## ATTACHMENT 1 – Briefing

## MINISTERIAL ENGAGEMENT BRIEFING: European Hydrogen week Brussels visit 24-25<sup>th</sup> October

Cabinet Secretary for Net Zero, Energy and Transport

What	Brussels visit during European Hydrogen Week		
	This pack contains specific briefing products for the engagements in the visit, along with core briefs for cross cutting topics.		
Where/	24 – 25 October 2022		
When	Scotland House Brussels, Schuman 6, Brussels.		
Why	To showcase Scotland's significant hydrogen and wider renewables potential, during the important EU Hydrogen week.		
	This is a time where the EU is reshaping how it meets it energy demands, both in light of carbon targets and because of the Russian invasion of Ukraine and genuine energy security concerns — with significant new policy and monetary investments being made into Hydrogen.		
	This is a strong opportunity to highlight Scotland's relevance to the EU's ambitions on decarbonisation, as a potential Hydrogen exporter and our desire to work in partnership to deliver these shared goals.		
Supporting officials	[redacted under 38(1)(b) exemption]		
Briefing	Annex A: Overview, scene setter		
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### ANNEX A: OVERVIEW, SCENE SETTER

European Hydrogen week brings together the EU's Hydrogen stakeholders in one place – focussing on both policy and commercial interests.

The EU is reshaping how it meets its energy demand, both in light of carbon targets and the Russian invasion of Ukraine and genuine energy security concerns. They are prioritising a transition to renewables, in line with Fit for 55 proposals with a particular focus on the production and import of green hydrogen (as per REPowerEU publication and associated submission in Annex N).

Now is the time to influence the EU both in terms of the standards and conditions they are setting for importing renewable hydrogen into the EU (which will apply across all Member States), as well as showcasing Scotland as a forward-leaning partner to work and share best practice with to achieve net zero.

Currently the EU is looking to Norway, North Africa and the Middle East in terms of potential importers of green hydrogen – where the EU is looking to purchase as block. This is an opportunity to reframe how they consider Scotland and ensure the EU & key interlocutors consider Scotland to be a potential importer (if not the primary importer) – making a strong case for them to 'think Scotland' as a secure supplier of renewable hydrogen based on geographical proximity, shared values, experience in energy production and the stability of potential supply.

### The objectives are:

- Establish relationships with key EU interlocutors
- Showcase Scotland as a potential hydrogen importer to the EU
- Explain to key interlocutors Scotland's net zero ambitions, current use of renewables and cement Scotland as a key partner to work with (and learn from) as we transition to net zero e.g. our approach on alignment and ambition of independence.
- Establish relationships with Belgium at a federal and regional level both at a
  political level and in terms of future infrastructure, as Belgium's energy
  infrastructure could be central for imports to the continent.

### The visit will include:

- 1. A high level policy roundtable on hydrogen at Scotland House Brussels, convened by you and bringing together key European regions and stakeholders
- 2. Attending the European Hydrogen Week networking event, where you will have bilaterals with the CEOs of Hydrogen Europe and the Clean Hydrogen Partnership, as well as hearing speeches on topics of interest, with an opportunity for further networking.
- 3. Bilateral meetings on the Tuesday morning with; i) the North Netherlands Regional Minister, who is also CEO of the North Sea Coalition and ii) the Belgium Minister for Climate, Environment and the Green Deal. [Note: This meeting did not take place and therefore no note for it is enclosed in FOI response attachment 3]
- 4. A media briefing with Politico Energy correspondent focussed on Scotland's renewables and hydrogen potential.

### **ANNEX B: VISIT ITINERARY**

## Monday, 24th October

Time (CET)	Activity	Further details
13:10	Arriving in Brussels South Charleroi	The chauffeur will be expecting Mr Matheson at Charleroi arrivals. They will be holding a sign for "Scotland House Brussels", and will guide the delegation to the ministerial car. The journey from Charleroi airport to Scotland House Brussels is expected to take approximately one hour (pending traffic).
	Travel to SHB Brussels	Possible briefing on route
14:30/15:00	Arrive SHB Brussels	Traffic dependent
14:30/15:00 - 15:30	Briefing with officials and meeting with the Director of SHB Martin Johnson	Opportunity to meet the Director, receive further briefing and meet the Brussels team
15:30 – 17:00	Hydrogen Roundtable event at SHB	Senior officials across Hydrogen policy inc national and regional partners, industry and nongovernmental stakeholders
17:00 – 18:00	Downtime and dinner	Opportunity for dinner and quiet time ahead of the reception
18:00 – 18:30	Transfer to EU Hydrogen week 'Autumn Reception'	Walking or public transport to event, accompanied by Martin, [redacted under 38(1)(b) exemption]
18:30 – 19:00	Bilateral with Bart Biebuyck (Executive Director at Clean Hydrogen Partnership)	At the venue reception in private space
19:00 – 19:30	Bilateral with Jorgo Chatzimarkakis CEO of Hydrogen Europe	At the venue reception in quiet area of networking space
19:30 – 20:30	<ul> <li>Watch speeches at Hydrogen Europe networking event:</li> <li>Welcome and introduction</li> <li>Story 1: A Green Steel Revolution – Martin Pei, Chief Technology Officer, SSAB</li> <li>Story 2: Building a Solar System – Thierry Lepercq, Founder and President, HyDeal Ambition</li> </ul>	

	<ul> <li>Story 3: Extracting Every Joule – Danica Maljković, CEO, Indeloop</li> <li>Story 4: Heaven on Earth – Patrick Cnubben, Director of Hydrogen Strategy, New Energy Coalition</li> </ul>	
20:30 – 21:00	Networking and brush by meetings	
21:00		Walking (10-15 mins) or public transport to hotel
21:15	Arrive at hotel	

