11th November, Innovation Zone, Cessnock Quay, COP26

#### Session 1 – Hydrogen production and industrial applications

Countries across the world are looking to hydrogen to help decarbonise energy systems. There's broad agreement that hydrogen has a key role to play – but it's a complicated transition with governments, the gas industry, policy makers, business leaders all trying to navigate the challenges and opportunities it brings.

What are the benefits and compromises that need to be made?

Is there an opportunity for emerging nations – or will this widen the gap?

## 11 Nov | 09:00 - 10:55 GMT 09:00 Chairperson's Opening Remarks Big picture – are we any closer to meeting the 2050 net zero goals or further away? How can we make sure we're not having the same conversation about hydrogen in five years' time? Maithreyi Seetharaman, Forum Chair 09:05 Opening Address Seifi Ghasemi, Chairman, President and CEO, Air Products 09:15 Climate Leaders Live / Fireside Chat What are the steps needed to build a hydrogen economy? How quickly can a hydrogen economy be established? Ivo Bols, President Europe and Africa, Air Products 09:35 **Hybrid Panel** How do we unlock carbon capture technology and hydrogen infrastructure to decarbonise industry? It's not technology / engineering limiting industrial applications it's the cost of conversion and a lack of hydrogen at scale. Many industry sectors are in a globally competitive market – and unable to bear additional decarbonisation costs while maintaining competitive production costs with less regulated plants internationally. Speakers: Rod Christie, Executive Vice President, Baker Hughes Paul Browning, CEO Mitsubishi Power Americas and Chief Regional Officer EMEA, Mitsubishi Power Stephen Matthews, EMEA Regional Hydrogen Lead, ERM Dr Fiona Simon, CEO, Australia Hydrogen Council Senior Representative, IEA Chair: Maithreyi Seetharaman, Forum Chair 10:25 Climate Leaders Live The Big Picture; Hydrogen Opportunity Senior Representative, S&P Global Platts 10:45 Climate Leaders Spotlight Energy plays a central role in UNIDO's overarching mandate – as green hydrogen can provide developing and transition economies with a zero-carbon energy carrier to support sustainable local industrial development Stephan Sicars, Managing Director, Directorate of Environment and Energy UNIDO 10:55 Chair Closing Remarks Maithreyi Seetharaman, Forum Chair AM Break until 11:30

#### Session 2 - Financial models and policy: constraints and levers

The next few decades are expected to be among the most transformative the energy sector has ever seen – with billions required to be invested to ensure the system is fit for the future, at a time when the world is recovering from a pandemic. Critical to supporting this

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change will be the financial and policy decisions made now – that will shape the market in the future. New models are needed to replace existing corporate / national utility models. Politicians are cautious about big decisions with long term ramifications – but they are needed.

11 Nov   11:30-13:20 GMT				
11:30	Chairperson's Opening Remarks Maithreyi Seetharaman, Forum Chair			
11:35	Call to Action: Andrew Jones, Director of Industrial Intermediates and Infrastructure business, <b>Dow</b>			
11:40	Climate Leaders Spotlight Green hydrogen production and longer-term export opportunities in Portugal João Galamba Matos Fernandes, Deputy Minister and Secretary of State for Energy, Portugal			
11:50	Climate Leaders Spotlight Global investment opportunities Shiva Dustdar, Head of Division – Innovation Finance Advisory, European Investment Bank			
12:00	Hybrid Panel  What are the new policy and finance models for 'hydrogen valleys' / 'hydrogen clusters' / 'hydrogen economies'?  • What support mechanisms are needed – so these become sustainable and self-sustaining?  • How are principles like fairness be brought into policy / regulation and financial models?  • How can European nations work together regarding energy demand / supply and collaborate with other nations to achieve net zero?			
	Speakers: Rosalinde van der Vlies, Director Clean Planet, European Commission Bart Biebyuck, Executive Director FCH Philipp Braunsdorf, Head of the Hydrogen Coordination Office, National Organisation Hydrogen and Fuel Cell Technology (NOW GmbH) Filippo Gaddo, Director, Energy Investor Advisory, Arup Daria Nochevnik, Director for Policy and Partnerships, Hydrogen Council			
	Chair: Maithreyi Seetharaman, <b>Forum Chair</b>			
12:50	Climate Leaders Live  How can policy best support emerging hydrogen models?  Andrew Jones, Director of Industrial Intermediates and Infrastructure business, <b>Dow</b>			
13.10	Climate Leaders Spotlight David Bryson, Chief Operating Officer and Chief Sustainability Officer, Uniper			
13.25	Chair Closing Remarks Maithreyi Seetharaman, Forum Chair			
13.30	Lunch Break until 14:15			

