Future of North American Gas in a Carbon Constrained World
Global Gas Centre- EPRINC Joint Seminar
Virtual Event, Washington DC

03rd June 2021

Following from the theme in the Berlin meeting on the role of natural gas in the context of net zero by 2050, this event, jointly hosted by the Washington DC based Energy Policy Research Foundation Inc (EPRINC) and the GGC focused on the role of North American gas in the global gas industry development context. The US emerged as a "net exporter" of gas under the Trump Administration and given that the first announcement by the new Biden Administration as that "America is Back in the Paris Agreement" – a detailed understanding of not just the US gas market but the "North American Gas Platform" and its role in the future carbon constrained world was considered essential.

The Berlin meeting captured a growing perception within the gas community that there is a serious misunderstanding within the international policy community about the future role of gas; against the backdrop of a new US administration, re-entry back into Paris Accord and the growing investment requirements in the decarbonised gas (e.g., Hydrogen) and CCUS ecosystem this exchange of views was particularly insightful.

It was still a short 3-hour virtual session for the broad sweep of subjects discussed and the sheer volume of information that was shared. The one advantage that the new virtual event model offers is the possibility to revisit the recording and hence this report will only attempt to capture the high-level issues that can be the basis for future discussions. For Individual presentations and detailed information, the recording and slides are available from both the GGC and EPRINC websites.

Following the individual welcomes by Mr Rene Bautz, Chairman GGC and Mr Lucian Pugliaresi, President EPRINC, the proceedings were kicked off by Mr Pugliaresi.

The seminar was structured with a principal speaker from the US Administration, Dr Shuchi Talati, Chief of Staff for The Office of Fossil Energy and Carbon Management, DOE, followed by three separate and related thematic discussions on:

1. An overview of North American Gas
2. The tension between the requirement for careful carbon management vis-à-vis the pivotal role of gas in a carbon constrained world; and
3. The tension between the gas industry aspirations vis-à-vis the realities of securing the investments in a changing infrastructure finance world driven by ESG considerations.

Dr Talati's speech is summarised below and the reminder that this document is a high-level synopsis of the issues raised in the three discussions.

Dr Shuchi Talati confirmed the US Administration commitment to achieve “net zero carbon emissions” by 2050 and concurred with the recently released IEA scenario report that acknowledges that the “path to net zero by 2050 is a narrow yet achievable one” and highlighted the future focus areas for the department being to ensure a “leak tight” emission management system, delivering the research programs in methane control, CCUS and new technologies in fossil energy and international engagement to assure the continued development of the North American Gas Platform- whose international role can no longer be reversed.

OVERVIEW OF THE NORTH AMERICAN GAS PLATFORM:

Contributors: Max Pyziur, EPRINC; Emily Medina, EPRINC

US, Canada and Mexico have now emerged as a single North American Gas platform with growing trade interdependencies. The key feature of this platform is the high market responsivity and the growing export volumes have established the US as a credible long-term supplier. The US gas industry has already achieved pre-COVID volumes and future growth requires a further development of inter-state long distance pipelines- this can be a tricky regulatory and permitting issue, especially in establishing adequate evacuation routes for the large and low-cost gas resources of the Appalachian Gas Basin. Severe constraints remain in moving Appalachian gas to the Northeast United States.

Mexico remains 95% dependent on US imports and as it develops further connectivity with Canada and US markets its significance for balancing Atlantic and Pacific LNG markets will grow.

CARBON MANAGEMENT AND PIVOTAL ROLE OF GAS

Contributors: Jim Slutz- National Petroleum Council (NPC); Trisha Curtis-EPRINC; Alex Gilden-American Petroleum Institute (API); Fred Hutchison-US LNG Association (US-LNGA); Mike Train-Emerson and Dan Simmons-DoE; Moderator: Glenn Sweetnam, EPRINC.

Jim presented the findings of the latest NPC report on achieving scale in CCUS in the US and the cost model that can be applied in any developed market context. US CCUS at scale means achieving 500 MTPA of CO_2 from current base of 25MTPA by 2050, which can be achieved in three stages provided the regulatory and permitting process can be streamlined- importantly, technology is not considered to be a major risk anymore.

Trisha provided the deeper granularity of current and future production of gas from the US producing regions and concurred with the view that gas in US is back to pre-COVID levels but also brought into sharp focus the requirement for continued development of gas pipeline capacities especially in the Northeast- in the absence of which large scale renewable energy investments in the region would carry even greater levels of performance risk.

Alex provided greater insight on the issue of pipeline investments in the US and why this was a concern; Q1 2021 showed a drop of $38Billion in pipeline investments and the investment backlog in the US for pipelines had grown to $174 billion; he substantiated this requirement with two case studies for gas and NGLs which showed a clear corelation between these investments and lower delivered costs of gas to consumers, especially the residential and commercial segments.

Fred Hutchison provided a detailed update on the status of the various LNG export projects and also highlighted the role of FERC and the DOE in the licensing and approval processes. His presentation showed how the LNG industry was working in the US to lower the emission footprint and was prepared to do more, provided the technologies to do so were available.

Mike Train with the help of the US Sankey Diagram demonstrated how 4 key strategies: Energy Efficiency and Optimisation; Emission Management; Energy Source Decarbonisation and Electrification and System Integration were critical in delivering the solutions that the industry could deploy not just in a carbon constrained US but also the top 20 of the world economies.

In their response comments, Daniel Simmons, Tarek Souki (Tellurian) and Ashutosh Shastri (EPRINC and GGC) highlighted the risks relating to the timeline for the transition to low carbon as well as the need for simpler business models that would deliver these solutions.

GAS INDUSTRY ASPIRATIONS AND ESG INVESTMENTS

This session, moderated by Andrew Walker (Cheniere) included interventions by Ivan Sandrea, Trustee EPRINC and Prof Paul Tice of NYU-Stern.

Ivan Sandrea highlighted the role that ESG was designed to play vis-à-vis the current state of play which is narrowly applied to essentially only two sectors, Oil & Gas and Automotive whereas it could play a much more meaningful role in helping create the much desired "circular economy" model focusing on the more wholistic addressal of investment issues around the water-food-energy nexus. He cited examples of mining and fishing industries which the ESG investing community was not nearly enough focused on as compared to Oil and Gas and Automotive.

Paul Tice provided a detailed evaluation of the ESG processes, its origins and its essentially "bolt on" role to fundamentals driven analysis and how a lack of standardisation within the ESG metrics could lead to more confusion than clarity. He also highlighted the fiduciary risks inherent in ESG metrics being applied to existing funds and with compelling long-term bond spread data comprehensively punctured the often heard/read argument about stranded fossil fuel assets.

This was followed by a detailed Q&A session that would not be fair to even attempt to summarise. The meeting ended with a vote of thanks from Mr Pugliaresi of EPRINC and Mr Rene Bautz, Chairman of GGC.

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Ashutosh Shastri

Senior Advisor, Global Gas Centre & Distinguished Fellow, EPRINC