## Tuesday, 25th October

Time	Activity	Further details
07:30/08:00	Breakfast at hotel	Offer of officials to join for briefing
08:30	Walk to SHB	5 – 10 min walk
08:45	Arrive at SHB	To be met by Martin
09:00 – 10:15	Meeting with North Netherlands (Drenthe) Minister Tjisse Stelpstra and Executive Secretary of the North Sea Commission	To discuss NL approach to hydrogen backbone infrastructure and the EU's hydrogen backbone proposals.
10:15 – 10:55	Coffee break	At SHB
11:00 – 11:30	[Media interview on Scotland's Hydrogen potential with Politico Brussels energy correspondent America Hernandez	At SHB
11:35 – 12:00	Transfer from SHB to Belgium federal ministry	Taxi or metro
12:00 – 13:00	Meeting with Belgium Minister of the Climate, the Environment, Sustainable Development and Green Deal - Zakia Khattabi	To discuss Scotland's cross cutting net zero ambition and potential – Under 2 Coalition, COP 27 and CBD COP 15
13:00	Depart to Airport Brussels South (Charleroi)	Car waiting to depart to airport
17:05	Plane departs to Edinburgh	

# ANNEX C: HIGH-LEVEL POLICY ROUNDTABLE, SCOTLAND HOUSE BRUSSELS

Engagement title	High-level roundtable on North Sea cooperation to deliver the renewable hydrogen revolution	
Engagement timings	Monday 24th October 2022, 1530 - 1700 CET	
Venue and full address	Scotland House Brussels	
Background and purpose	Roundtable organised by Scotland House Brussels and SG Hydrogen officials to provide a platform to strengthen Scotland's reputation as an ambitious and credible partner in the European hydrogen market by presenting our key strengths and our openness to collaborate to resolve key challenges and realise synergies across the North Sea geography. Your participation as Cabinet Secretary will underline Scotland's credibility and commitment as a future partner in the hydrogen economy.	
Mooting attendess	<ul> <li>Objectives</li> <li>To establish and strengthen relationships with key EU interlocutors and influencers active in the hydrogen space;</li> <li>To establish and strengthen links with key European regions leading the transition to a green hydrogen economy;</li> <li>To showcase Scotland as potential hydrogen exporter to EU;</li> <li>To expand European membership of the Net Zero Futures Policy Forum Green Hydrogen Taskforce;</li> <li>To promote Scotland's net zero ambitions, current use of renewables and cement Scotland as a key partner to work with (and learn from) as Europe transition to net zero.</li> </ul>	
Meeting attendees	See below	
Strategic context and key messages	<ul> <li>Scotland is a geographically close and reliable partner that is advanced in its preparations for the production of green hydrogen; part of the solution to current energy security and climate issues</li> <li>We are keen to engage in practical partnerships with North Sea allies to develop the sector more quickly and facilitate imports using our resources and infrastructure.</li> </ul>	
Supplementary information/Sensitivities	• [81 words redacted under 32(1)(a) exemption]	

Official support and mobile number	[redacted under 38(1)(b) exemption]
Attached documents	(i) Panel Format
	(ii) Suggested speaking points
	(iii) Attendees / biographies

### 1. PANEL FORMAT

- There will be approximately 12 guests as part of the high-level roundtable, the roundtable will be supported by a moderator and there will then be observers from partner organisations, the Devolved Governments, UK Mission and Scottish Government colleagues sitting behind.
- Detailed speaking notes are included below and you will be supported by officials from Scottish Government and Scottish Enterprise.
- After a short introduction of all panel guests, the moderator will pose an initial scene-setting question to you

How have events over the past year affected the development of the hydrogen economy in Scotland? - with a follow up question for other high level guest to get the conversation started.

- The moderator will then move through the following three core themes for discussion, with panellists invited to respond directly to the questions and also the answers of other panel members (to note invitees have seen the themes in advance) - she will regularly turn to you to check if there are any additional points to raise:
  - 1. Priority areas for international collaboration to realise the high levels of North Sea hydrogen ambition
  - 2. How to co-ordinate production and supply in Northern Europe while recognising the competitive nature of the energy market
  - 3. Role of onshore and offshore wind generation ambition in achieving the right energy mix for the future

### 2. SUGGESTED POINTS TO DRAW

[As specified above this first question will be put to you first by the moderator]

# How have events over the past year affected the development of the hydrogen economy in Scotland?

- The ongoing conflict in Ukraine has generated a shift in the drive behind the energy transition. Europe now faces an energy trilemma – with the need to balance cost, meet climate and environmental goals and, now to ensure energy security.
- This has resulted in increased momentum within Scotland, and across Europe, and renewed impetus to promote the deployment of renewable energy at pace in support of energy resilience.

- However, in Scotland we think the scale of this challenge is matched by the scale
  of the opportunity it creates, and it is clear that hydrogen will play a leading role
  sooner than anticipated.
- We are more committed than ever to realising our ambition to produce 5GW of renewable and low carbon hydrogen by 2030, rising to 25GW by 2045.
- We are also taking action to ensure we are well positioned to support the energy security of our neighbours in Europe through the export of hydrogen and hydrogen-derived products such as ammonia.
- Scotland has the potential to export approximately 2.8 million tonnes of hydrogen annually by 2045 and our export plan is under development.
- We are also likely to have also the electrolyser deployment demand and supply chain strengths to be attractive to electrolyser system manufacturing, as highlighted in the assessment into the state of electrolyser manufacturing globally we published earlier this month.
- But Scotland can't do this alone; now more than even we need to work in partnership. Energy security and the climate emergency are global challenges and it is important that the right solutions are implemented in the right places – that's why I'm particularly pleased to have partners from across Northern Europe here this afternoon.
- 1. What are the priority areas for international collaboration in realising the high levels of ambition coalescing around the North Sea basin?

### Transport and infrastructure:

- We all need coherence in transport and infrastructure planning Scotland is already reviewing our own ports and terminal infrastructure preparedness for hydrogen export.
- In parallel to looking at our domestic networks, we are engaging with key European ports such as the Ports of Rotterdam and Hamburg which we expect to become major hydrogen hubs.
- We want to deepen this collaboration to ensure that our export infrastructure is compatible with key import infrastructure in Northern Europe.
- In addition to planning for shipping routes, we must also consider pipelines as they have been illustrated to be the cheapest option for transporting large volumes of hydrogen across long distances.
- A strategic and coordinated approach should be taken to developing cross border pipeline infrastructure to connect centres of production in the North Sea basin, including Scotland, to European networks to help bring prices down for all.

- The Scottish Government has funded the Net Zero Technology Centre to assess our potential to connect to a European Hydrogen Backbone by repurposing and optimising existing pipeline infrastructure or through the development of new infrastructure.
- As well as transport solutions, we recognise the need to develop medium-long term hydrogen storage solutions and a network that supports a stable supply.
- We also need clear requests from our partners, on the volume of hydrogen they
  need and the carrier they prefer it to be delivered with this will help provide
  assurance to producers and guide our future infrastructure planning.