### Session 3 – Decarbonising heat for communities

Decarbonising heat is an issue affecting everyone. Heating homes is a necessity. In the UK and other countries with a significant natural gas network – hydrogen conversion is a technically relatively straightforward process with hydrogen villages planned in the next few years. But the availability of hydrogen, distribution of costs, incentives, consumer engagement and protection are yet to be determined.

	11 NOV   14:15 -15:55 GIVI	
	14:15	Chairperson's Opening Remarks
ı		Maithreyi Seetharaman, Forum Chair

11th November, Innovation Zone, Cessnock Quay, COP26

14:20	Partner Opening Remarks
	Leading the transition to low carbon heating
	Karen Boswell OBE, Managing Director, Baxi Heating
14:25	Climate Leaders Spotlight
	Innovation to decarbonise
	Mark Talyor, BEIS
14:35	Hybrid Panel
	Engaging the public regarding the need for change and tackling the 'hassle-factor' in any decarbonisation of heat in homes:
	How to market products in a not-yet hydrogen world?
	Cost is the fundamental concern of consumers – can we allay concerns?
	Hydrogen villages and towns – bringing communities into decision-making
	Speakers:
	Angela Needle, Director of Strategy, Cadent Gas
	Ita Kettleborough, Deputy Director Energy Transition Commission
	Federica Sabbati, General Secretary, European Heating Industry
	Senior representative, Government of Quebec
	Chris Goodall, Independent energy expert and author, Carbon Commentary
	Marieke Abbink, Managing Director, New Energy Coalition
	Chair:
	Maithreyi Seetharaman, Forum Chair
15:15	Climate Leaders Live:
	How is the UK government progressing the strategic option of hydrogen for domestic heating?
	To what extent is it technically feasible to use hydrogen?
	Jeff House, Head of External Affairs, <b>Baxi Heating</b> in conversation with Mark Taylor, Deputy Director for Energy, UK Government's <b>Department for Business, Energy, and Industrial Strategy (BEIS)</b>
	Maithreyi Seetharaman, Forum Chair
15:30	Call to Action
	Japan's approach with regards to hydrogen and R&D
	Ohira Eiji, Director General, Fuel Cell and Hydrogen Technology Office New Energy and Industrial Technology Development
	Organization (NEDO) Japan
15:35	Chair Closing Remarks:
	Maithreyi Seetharaman, Forum Chair
15:40	Break until 16:15

Session 4	Session 4 – Hydrogen: Next steps		
11 Nov   :	11 Nov   16:15 –17:25 GMT		
16:15	Chairperson's Opening Remarks Maithreyi Seetharaman, Forum Chair		
16:20	Call to Action  Hydrogen as part of the green mix to achieve net zero  Clare Lavelle, Director, Scottish Renewables		
16:25	Call to Action MHI		
16:30	Call to Action Baker Hughes		

11th November, Innovation Zone, Cessnock Quay, COP26

16:40	Hybrid Panel
	Hydrogen as an energy carrier has good potential for clean, efficient power across the transport sectors — and it's emerging as a significant element of the future fuel mix.
	For transportation fuel cells, hydrogen needs to be cost-competitive with conventional fuels and technologies.
	Speakers:
	Roxana Bekemohammadi Executive Director, Western States Hydrogen Alliance (USA)
	Raphael Schoentgen, CEO, <b>Hydrogen Advisors</b>
	Frank Wolak, CEO, <b>FCHEA</b>
	Maria Paz De La Cruz, CEO <b>H2 Chile</b>
	Chair:
	Maithreyi Seetharaman, <b>Forum Chair</b>
17:20	Chair Closing Remarks
	Maithreyi Seetharaman, <b>Forum Chair</b>
17:25	Summit closes