To: Commissioner Connie Hedegaard
CC: Director General Jos Delbeke, Head of Cabinet Peter Vis

Brussels, 2 July 2010

Implementation of the Article 7a of the Fuel Quality Directive

Dear Commissioner Hedegaard,

As environmental and civil society organisations committed to green technology development and halting dangerous climate change, we are concerned about the approach being taken by the European Commission in implementing Article 7a of the Fuel Quality Directive.

Our concerns have escalated after media reports that the latest draft implementing measures still do not include any specific default values for all unconventional feedstocks, most specifically tar sands and oil shale.

The recent dramatic oil spill in the Gulf of Mexico has demonstrated the risks associated with the extraction of oil. It has also shown the need for proper, fair and independent regulation from the side of public authorities. The EU's commitment to a clean and resource-efficient energy future is now being put to the test with the implementing measures for the Fuel Quality Directive.

We call on you to send a clear signal to the world that the EU is truly set on a clean and resource-efficient pathway by ensuring that the carbon footprint of oil extraction and production is properly taken into account in the implementing measures for the Fuel

Quality Directive. Both the urgency with which we need to reduce greenhouse gas emissions and the decline in easy-to-produce oil suggests that the world is at a critical juncture in which society's relationship with oil requires a new approach. The European Commission should immediately address unconventional oil sources/feedstocks that are characterised by much higher greenhouse gas emissions than conventional crude oil.

We hope that you can take into account in your considerations our views and the enclosed detailed policy recommendations. With the adoption of the Fuel Quality Directive the EU has sent a clear signal that transport fuels must be decarbonised. We urge you to adopt an effective implementation system that helps to achieve this objective.

We would welcome an opportunity to meet with you and discuss the approach to the decarbonisation of transport, including decarbonisation of transport fuels and efficiency standards for vehicles. We will contact your office shortly to arrange such a meeting.

Yours sincerely,

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Angelo Caserta
Director
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Annex 1: Policy recommendations Article 7a Fuel Quality Directive

The undersigned organisations recommend the following three measures in the implementation of Article 7a of the Fuel Quality Directive:

- Introduce specific values for all unconventional feedstocks, namely the reintroduction of 107 g CO_2/MJ for tar sands (as suggested in the Commission's consultation document in July 2009), and the addition of a specific value for oil shale of 152 g CO_2/MJ.
- Express clear commitment to develop a hybrid approach, which would set conservative default values for different fossil fuels and allow the option for suppliers to report actual values, if they can prove that these are better than the default. This would give real incentives for companies to improve greenhouse gas emissions of their fuels over time, something the Commission's favoured simple approach fails to achieve.
- Introduce accurate, robust and mandatory reporting systems for the carbon intensity of oil down to the project level. The reporting needs to start now in order to produce the necessary data for future reviews of the law.

The European Commission should immediately address unconventional feedstocks that are characterised by much higher greenhouse gas emissions than conventional crude oil. It is noteworthy that the exploitation of unconventional fossil fuels such as tar sands and oil shale is not compatible with the International Energy Agency's '450ppm stabilisation scenario'. Only under the IEA's business as usual 'reference scenario' could these fuels be used, which would lead to 1000ppm of atmospheric CO_2-e. The outcome of which, to quote the IEA, would "almost certainly lead to massive climatic change and irreparable damage to the planet".[1]

In the implementing measures the Commission rightly recognises that coal and natural gas are two unconventional feedstocks to produce oil that have higher GHG emissions and must be treated differently to conventional crude oil. However, tar sands (i.e. bitumen) and oil shale have not been taken into consideration. The production of synthetic crude oil from tar sands and oil shale emits 3 to 8 times more GHG emissions than conventional oil at the production level. By excluding a specific value for tar sands, the Commission is failing to recognise the 18% to 49% increased lifecycle GHG emissions[2] of the most commercially exploited unconventional fuel, with large scale developments in Canada and Venezuela and future plans for exploitation in Madagascar, the Republic of Congo and Russia.[3]

Furthermore, the Commission risks missing out on the opportunity to send a signal to the energy industry and to incentivise relatively cleaner and more resource-efficient production methods.

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[1] International Energy Agency, 'World Energy Outlook 2009'
[2] Natural Resources Defense Council, 'GHG emission factors for high carbon intensity crude oils,' June 2010: http://docs.nrdc.org/energy/files/ene_10070101a.pdf
[3] Friends of the Earth (2010) Tar sands: Fuelling the climate crisis, undermining EU energy security and damaging development objectives: http://www.foeeurope.org/corporates/pdf/Tar_Sand_Final_May10.pdf

Although the imports of tar sands based petroleum products to the EU is still small at the moment, import could increase significantly in the future.[4] Greenpeace research found that there are plans, described in detail, to expand the tar sands infrastructure in the United States. The construction of pipeline infrastructure could increase tar sands imports to the EU significantly. The proposed pipeline could deliver up to 500,000 barrels per day (b/d) of tar sands crude directly from Alberta to Texas by 2013. Currently only around 100,000 b/d enters the region. From the Gulf region even more tar sands could be exported to the EU. A specific EU default value can have a significant influence on future investment decisions in this field.