### Regulation:

- We are working with the UK Government to ensure that regulations do not act as a barrier to trade and investment.
- It will be critical to collaborate internationally to ensure that regulatory frameworks and hydrogen certification schemes developed in the UK align with international frameworks, particularly the EU.

### How we're already collaborating:

- We are already recognising the value of international collaboration in addressing the key policy and delivery challenges relating to realising the potential of hydrogen as an energy vector.
- For example, Scotland is Co-Chairing the Net Zero Futures Policy Forum's Hydrogen Taskforce alongside South Australia.
- Part of our work programme for this year will explore what actions sub-national
  governments can take to address market access barriers for low carbon
  hydrogen and develop a shared understanding of the technological barriers and
  evidence gaps around the export of hydrogen such as hydrogen carriers, port
  infrastructure, and storage solutions for the transport of hydrogen.
- We are keen to ensure that this taskforce is inclusive to all states and regions
  with an interest in addressing these policy challenges and would welcome further
  discussion on this with any interested parties.
- In addition to this multilateral forum, we are already working directly with our trusted partners in Europe. For example, we already have MoUs in place with Hamburg and North Rhine Westphalia, and a Letter of intent was signed with Bavaria in May of this year.
- Scotland wants to increase the breadth and depth of this collaboration as progress accelerates with a particular focus on our likely trade partners, particularly in Northern Europe.

- Research will also be key to meeting the practical challenges of scaling up hydrogen production and deployment and we are keen to play our part in ensuring that funding is available to support this, whether that is through funding the RSE Scotland-Germany Hydrogen Research Scheme, participating in the Vanguard Initiative Hydrogen Pilot, or our recently-launched £10m Hydrogen Innovation scheme.
- 2. How can we work together to ensure a coordinated approach to hydrogen production and supply in Northern Europe while recognising the competitive nature of the energy market?
- Each country or region will have its own capabilities that will determine where it can play a competitive role in the hydrogen value chain.
- The Scottish Government is undertaking in-depth analysis of the supply chain opportunities in Scotland to identify our own strengths and gaps.
- Earlier this month we published our Assessment of Electrolysers Report, which
  provided an assessment of the existing supply chains for electrolyser
  components in Scotland and existing manufacturing capability.
- This highlighted our significant supply chain strengths, the pre-existing supply chains for many of the common components needed for electrolysers and the attractive market conditions to encourage electrolyser manufacturers to locate in Scotland.
- People are also a key part of the supply picture skills to produce, manage, compress, transport, store, and reconstitute gas will be needed and many of these skills and the supply chain requirements for future hydrogen systems and infrastructures are already in Scotland's oil and gas sector. We expect that this expertise will become a valuable commodity in itself.
- Of course, we cannot ignore the geographic facet of the supply chain. Scotland is just 700km away from the Netherlands and 750km from the North German coast, therefore we are exceptionally well-placed to play a role in supply to Northern Europe.
- The true value of a coordinated approach will lie in recognising and making the most of the unique capabilities and assets that we each bring to the table, to maximise our collective capacity.
- We welcome opportunities like this, to share information that will lead to productive partnerships to grow all of our hydrogen economies.
- 3. Alongside hydrogen, many governments in Europe are scaling up their onshore and offshore wind generation targets. How do we make the most of this to achieve the right energy mix for Europe?

- The economic case for investment in green Hydrogen hinges on driving down the cost of renewable electricity production. For Scotland, this naturally means production from our extensive offshore and onshore wind resources.
- ScotWind is the world's largest offshore wind leasing round, putting us at the forefront of the global development of offshore wind and represents a massive step forward in our net zero transformation.
- The total maximum possible capacity of all ScotWind bids is now more than 28GW.
- Many of the consortia successful in securing lease options have ambitions for renewable hydrogen and this would help make significant progress towards our ambition of generating 5GW of renewable and low carbon hydrogen by 2030 and at least 25GW by 2045.
- In 2021, a Franco-Scottish research and development collaboration was completed that reviewed the opportunities for Scottish and French organisations to work together to deliver collaborative innovation in floating wind and hydrogen.
- This highlighted the ample opportunities for growth in these sectors, and for Scottish and French organisations to work together to realise those opportunities and demonstrated the role of new innovations and emerging technologies in integrating offshore and hydrogen sectors within our energy supply.
- As well as looking to future developments, we can also share learning from
  existing Scottish projects such as the Surf 'n' Turf and the "BIG HIT" projects,
  which are demonstrating the production of hydrogen from wind and tidal energy
  in Orkney. I am certain the experiences of delivering this innovative project will be
  of particular to other island and coastal communities and regions.

### 3. ATTENDEES

Attendance features a mix of key regional North Sea partners, the European Commission, industry representatives' and key programme partners such as Vanguard. Detailed biographies can be found below – to note some institutions and organisations have confirmed attendance but are still deciding who from their organisation is best placed to join – we will follow up with an updated list on Friday.

- 1. European Innovation Council (Francesco MATTEUCCI)
- 2. Hydrogen Denmark (Tejs LAUSTSEN JENSEN)
- 3. Baden-Württemberg Regional Office (Victoria GRUBER)
- 4. WindEurope (Giles DICKSON)
- 5. Minister for Drenthe and Executive Secretary of the North Sea Commission (Tjisse STELPSTRA)
- 6. Permanent Representation of Belgium to the EU Delegation of Flanders (Matthias DE MOOR)
- 7. DG ENV (Michail PAPADOYNNAKIS)
- 8. Scottish Enterprise (Irina BONAVINO)
- 9. Norway Stavanger Regional office (individual representing TBC)

- 10. Renewable Hydrogen Coalition (individual representing TBC)
- 11. Vanguard Initiative (individual representing TBC)
- 12. Sweden Gävleborg Regional office (individual representing TBC)
- 13. Flanders Chancellery and Foreign Office (Rhiannon BUYENS)
- 14. DG REGI for European Commission (individual representing TBC)
- 15. National Grid (hydrogen lead individual representing TBC)

Francesco has over 20 years of experience in materials science research and corporate R&D in renewable energy production and storage.

