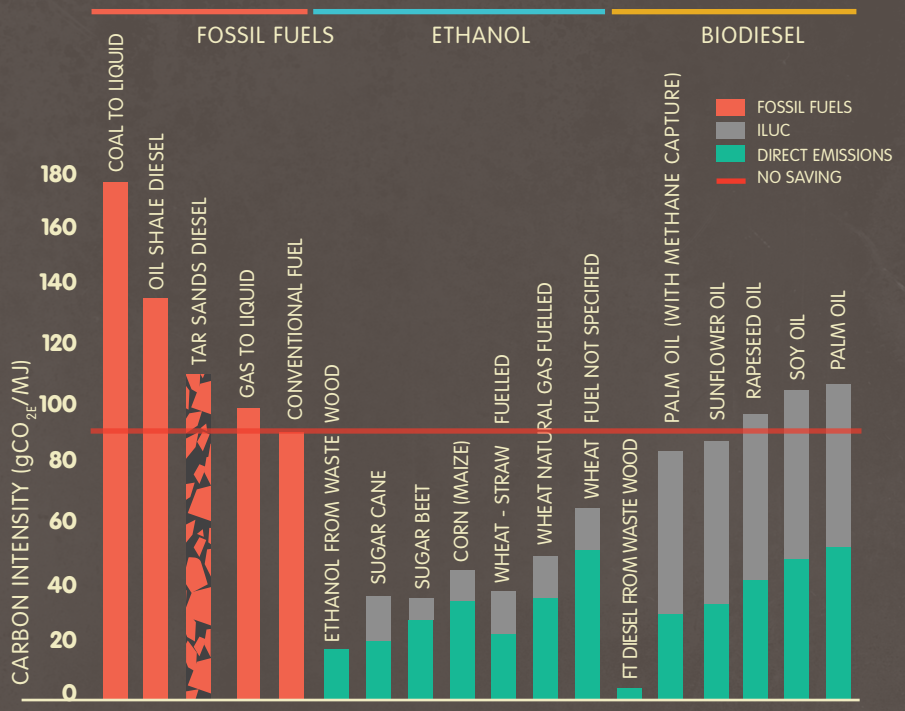
TAR SANDS AND THE FUEL QUALITY DIRECTIVE