Estimates say that $379 billion will be invested in expanding tar sands operations in Alberta, Canada between now and 2025.[5] This massive investment will increase exploitation and distribution and inevitably lead to increase in EU imports. A large part of this investment is coming from European companies. In 2008, Shell stated that tar sands made up one third of its global resources – 20 billion barrels of dirty oil – and that it is investing $14bn into the expansion of the Athabasca Oil Sands Project (60% owned by Shell). At the same time, Shell's total investment in alternative energy in the five years to 2009 was just $1.7bn.

Annex II: Reported High GHG intensity life cycle values[6]

This Annex summarises a number of scientific studies that evaluated the GHG intensity of tar sands and oil shale production. It should be noted that not all studies are peer reviewed, but they all show that the GHG emission intensity of tar sands and oil shale are substantially higher than the European baseline of 86.6 g CO2/MJ.

Tar Sands		
Reference		**Total LCA GHG/MJ**
Government of Canada presentation: "*Oil sands: opportunities and challenges*"	*"Life cycle GHG fuel emissions of oil sands are 10-25% higher than from Canadian light crude"*	≈94-107g/MJ
ERA "*The impact of fossil fuels*" NOV 2009		113g/MJ
"*Canada's Oil Sands Shrinking window of Opportunity*" CERES	Average 19g/MJ extraction emissions in 2018 estimated from aggregate figures	≈104g/MJ (does not include all emissions related to upgrading)

[4] Greenpeace (2010) Tar Sands in Your Tank, Exposing Europe's role in Canda's dirty oil trade. http://www.greenpeace.org.uk/files/pdfs/tar-sands-in-your-tank.pdf

[5] WWF and The Co-Operative (2010) Opportunity cost of tar sands development. http://assets.wwf.org.uk/downloads/oppcoststarsandsdev.pdf

[6] It should be noted that where studies only gave values for upstream emissions, 85gCO2/MJ has been assumed for the refining and consumption part of the life cycle.

"Bitumen and Biocarbon: Land Use Conversions and Loss of Biological Carbon Due to Bitumen Operations in the Boreal Forests of Alberta, Canada" Reported results from NRCAN GHGenius	Mining 24g/MJ	≈110g/MJ
	In-situ 34g/MJ	≈120g/MJ
Jacob's consultancy *"Life cycle assessment comparison of North American and imported crudes"*	Mining with SCO	108g/MJ (to petrol)
	SAGD bitumen via Dilbit	113g/MJ (to petrol)
	SAGD bitumen via coking upgrader	116g/MJ (to petrol)
National Energy Board of Canada: "*Canada's Oil Sands, opportunities and challenges to 2015*"	2004 estimate of 2010 extraction emissions at 15g/MJ (excludes upgrading)	≈100g/MJ (plus emissions related to upgrading)
TRUCOST research note "*oil sands project exposure to carbon and energy costs*"	Mining without upgrade 2g/MJ	≈87g/MJ plus emissions related to upgrading
	Mining with upgrade 16g/MJ	≈101g/MJ
	In-situ with upgrade 25g/MJ	≈110g/MJ
"Understanding the Canadian Oil Sands Industry's Greenhouse Gas Emissions" Environmental Research Letters	Mining 9.2–26.5 gCO2/MJ	≈94-111g/MJ
	In-situ 16.2–28.7 gCO2/MJ	≈101-113g/MJ
McCann and Magee (1999)	17g/MJ	102g/MJ
Brandt and Farrell "*Scraping the bottom of the barrel: greenhouse gas emission consequences of a transition to low-quality and synthetic petroleum resources*"		≈108-132g/MJ
NRDC: " *GHG Emission Factors for High Carbon Intensity Crude Oils"* A review of results from other studies	Surface mining	Low 101g/MJ Average106g/MJ High 111g/MJ
	In-situ - SCO	Low 108g/MJ Average116g/MJ High 128g/MJ
	In-situ - Dilbit	Low 101g/MJ Average110g/MJ High 116g/MJ
	In-situ - Synbit	Low 105g/MJ Average108g/MJ High 112g/MJ
Oil Shale		

ERA "The impact of fossil fuels" NOV 2009	Estimated for production in 2020	144 g/MJ
Brandt and Farrell "*Scraping the bottom of the barrel: greenhouse gas emission consequences of a transition to low-quality and synthetic petroleum resources*"		≈121-256g/MJ