He has also co-founded and directed several start-ups and joint-labs managing public-private partnerships, and managed a number of publicly funded projects, as well as the Emilia Romagna Climate-KIC Innovation Centre, Dhitech Living Lab on Nanotechnologies, Emilia-Romagna Greentech Clust-ER.

He was the scientific expert within the Vanguard Initiative ADMA Pilot, co-authored over 30 scientific papers, 5 patents, and was Visiting Professor at the University of Ferrara.

2021 – present: Programme Manager in Green technologies at the European Innovation Council and SMEs Executive Agency (EISMEA)

Focus on advanced materials for energy and environmental sustainability

2020 - 2021: Program Manager at the European Innovation Council and SMEs Executive Agency (EISMEA)

2019 - 2020: Researcher at CNR Nanotec

2018 - 2020: Senior Manager at Clust-ER Greentech Energia e Sviluppo Sostenibile

A private association of companies, research centres and training institutions that work together to support competitiveness of the Energy and Sustainable Development sectors

2018 - 2020: Senior Manager at Clust-ER Greentech Energia e Sviluppo Sostenibile

2000 - 2004: PhD in Applied mineralogy and inorganic crystallography – University of Ferrara

1994 - 2000: Master of Science - University of Bologna



FRANCESCO MATTEUCCI Programme Manager in Green technologies

Organisation: European Innovation Council and SMEs Executive Agency (EISMEA)
The European Innovation Council (EIC) was established under the EU Horizon Europe programme. It has a budget of €10.1 billion to

**Goal**: support innovation, from early-stage research to proof of concept, technology transfer, and the financing and scale up of start-ups and SMEs.

**Set up**: 2021

Location: Brussels, Belgium

Website: European Innovation Council

Prior to his appointment as CEO of Hydrogen Denmark, Mr. Jensen served as an advisor at the largest Danish pension fund, and public affairs specialist for the automotive industry. In that capacity he was the national Danish representative to the European Automobile Manufacturers' Association (ACEA).

He began his career as personal advisor to former Danish Prime Minister Poul Nyrup Rasmussen.

2015 – present: CEO at Hydrogen Denmark

Focus on advanced materials for energy and environmental sustainability

2019 - present: Board Member - the Danish government Energy Technology and Development Program (EUDP)

2019 - present: Chairman of the Board – Nordic Hydrogen Partnership

2004 - 2005: Master of Political Science – University of Copenhagen



TEJS LAUSTSEN CEO

**Organisation**: Hydrogen Denmark

Hydrogen Denmark is an industry association representing Danish stakeholders (businesses, research and public institutions and network organisations) in the field of hydrogen, Power-to-X\* and fuel cells.

**Projects**: 30 active hydrogen and Power-to-X projects across Denmark (as of August 2022)

Website: <u>Hydrogen</u> <u>Denmark</u>

\* Power-to-X is an umbrella term for different ways of generating energy, namely power-to-gas, power-toliquid, power-to-fuel, powerto-chemicals and power-toheat

2018 – present: Head of Office of the Commissioner for European Integration and the Rule of Law

Ministry of Justice and European Affairs of Baden-Württemberg/ Representation of the State of Baden-Württemberg to the European Union

2009 - 2018: Deputy Head of Unit, Political Communication

Representation of the State of Baden-Württemberg to the European Union

2005 - 2009: Policy Advisor European and international Affairs

Representation of the State of Baden-Württemberg to the federation



VICTORIA GRUBER
Head of Office of the
Commissioner for European
Integration and the Rule of
Law

### Organisation:

Representation of the State of Baden-Württemberg to the European Union

### **Biography**

Prior to his appointment as CEO of WindEurope, Giles worked for the French engineering company Alstom where he was vice-president for global public affairs from 2008 to 2015. He was a civil servant in the U.K. government from 1992 to 2008, working mostly on European affairs. Giles is also chairman of the independent advisory council of the European Network of Transmission System Operators for Electricity (ENTSO-E).

2015 - present: CEO, WindEurope

2008 - 2015: Vice-President, Alstom

2006 - 2008: Counsellor, UK Representation to the EU

2004 - 2006: Head of Drugs Section, UK Foreign Office

1999 - 2003: First Secretary, British Embassy in Madrid

1986 - 1991: University of Oxford, Brasenose College



GILES DICKSON CEO

**Organisation**: WindEurope is an association of over 400 companies and organisations across the value chain of onshore and offshore wind

**Goal**: WindEurope seeks to facilitate national and international policies and initiatives which strengthen the development of European and global wind

energy markets, infrastructure and technology

Location: Brussels, Belgium

Website: WindEurope

### **Biography**

Ongoing: Regional Minister of the Province of Drenthe in the Northern Netherlands

Ongoing: Co-Chair of the CPMR (Conference of Peripheral and Maritime Regions) North Sea Commission

Ongoing: Member of the Committee of the Regions (for the EPP – European People's Party) - - Member of the Commission for the Environment

- Climate Change and Energy (ENVE)
- Commission for Economic Policy (ECON)

2011 – present: Chairman of the Christian Union in provincial states.

**2007 – present: Province of Drenthe** Committee member

2000-2013: municipal secretary at the municipality of Midden-Drenthe

In 2013 he made the switch to education and became Chairman of the Executive Board of the Reformed School Group in Groningen.

**1991-1995:** member of parliament in North Holland - He later continued his official career at the province of Noord-Holland as head of legal affairs and head of administrative organisation and strategy.



Tijsse Stelpstra

**Dutch** politician

Regional Minister of the Province of Drenthe in the Northern Netherlands

Member of ChristenUnie

Born on 11 June 1961 in Leeuwarden

"Climate and energy is a very dynamic subject. Four years ago I was completely new to this field, but I am very happy that I can do it for another period of time. Climate change has major consequences for us as humans. That touches me deeply and I want to help do something about it. But the transition to new energy must also be realized with common sense and acceptance. Everyone should be able to come along. So we talk a lot about that with our residents. With the goal in mind, what is important to you and how can you also participate in energy projects yourself? That's what I'm going to do."

Matthias De Moor is the diplomatic representative of Flanders to the EU.