WHAT IS IT ALL ABOUT

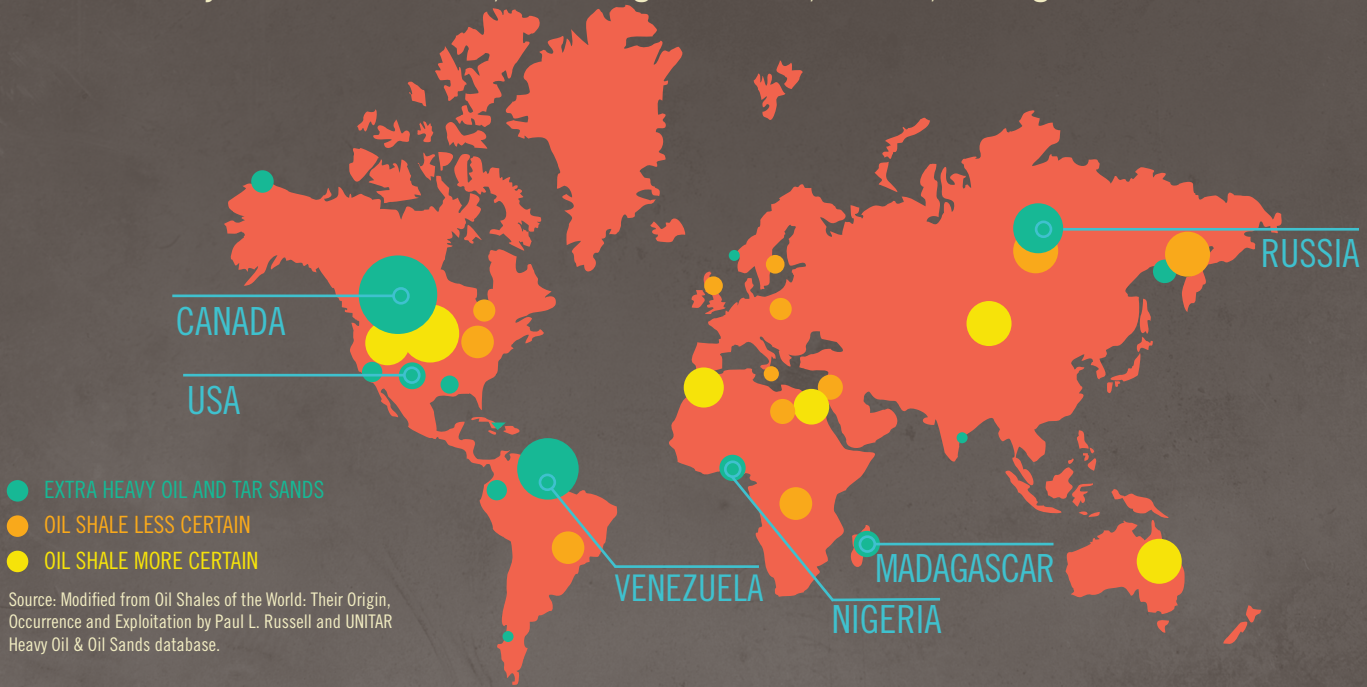
WHAT IT IS ABOUT

The Fuel Quality Directive (FQD) sets a 6% reduction target in the carbon intensity from transport fuels to be met by 2020. This is a technology-neutral target that leaves to the industry a range of options to meet it in the most cost-effective way. One such way is by providing alternative low carbon fuels such as sustainable biofuels or clean electricity.



WHAT IT'S NOT ABOUT

The Commission proposal to implement the FQD assigns carbon intensity to all fossil fuel feedstocks, namely: tar sands, coal-to-liquid, oil shale, gas-to-liquid and conventional oil. It does **NOT** discriminate between sources on the basis of geographical locations; it's all about the carbon intensity of each fuel source. Oil shale gets a higher carbon intensity value than tar sands under this proposal. The specific 'default value' for tar sands is **NOT** just in place for Canadian oil, but for all fuels that are produced from tar sands anywhere in the world, including Venezuela, Russia, Madagascar and the US.

