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Implementation of the Fuel Quality Directive

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Context – Decarbonizing transport fuels

In 2009, the EU revised the Fuel Quality Directive (FQD) and set out a new target in its Article 7a to reduce the carbon intensity of road transport fuels by 6% between 2010 and 2020. This target sent an important signal that EU fuels should become cleaner over time. However, in the absence of implementation provisions this target is still not in force – 4 years on. Implementation includes key elements like the reporting guidelines, the baseline carbon intensity value for 2010, and the methodology to establish the carbon intensity of fossil fuels and electricity.

The Commission's implementation proposal of October 2011 produced a stalemate vote in the Fuel Quality Committee in February 2012, being neither passed nor rejected. DG Clima has completed a year-long Impact Assessment and is now preparing a new proposal for consideration by the Member States.

We were part of the consultation process. We are concerned that Europe's oil supply is in fact "recarbonising" – despite the FQD target. Without further action, the EU will increase its use of fuels produced from tar sands and oil shale, according to the Commission's Impact Assessment study.¹

To prevent this from happening, we believe that the Commission should immediately submit a proposal which includes at least the following elements:

- Carbon intensity default values for all unconventional fuels (tar sands, oil shale, coal to liquid and gas to liquid);
- Reporting of the carbon intensity of each fuel supplier's individual fuel mix, based on these default values or actual carbon intensity values, as outlined in the legislative mandate;
- A review of the implementation measure to enable further differentiation, including of conventional crudes, at a later date, when more information becomes available.

In addition, the Commission should consider a further decarbonisation target for transport fuels as part of the EU's post-2020 climate and energy framework.

Correct carbon accounting of all fuels

The achievement of the FQD's carbon reduction target crucially depends on the correct carbon accounting of all fuels. To facilitate the suppliers' reporting, the Commission decided in 2011 to assign a specific "default" carbon intensity value to each transport fuel based on its feedstock of origin. This includes values for petrol and diesel produced from conventional crude oil as well as unconventional fossil fuel sources such as tar sands ('bitumen'), oil shale, coal and natural gas. A similar methodology already exists under the FQD to establish the carbon intensity of biofuels.

The 2011 proposal also allows fuel suppliers to report actual carbon intensities (instead of a default values) for fuels that have higher carbon intensity values than petrol and diesel produced from crude oil. Finally, it allows suppliers to report carbon savings achieved through the reduction of flaring and venting of natural gas.

¹ ICF presentation to Stakeholder Workshop on 15 April 2013.

A fair treatment of tar sands fuels

The 2011 proposal also includes default carbon intensity values for petrol and diesel produced from tar sands ('natural bitumen'). These values are based on a literature review by Prof. Adam Brandt for the European Commission. It concludes that the carbon intensity of petrol produced from tar sands ranges from 98 to 123g CO₂eq/MJ. The industry average is estimated at 107g CO₂eq/MJ, compared to 87.5g CO₂eq/MJ for petrol from conventional crude.² A recent study by Jacobs Consultancy for the Alberta government confirms that different tar sands production pathways result in a wide range of carbon intensities. It also confirms that the majority of tar sands pathways are more carbon intensive than fuels produced from conventional crude oil used in the EU.³

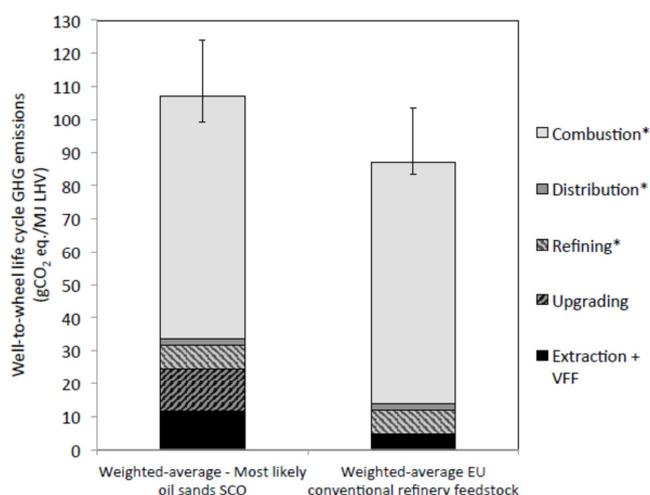


Fig. 1 Tar sands emissions compared to conventional EU refinery feedstock emissions. Most likely estimates are base values of bars, low and high ranges are represented by error bars (Brandt, 2011)

The best-available science therefore shows that the carbon intensity of tar sands fuels is significantly different from that of other fuels. In the context of the FQD, tar sands fuel is not a “like product”, which is why an independent legal analysis concludes that “(t)he Canadian government faces significant obstacles, if not insurmountable hurdles, in a WTO challenge against reporting measures setting out a default value for GHG emissions from tar sands. The European Union has a strong likelihood of success on the merits.”⁴

Global greenhouse gas reductions

The FQD aims to reduce the lifecycle emissions of road transport fuels used in the European Union. But recent analysis has shown that it will also reduce greenhouse gas emissions globally. A study by CE Delft and Carbon Matters for Transport & Environment concludes that a differentiation between fuels produced from tar sands and conventional crude oil, as proposed by the Commission, could save up to 19 million tonnes of CO₂ every year – equivalent to taking 7 million cars off the roads. These savings are the result of a shift of investments away from tar sands projects to lower-carbon alternatives. They are additional to the 50-60 million tonnes CO₂ saved annually by meeting the FQD target. The study does not explore the effect of separate default values for oil shale, gas-to-liquid or coal-to-liquid, which will result in even higher CO₂ savings.⁵

² Brandt, A. R., 2011, *Upstream greenhouse gas (GHG) emissions from Canadian oil Sands as feedstock for European refineries*. https://circabc.europa.eu/d/d/workspace/SpacesStore/db806977-6418-44db-a464-20267139b34d/Brandt_Oil_Sands_GHG_Final.pdf

³ Jacobs Consultancy, 2012, *EU Pathway Study: Life Cycle Assessment of Crude Oils in a European Context*, <http://www.energy.alberta.ca/Initiatives/1439.asp>

⁴ Défence Terre, 2011, *WTO implications of reporting measures for tar sands under the Fuel Quality Directive*, <http://www.transportenvironment.org/publications/wto-implications-reporting-measures-tar-sands-under-fuel-quality-directive>

⁵ Kampman, B. (CE Delft); Van den Berg, J.; Otten, G. (Carbon Matters); Kroon, P. (ECN); Van Grinsven, A.; De Buck, A. (CE Delft), 2012, *Oil reporting for the FQD. An assessment of effort needed and cost to oil companies*.

<http://www.transportenvironment.org/publications/report-administrative-burden-fuel-quality-directive>