2022 – present: General representative of Flanders to the EU, Permanent Representation of Belgium to the EU

2013 - 2021: Flemish Government

1989 - 1993: Master of Arts in Political Science, University of Bonn



MATTHIAS DE MOOR
General representative of
Flanders to the EU

**Organisation**: Permanent Representation of Belgium to the EU – Delegation of Flanders

### Overview

Marine Environment and Clean Water Services sits within the Zero Pollution Unit of the directorate

- Commissioner : Virginijus Sinkevicius

- Director-General : Florika Fink-Hooijer

- Deputy Director-General : Patrick Child



MICHAIL
PAPADOYANNAKIS
Senior Expert

Marine Environment and Clean Water Services

### Organization:

Directorate-General for Environment DG ENV,

European Commission

2022 – present: Energy Team Specialist, Scottish Enterprise

- Working on the Vanguard Initiative Hydrogen Pilot
- Working on Horizon Europe project development in the hydrogen space

2020 – present: Chair, Energy Institute Young Professionals Network

2017- 2019: Change Officer, Aberdeenshire Council

2013-2014: MsC Corporate Communications and Public Affairs, Robert Gordon University

2006-2010: BsC International Studies, Central University of Venezuela



IRINA BONAVINO Energy Team Specialist -Hydrogen

**Organisation**: Scottish Enterprise

### **Organisation**

### The Stavanger Region European Office

#### **About**

The Stavanger Region European Office current key priorities are Smart City, Health, Energy, Climate, and Food. The office has 25 members of staff, covering municipalities, public and private organisation, as well as academia.

#### **Focus**

- Production of renewable energy, hydrogen and floating windmills in particular
- Maritime sector
- Transport and infrastructure
- Education and research

### Hydrogen

the Norwegian multinational company Hydro operates 13 power plants In the Stavanger region: Lysebotn 2, Tjodan, Flørli, Maudal, Breiava, Oltedal, Oltesvik, Hjelmeland, Sviland, Hetland, Hauskje, Jørpeland and Dalen.

### **EU** projects

<u>FLAGSHIPS</u>: The European innovation project has been awarded €5 million from the EU to contribute to the construction of two new zero-emission hydrogen fuel cell vessels in Lyon, France and one in Stavanger, where hydrogen was used to power a passenger and car ferry operated by Norled as part of the local public transport network.

<u>TrAM:</u> is the world's first fully electric passanger ferry - funded through Horizon 2020 and coordinated by the Rogaland County Council. The project is initiated by business cluster NCE Maritime CleanTech, and was awarded 12,9 million euros in EU funding – one of the highest amounts ever awarded a single EU project. 70% of the funding reached Norwegian project partners.

Construction started in June 2021, and the plan is for the ferry to start running in 2022. The ferry will operate between Stavanger, the city islands and Hommersåk. The TrAM consortium consists of 13 European partners from Germany, the UK, Belgium, Finland and Greece and Norway. The plan is for Medstraum to be duplicated within the consortium, allowing for two replicas; one passanger transport vessel on the Thames in London, and one to serve inland waterways in Flanders.

Organisation	Renewable Hydrogen Coalition
About	Launched in 2020, Renewable Hydrogen Coalition was set up by WindEurope and SolarPower Europe, and supported by Breakthrough Energy. It aims to make Europe the world leader in renewable hydrogen.
Chair	Ignacio S. Galan, Iberdrola
Impact Director	Francois Paquet
Organisation	Vanguard Initiative
About	The Vanguard Initiative (VI) gathers 39 industrial regions in Europe, focused on stimulating industrial innovation and building value-chains based on complementarities in regional smart specialisation strategies.
	It aims to facilitate interregional collaboration, stimulate interregional innovation investments, strengthen open innovation, and speed up the introduction and market-uptake of new products and innovations.
Scottish involvement	Founding member of VI and active in several pilots, including the Hydrogen Pilot. The Scottish Government is the official member but different organizations, like Scottish Enterprise, are closely involved.
Core activity	The implementation of Pilot Projects, developed through the active participation of clusters, science parks, research institutes and universities in the member regions.
Hydrogen pilot	This fall, the new VI Pilot on Hydrogen was launched in Kracow. It is an interregional project that brings together 23 regions from all over Europe and it's led by Małopolska, Lombardy and Slovenia. Scotland is one of the partner regions. The following will be implemented as part of the Pilot activity and form its operational core:
	<ul> <li>Standardization of hydrogen pipelines and vessels in HYDRO-COMP</li> <li>Replacement of fossil fuels for Hydrogen in industrial processes H2</li> <li>Networking and Portfolios</li> <li>H2 in shipping (green H2, alternative fuels, certification)</li> <li>* The current chair region of the VI – East Netherlands, will participate in the roundtable</li> </ul>

### ANNEX D HYDROGEN RECEPTION BRIEFING

Who	Networking evening reception for Hydrogen Europe members – including two bilaterals with briefs included below.	
What	Bilaterals followed by networking event and reception	
Why	Excellent opportunity to engage with partners taking part in European Hydrogen Week.	
	European Hydrogen Week takes part on the outskirts of the city and this provides an excellent opportunity to engage with senior officials across the EU Hydrogen networks, listen to their priorities and promote Scotland's hydrogen export potential.	
Where	Hydrogen Europe Autumn Market - Hydrogen Europe Chau. de Louvain 24, 1210 Saint-Josse-ten-Noode, Belgium	
When	18:30 – 21:00 24 <sup>th</sup> October 2022	
	Bilaterals: 18:30 – 19:00 Bart Biebyuck, Chief Executive of Clean Hydrogen Partnerships  19:00 – 19:30 Jorgo Chatzimarkaris, CEO of Hydrogen Europe	
	<ul> <li>Agenda for reception:</li> <li>19:00 – 19:30 Registration and welcome drinks</li> <li>19:30 – 19:40 Welcome and introduction – Jorgo Chatzimarkakis, CEO, Hydrogen Europe &amp; Justin Jin, photographer and author</li> <li>19:40 – 19:50 Story 1: A Green Steel Revolution – Martin Pei, Chief Technology Officer, SSAB</li> <li>19:50 – 20:00 Story 2: Building a Solar System – Thierry Lepercq, Founder and President, HyDeal Ambition</li> <li>20:00 – 20:10 Story 3: Extracting Every Joule – Danica Maljković, CEO, Indeloop</li> <li>20:10 – 20:20 Story 4: Heavenn on Earth – Patrick Cnubben, Director of Hydrogen Strategy, New Energy Coalition</li> <li>Moderated by Jorgo Chatzimarkaki</li> <li>20:20 – 21:30 Networking reception – propose to leave event at</li> </ul>	
	21:00	
Likely themes	<ul> <li>Scotland's offer and potential on hydrogen</li> <li>Hearing about next steps at an EU level on hydrogen proposals as set out in REPowerEU, plus new commitments to a 'Hydrogen Bank' in the Commission's 2023 work programme</li> </ul>	

