ChemE

Oil & Natural Gas Special Interest Group

Prof. Jonathan Stern, Oxford Institute of Energy Studies – Presents "Challenges to the Future of Gas: unburnable or unaffordable?" Tuesday 12th March 2019 at 18:30 NOTE CHANGE IN VENUE: One Birdcage Walk

The advocacy narrative of the European Union (EU) gas community which focused on coal to gas switching and backing up renewables, while logical, has failed to convince governments, NGOs and media commentators that it can help achieve post-2030 decarbonisation targets. The gas community therefore needs to develop decarbonisation narratives, the components of which are the size and timing of developing commercial scale projects for biogas, biomethane, and hydrogen from power to gas (electrolysis) and reformed methane.



The choices which national governments, and regional and municipal authorities and companies will make – and the criteria which they will employ to make them – will differ within, as well as between, countries. The current model of gas markets transporting a homogenous product through a unified network will change significantly post-2030, which means there will not be a single European narrative but a range of narratives. But the key issue in the major gas markets of Europe is whether a transition to decarbonised gas can be made by the end of the next decade when methane will become progressively `unburnable' without CCS.

Outside the major European gas markets, and some other OECD countries and regions of countries, the main challenge is that there are limited numbers of countries outside the OECD which can be expected to afford to pay wholesale (or import) prices of \$6-8/MMbtu and above, which are needed to remunerate 2019 delivery costs of large volumes of gas from new pipeline gas or LNG projects. Prices towards the top of (and certainly above) this range are likely to make gas increasingly uncompetitive leading to progressive demand destruction even in OECD countries. The current assumption is that around the early/mid 2020s – international gas prices will rise to \$10-15/MMbtu, allowing a return to profitability for projects which came on stream since the mid-2010s and allowing new projects to move forward. Should this assumption prove be correct, it will create major problems for the future of gas. The key to gas fulfilling its potential role as a transition fuel up to and beyond 2030, is that it must be delivered to high income markets below \$8/MMbtu, and to low income markets below \$6/MMbtu (and ideally closer to \$5/MMbtu).

Venue: IMechE, One Birdcage Walk. Map attached. For more information contact: song@ichememember.org

Refreshments and networking from 6.00pm, the presentation will start at 6.30pm. There will be an opportunity for more networking after the presentation.

Members not able to attend can join the live presentation over the web. Register to attend online: <u>https://attendee.gotowebinar.com/register/7802538427617575949</u> Register to attend in person: <u>http://ievents.icheme.org/booking/Default.aspx?evnt=1227</u> Join us on LinkedIn: <u>https://www.linkedin.com/groups/IChemE-Oil-Natural-Gas-Special-7421236/about</u>



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The IMechE: One Birdcage Walk

LOCATION

1 Birdcage Walk, Westminster, London SW1H 9JJ Nearest tubes are St. James Park and Westminster Station

MAP

