pre-ambule 4 of the Regulation: “*Most fluorinated greenhouse gases controlled under the Kyoto Protocol and this Regulation have a high global warming potential.*” Clearly, fluorocarbons with a low or negligible GWP are excluded by intention. Consequently, we take the view that the Act should only include those substances that are listed in Annex I of the Regulation.

Finally, we believe that the cost of collection of the tax proposed for the HFOs listed exceeds the benefit of the tax income. The Act would place a disproportionate burden on the economic actors involved.

### **Non-discrimination**

The proposed tax rates for HFO-1234yf (GWP of 4) and HFO-1234ze (GWP of 6) are identical at DDK 1/kg vs. a tax on HFC-134a (GWP 1430) at DDK 130. The tax rate on HFC-134a suggest a tax rate of DDK 0.1 per unit of GWP/kg (or 1 kg CO<sub>2</sub>-equivalent), in which case the relative tax burden on HFO-1234yf is 2.5 times higher than on HFC-134a (and on HFO-1234ze a factor 1.3 higher). This clearly is discriminatory.

As noted in the Technical Options Committee report referred to in footnote 1, Hydrofluorocarbons and Hydrofluoro-olefins (“HFOs”) perform similar functions as Hydrocarbons such as Propane, (Iso)Butane, Pentanes, and DME. They all have a Global Warming Potential<sup>1</sup>, even if they are not identified as “industrial greenhouse gases”. By introducing a tax on fluorinated compounds with a GWP equal to or lower than these Hydrocarbons, the Act violates the principle of non-discrimination: it artificially raises the cost of acquisition of one category of substances versus that of a direct substitute. Since the GWP of most Hydrocarbons is not properly assessed, but in general referred to as “~20”, we propose to exclude from the scope of the Act any fluorocarbon, or preparation thereof, which has a demonstrated GWP of 25 or less.



Similarly, R-744 (or CO<sub>2</sub>) is used in several refrigeration applications and some insulation foam applications. To the extent that the use of CO<sub>2</sub> in these applications is exempt from the Danish tax regime, this again would violate the principle of non-discrimination.

### **TFA – Trifluoroacetic Acid**

The explanatory memorandum refers to the potential formation of TFA as a break-down product. We should like to refer to the 2010 Scientific Assessment Report of the UNEP Scientific Assessment Panel which concludes:

*“Preliminary analyses indicate that global replacement of HFC-134a with HFC-1234yf at today’s level of use is not expected to contribute significantly to tropospheric ozone formation or produce harmful levels of the degradation product TFA (trifluoroacetic acid). It is well established that TFA is a ubiquitous component of the environment, but uncertainties remain regarding its natural and anthropogenic sources, long-term fate, and abundances.”<sup>2</sup>*

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<sup>2</sup> EXECUTIVE SUMMARY WMO/UNEP “Scientific Assessment of Ozone Depletion: 2010” page 9 ;  
[http://ozone.unep.org/Assessment\\_Panels/SAP/ExecutiveSummary\\_SAP\\_2010.pdf](http://ozone.unep.org/Assessment_Panels/SAP/ExecutiveSummary_SAP_2010.pdf)