	Explore options for how we can best work together with both Hydrogen Europe and the Clean Hydrogen Partnership – despite us no-longer being a Member State
Media	Tweet from ScotGovBrussels account
Supporting official	Joni Smith, [redacted under 38(1)(b) exemption]
Attached documents	(i) Bilateral meeting – Bart Biebuyck (Key points to raise, background, biography)
	(ii) Bilateral meeting – Jorgo Chatzimarkakis (Key points to raise, background, biography)

## Bilateral with Bart Biebuyck 18:30 – 19:00

Who	Bart Biebuyck, Executive Director of the Clean Hydrogen Partnership
	The CHP is the Horizon Europe partnership focusing on hydrogen (Fuel Cells and Hydrogen Joint Undertaking during the previous programming period). Scottish partners have benefited – and continue to benefit – from funding managed by the Clean Hydrogen Partnership
What	Short meeting Cabinet Secretary for Net Zero, Energy and Transport
Why	The Clean Hydrogen Partnership is the key stakeholder at European level in terms of hydrogen funding, as it manages most of the hydrogen funding under Horizon Europe, the largest research and innovation programme in Europe.  Excellent opportunity for the Scottish Government to build on strong Scottish reputation in delivering projects with the Clean Hydrogen Partnership and strong intention to continue to participate in CHP funded projects, as well as promoting the EETF
Where	Hydrogen Europe Autumn Market Claridge Events Chau. de Louvain 24, 1210 Brussels
When	As of 19:00, 24 October 2022
Media	None planned

Supporting official	[redacted under 38(1)(b) exemption]
Attached documents	(i) Key points to raise (ii) Background (iii) Biography

### (i) Key Points to Raise

- It is clear that, in light of geopolitical events, we need to move even faster than anticipated to develop our shared hydrogen economies, which will play a critical role both in the transition to net zero and to ensure energy resilience in Europe
- Scotland is primed to be a major producer and exporter of green hydrogen, and we are developing our export plan to supply <u>local</u>, <u>reliable</u>, <u>green</u> hydrogen to our neighbours in Europe.
- Scotland is keen to work in partnership with European partners to facilitate the most cost effective, sustainable and secure supply of green hydrogen to meet Europe's energy needs.
- Research and innovation collaboration: highlight continuous access to
  Horizon Europe research programme and how this is key for the development
  of a hydrogen economy in Scotland. Even if the UK Association to Horizon
  Europe is not completed, the UK Government has outlined domestic plans to
  enable UK based stakeholders to continue to work on Horizon Europe
  projects as third country partners.
- There is strong interest from Scottish stakeholders (industry, Local Authorities, Universities) to work with European partners on upcoming hydrogen topics in the Horizon Europe programme, including the upcoming Clean Hydrogen Partnership call early next year. We have partners with great expertise and great project experience.
- The Scottish Government is eager to continue to promote international collaboration for deployment projects in the hydrogen sector: mention the Hydrogen Innovation Fund, which was set up by SG to fund deployment projects in Scotland and which is open to international collaboration. The current call for applications call for applications closes at the end of October.
- The remaining second tranche of our planned hydrogen investment programme is expected to launch early next year and will focus on supporting rapid renewable hydrogen production from Scotland's abundant renewable energy resources This will support hydrogen production for domestic use in Scotland and establish Scotland's place in Europe for the production and export of renewable hydrogen. While the eligibility criteria for this second tranche of investment is currently being developed, it's likely that the funding will support international collaborations.

### (ii) Background information:

 Examples of previous projects funded by the Clean Hydrogen Partnership: Aberdeen Hydrogen Bus Project in Aberdeen and BIG HIT hydrogen valley project in Orkney

### On the EETF:

The draft Hydrogen Action Plan, November 2021, committed £100 million hydrogen funding for 2022-26 through the Emerging Energy Technologies Fund (EETF).

- This capital fund will help projects become operational/produce renewable hydrogen by 2025/26 to kick start the hydrogen economy in Scotland.
- In June 2022, we launched the first tranche of the EETF hydrogen investment programme via the £10 million Hydrogen Innovation Scheme with a focus on innovation in renewable hydrogen production, storage and distribution technology.
- The remaining second tranche of the EETF hydrogen investment programme
  is expected to launch later this year [note: This was picked up after
  submission as a factual error. As per above, the programme is expected
  to launch next year]. This flagship fund will focus on supporting rapid
  renewable hydrogen production from Scotland's abundant renewable energy
  resources, seeking to give Scotland first-mover advantage.
- This will support hydrogen production for domestic use in Scotland and establish Scotland's place in Europe for the production and export of renewable hydrogen.

### (iii) Biography:

### **Biography**

## 2016 – 2023: Executive Director of the Clean Hydrogen Joint Undertaking

Under his leadership, a strong emphasis on cooperation with cities and regions led to the formation of the European Hydrogen Valleys partnership

## 2013 - present: Vice president of the City of Tielt Council

Responsible for the local economy and education

**2006 - 2016: TOYOTA MOTORS Europe** Senior manager – drivetrain & hybrid cars

2003 - 2005: TOYOTA Japan

Calibration engineer

1999 - 2003: TOYOTA MOTORS Europe

Engineer



BART BIEBUYCK [Bi-buke]
Executive Director of the
Clean Hydrogen Joint
Undertaking

**Organisation**: The Clean Hydrogen Joint Undertaking or Clean Hydrogen

1994 - 1998: Master of Science – HAN University of Applied Sciences, Automotive engineering - Arnhem, the Netherlands	Partnership is a unique public-private partnership supporting research and innovation activities in hydrogen technologies in Europe.
	Formerly. the Fuel Cells and Hydrogen Joint Undertaking.
	Mission: contribute to the EU Green Deal and hydrogen strategy by funding of R&I activities
	Set up: 2021 Number of staff: 31 Location: Brussels, Belgium

