## New gas-to-methanol technology 0xE could end oil well "flaring"



Oil wells also release natural gas. But it's burnt off on site whenever the economics of collecting and piping it don't add up (gas can't use the existing petroleum infrastructure). What if it could be converted into methanol, says Nichole Liebov at the University of Virginia. She describes a new process called oxyesterification (OxE) that converts methane (the main constituent of natural gas) into methanol cost effectively at low temperatures and pressures. More work is being done to optimise the process and make it scalable. But without such a solution we will continue to "flare" the gas, adding 300m tons of CO2 to the world's atmosphere annually.

Natural gas, which consists primarily of methane, accounts for nearly one quarter of global energy production. Although the shale gas boom significantly increased the supply of natural gas, natural gas cannot be transported to processing plants using existing infrastructure for petroleum.

Consequently, remote sources of natural gas are in effect "stranded." Methods to use this "stranded" natural gas productively would be highly beneficial and would reduce unproductive flaring.