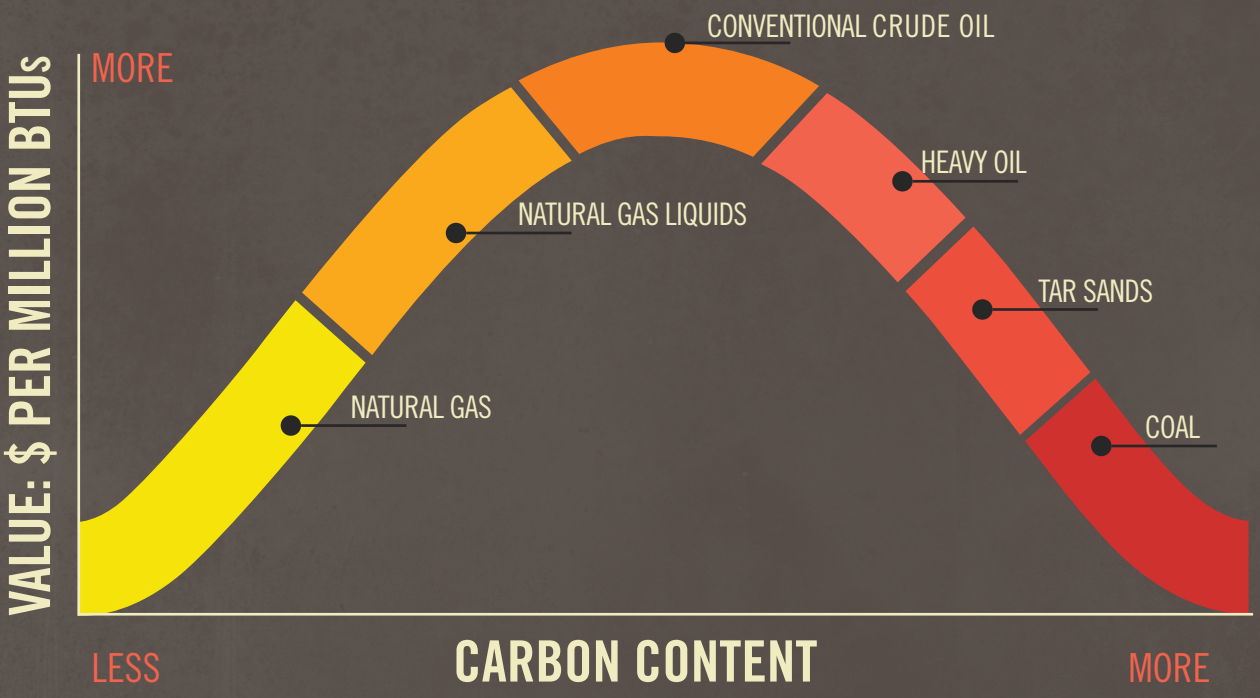


Source: Modified from Oil Shales of the World: Their Origin, Occurrence and Exploitation by Paul L. Russell and UNITAR Heavy Oil & Oil Sands database.

TAR SANDS – WHAT´S ALL THE FUSS ABOUT

Depending on the density of the crudes, we can differentiate between light crude oil, heavy crude oil and extra heavy crude oil (e.g. tar sands). The heavier the crude is, the more energy is required to extract, transport and refine it, ultimately increasing the emissions released during the entire fuel lifecycle. Tar sands oil is produced from a different feedstock than conventional crude, which requires much more energy during the extraction and processing phases than conventional crude oil, increasing greenhouse gas (GHG) emissions.

THE SPECTRUM OF FOSSIL FUELS, THEIR CARBON CONTENT AND VALUE



A RECENT REVIEW OF 13 SCIENTIFIC STUDIES HAS SHOWN THAT

Tar sands fuels have GHG emissions of up to 49% higher than other conventional crudes.

The official Commission study assumes that on average tar sands are 23% worse than conventional crude oil.

THE FQD AND GLOBAL GHG REDUCTIONS

The latest study on the subject has shown that differentiated values for different unconventional feedstocks for petrol and diesel can save up to 19 Megatonnes of GHG emissions per year by shifting investment in tar sands projects to lower-carbon oil sources.

DEFAULT VALUES WILL SAVE UP TO **19 MILLION TONNES** OF GHG EMISSIONS = EQUIVALENT TO REMOVING **7 MILLION CARS** FROM EUROPE'S ROADS EVERY YEAR