## Bilateral with Jorgo Chatzimarkaris CEO of Hydrogen Europe 19:00 – 19:30

Who	Jorgo Chatzimarkakis, CEO of Hydrogen Europe
What	Short meeting Cabinet Secretary for Net Zero, Energy and Transport
Why	Hydrogen Europe is the key industry and research and innovation stakeholder in the hydrogen space at European level
Where	Hydrogen Europe Autumn Market
	Claridge Events
	Chau. de Louvain 24, 1210 Brussels
When	19:00, 24 October 2022
Media	None proposed
Supporting official	[redacted under 38(1)(b) exemption]
Attached	(i) Key points to raise
documents	(ii) Background
	(iii) Biography

### (i) Key Points to Raise

- As Jorgo has referenced in many occasions, Scotland has been one of the first nations to explore the hydrogen opportunity and the Scottish Government has a strong track record of supporting world-leading hydrogen demonstration projects in Scotland.
- With geopolitical events triggering an acceleration of efforts to reduce fossil fuel consumption, reduce reliance on Russian oil and gas, and increase hydrogen production and use in Europe, we are focused on taking action to ensure Scotland is prepared to play a key role in meeting the growing European and global demand for hydrogen.
- We will publish the final iteration of our Hydrogen Action Plan before the end of the year and within it we will clearly set out our commitment to realise our export potential.
- I welcome the opportunity that Hydrogen Europe and the Regional Pillars have offered Scotland to remain engaged with European partners. I know that this platform has been really useful to my policy officials to exchange information of the development of the sector and engage directly with other members.
- I'm aware that the Regional Pillars forum provides an opportunity to its members to present on ongoing projects, policy development and to exchange knowledge and I think it would be great if Scotland could use this to present its domestic and international ambitions to members of the group.
- This could ideally take place in the new year after the publication of our Hydrogen Action Plan.

### Suggested discussion points

- What are in Jorgo's views the major areas where international cooperation is required to assist the development of the international hydrogen market?
- How can we work together to ensure a coordinated approach to hydrogen production and supply in Northern Europe while recognising the competitive nature of the energy market?
- How can Scotland and Scottish stakeholders engage more closely with the Clean Hydrogen Alliance. We are aware that we can't be part of the Alliance, but we would like to follow the work of the Alliance more closely and think Scottish industry has a lot to offer as well to supply chain developments in Europe.

### (ii) Background information:

Hydrogen Europe has three pillars:

- Industry: several Scottish companies are members
- Research: EMEC are a member.

- Regional (sub national authorities): SG are a member, recently founded pillar

On the Hydrogen Europe Regional Pillar: The Scottish Government is a member of the Regional Pillar initiative organised by Hydrogen Europe which aims to improve the representation of regional and local authorities at European level in the field of hydrogen, facilitate the set-up of EU projects, increase the exchange of information with industrial players and help regions developing joint activities with Hydrogen Europe.

### On Scottish members of Hydrogen Europe:

Scottish members of Hydrogen Europe are: HySow, Logan Energy, Hydrasun, EthosEnergy, European Marine Energy Centre (EMEC)

+ Scottish Government via the Regional Pillar as described above

On the Flagship H2 expo Hydrogen Europe are organising through the week: SDI have been working with H2UB, a German organisation helping start-ups in hydrogen. H2UB managing the Start-up stand at the Hydrogen Europe Flagship H2 expo. Scottish company Logan Energy have been selected, after a competitive international process, to be one of the 12 international companies to join H2UB at the event and pitch on stage to potential investors - all funded by H2UB.

### On the Clean Hydrogen Alliance:

The European Clean Hydrogen Alliance brings together industry, public authorities, civil society and other stakeholders. Alliance members meet twice a year in the Hydrogen Forum to discuss the large-scale deployment of clean hydrogen technologies (through Important Projects of Common European Interest) and what this requires. Six thematic working groups meet throughout the year and focus on the hydrogen value chain parts.

The Alliance was established by the European Commission in 2020. Membership is limited to stakeholders based in EU member states. The Alliance is key at European level as it discusses and agrees major EU supply chain developments / projects.

### (iii) Biography:

#### **Biography**

Jorgo Chatzimarkakis is a German-Greek former politician and CEO of Hydrogen Europe. In 2015, he was appointed ambassador-at-large for the Greek government during the financial crisis.

From 2004 to 2014, Jorgo was a Member of the European Parliament for the German Freie Demokratische Partei (FDP), as part of the Alliance of Liberals and Democrats for Europe Group. During this time, he was a member of the committee for industry, technology, research and energy.

2016 - present: CEO, Hydrogen Europe

2015 - 2016: Business Consultant

2004 - 2014: Member of the European Parliament



JORGO CHATZIMARKAKIS
CEO

**Organisation**: Hydrogen Europe

- German Freie Demokratische Partei (FDP)
- Member of the Alliance of Liberals and Democrats for Europe Group

### Parliamentary Committees:

- Industry, Research, Energy (ITRE)
- Environment, Public Health and Food Safety (ENVI)
- Agriculture and Rural Development (AGRI)
- Internal Market and Consumer Protection (IMCO)
- Budgets (BUDG)

2002 - 2008: Lecturer at Saarland University

1989 - 1993: Master of Arts in Political Science, University of Bonn

Hydrogen Europe is a global CEO-led initiative of 132 energy, transport, industry and investment companies with a united and long-term vision to develop the hydrogen economy

Founding members: Air Liquide, Alstom, Anglo American, BMW Group, Daimler, Engie, Honda, Hyundai, Kawasaki, Shell, Linde, Total and Toyota