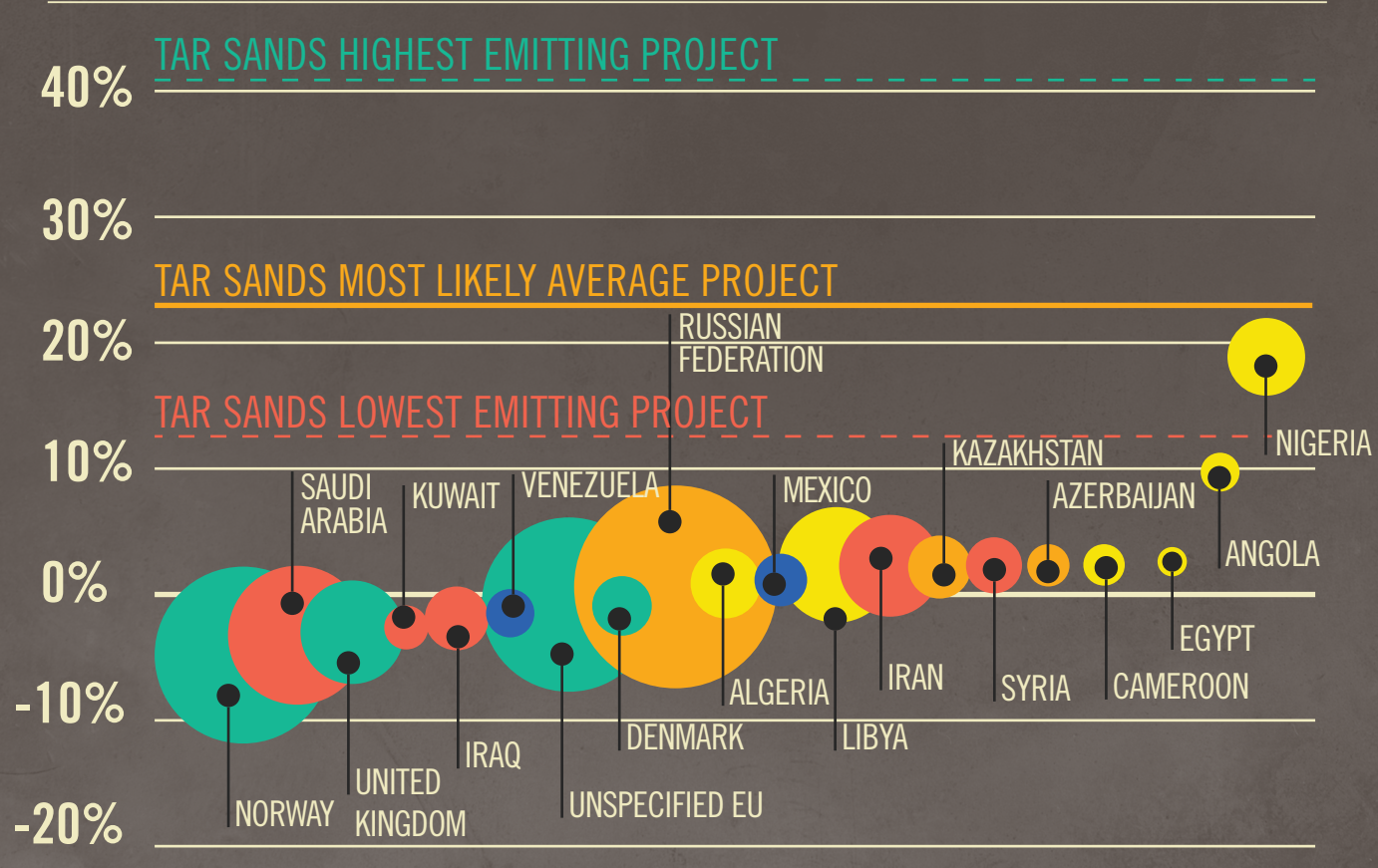
THESE SAVINGS ARE ADDITIONAL TO THE 50-60MT CO2 ANNUAL SAVINGS TO BE ACHIEVED BY FQD´S 6% CARBON REDUCTION TARGET.

Canada is arguing that other types of oil imported to Europe from countries like Venezuela, Nigeria or Russia have the same or an even worst carbon footprint than tar sands oil, because they have a high level of flaring.

BUT STUDIES SHOW THAT

Average emissions from tar sands projects are higher than the average emissions from projects that flare.

Even countries with high levels of flaring, especially Nigeria, on average still have less GHG emissions than the average of tar sands.



HOW THE INDUSTRY WILL BE AFFECTED

The administrative cost of implementing the Commission's FQD proposal would be minimal. It would add less than half a eurocent for a 50-litre fill-up or a maximum of 1.6 eurocents per barrel of oil, but it would make the overall compliance with the target cheaper. The industry has claimed a figure of $1 a barrel, but has not published any research to back it up.

ADMINISTRATIVE COST – MAX. 1.6 EUROCENTS X OIL BARREL

The 'default values' will not have an impact on European refineries simply because EU refineries are not equipped to process unconventional crudes, such as the ones from tar sands. Only Spain has recently upgraded refineries to be able to accept some Venezuelan tar sands crudes. Most refineries will not have to make additional investments and they will continue relying on conventional crudes that they can process.

WHAT NEEDS TO HAPPEN

According to the usually conservative International Energy Agency (IEA), two-thirds of all proven fossil fuel reserves will have to stay in the ground if the world is to achieve the goal of limiting global warming to two degrees Celsius.

CANADIAN TAR SANDS PROJECTS COMPARED TO IEA CLIMATE SCENARIOS

THIS LEAVES US WITH ONLY ONE CONCLUSION:

We just can´t afford to let tar sands (and other unconventional fuels) grow exponentially.

FOR THIS REASON T&E RECOMMENDS THAT THE EU

- Leaves carbon intensity values for all fossil fuel feedstocks in the implementing rules for the FQD.
- Ensures that fuel suppliers are obliged to report these carbon intensity values.

TRANSPORT & ENVIRONMENT

For references and more information please visit: http://transenv.eu/FQDtarsands

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