**Goal**: accelerate investment in the development and commercialisation of the hydrogen and fuel cell sectors

# ANNEX E - MEETING WITH TIJSSE STELPSTRA, REGIONAL MINISTER OF THE PROVINCE OF DRENTHE

Who	Mr Tijsse Stelpstra, Regional Minister of the province of Drenthe and Chief Executive of the North Sea Commission
What	An opportunity to hear from the experience of the North of Netherlands, their links with the Commission and North Sea Commission.
	This is an opportunity to directly hear from and engage on the Netherlands Hydrogen Backbone Projects, which links to the EU's Hydrogen Backbone plans.
Why	Excellent opportunity for the Scottish Government to forge stronger relations with the Northern Netherlands on key areas of shared interest in the hydrogen space (transition from oil & gas, green hydrogen production, skills).
	Opportunity to build on existing collaborations and strengthen links with a region that has expressed clear interest in working closely with Scotland on energy, and they have the potential to be a strong advocate for Scotland in discussions at EU level.
Where	Scotland House Brussels
When	09:00 – 10:00, 25 October 2022
Likely themes	<ul> <li>We have highlighted to the following areas of interest to Mr Stelpstra:</li> <li>Scotland being joined up on the Hydrogen Backbone Initiative</li> <li>Opportunities for collaboration on shared ambitions: skills, just transition, research &amp; innovation projects</li> </ul>
Media	Tweet from ScotGovBrussels account
Supporting official	[redacted under 38(1)(b) exemption]
Attached documents	(i) Speaking points (ii) Biography (iii) Note of meeting with Scottish Government - 14 October 2022

### (i) Suggested speaking points:

1. Welcome the opportunity to discuss key hydrogen opportunities and collaboration between Scotland and the Northern Netherlands. Delighted to build on the engagement last week with Martin Johnson, EU Director at SG, and policy officers

- at Scotland House. Also building on existing links between Scottish and Dutch stakeholders in the hydrogen space.
- 2. Express our interest in being joined up to the Hydrogen Backbone Initiative and highlight Scotland's green hydrogen export ambitions
- 3. Highlights the many shared areas of ambition and challenges between Drenthe and Scotland and potential areas for collaboration going forward

### Suggested speaking points on the Hydrogen Backbone

- Express our interest in being joined up to the Hydrogen Backbone Initiative and the
  work that the Net Zero Technology Centre has taken forward to assess the
  opportunity for Scotland and the rest of the UK to supply hydrogen to Europe by
  connecting to the Backbone
- Express our interest in being seen and considered as a close partner for the reliable supply of green hydrogen to continental Europe.
- Declare our confidence that hydrogen produced in Scotland will be low-cost and competitive in European markets.
- Scotland's current ambition is for 5GW installed hydrogen production capacity by 2030 and 25GW by 2045. This is supported by our huge potential for renewable energy generation, with a pipeline of over 40GW of renewable energy generation.
- Scotland is incredibly well placed in terms of geographical proximity, political stability and infrastructure connectivity to key hydrogen import locations on the northern European mainland. This proximity should significantly reduce transport costs, cut shipping times and increase reliability of supply, as well as reducing the environmental impact of hydrogen imports – be they by pipeline or shipped.

### Background: Hydrogen Backbone

- The Hydrogen Backbone is a European initiative to build a network that will link up carbon-free hydrogen supply and demand across 25 EU Member States plus Norway, the United Kingdom and Switzerland.
- The Scottish Government have funded the Net Zero Technology Centre's Hydrogen Backbone Link project to assess the potential to connect Scotland to a European Hydrogen Backbone by either repurposing and optimising existing pipeline infrastructure or through the development of new infrastructure.
- The Hydrogen Backbone Link project assessed the opportunity for Scotland and the rest of the UK to supply hydrogen to Europe as part of an extensive hydrogen transport and distribution system, in order to help provide an insight into the backbone requirements for Scotland.
- The project identified several options for offshore pipelines, connecting main energy hubs in North East Scotland to the onshore European backbone via Emden in Germany. Both partial re-use cases and new pipelines were assessed and deemed feasible, with new pipelines providing an opportunity for accelerated deployment.

- Economic analysis is currently underway, with full results of the first phase of the project due to be published in early 2023.
- The Net Zero Technology Centre is further building relationships with EU partners
  to align on a North Sea infrastructure masterplan, and exploring other export
  options including the shipping of LOHC and ammonia, particularly in the short to
  medium term.

## Shared areas of priority / potential areas of collaboration in the hydrogen sector include:

### Just Transition:

• We are committed to co-design of our Just Transitions plans to support our wider work to reach Net Zero, ensuring the transition to renewable energy generates jobs, and fairly benefits Scottish people and communities. Following the Scottish Government's response to the Just Transition Commission, we committed to publishing a Just Transition Plan for energy, which will be integrated with the forthcoming Energy Strategy Refresh and will outline a coordinated vision for Scotland's energy system using a whole-systems approach. We will publish the strategy in consultation form by the end of 2022. It will outline the steps we are taking to decarbonise the energy system, maximise the benefits of this transition and respond to the current challenges of energy security and the cost of living crisis.

### Skills and education:

- developing the right skills to enable the development of a hydrogen economy is key for Scotland. We have an established renewables and oil and gas sector and workforce with over sixty years of transferable experience and skills. But we also need to accelerate the skilling / reskilling of the workforce to ensure we have the right workforce in place to reach our hydrogen ambitions, which is a challenge.
- Scotland has many of the skills required to facilitate the transition to a low carbon economy, across sectors such as energy, engineering, construction, and chemical science; but with the growing complexity within many roles, and rapidly changing technology environment, there is a need for a collaborative and integrated approach to skills alignment and provision.
- At this current stage of development, the skills required for hydrogen are similar to those from the chemical and gas industries. Over the longer term, however, there is expected to be significant potential for a transition of workers from oil and gas industries and, more widely, process engineering and installation and retrofit of existing technology.
- Following commitments underpinned in our draft Hydrogen Action Plan, over the coming year we will work to align the skills system to support skills and jobs across the whole hydrogen value chain. This means taking action to ensure at-risk sectors and regions benefit from a just transition to net zero.
- We will work collaboratively in a Team Scotland approach, bringing together Transport Scotland, Skills Development Scotland, alongside organisations such as the Energy Skills Partnership, to ensure that the skills required for our future hydrogen economy are embedded into our existing system. Working with industry we will ensure that future skills actions are tailored to meet the demand for new specialist skills, promoting opportunities for STEM students, graduates, and

hydrogen engineers, particularly in regional locations where projects are likely to be based.

#### Research and innovation collaboration:

- highlight continuous access to Horizon Europe research programme. Even if the UK Association to Horizon Europe is not completed, the UK Government has outlined domestic plans to enable UK based stakeholders to continue to work on Horizon Europe projects as third country partners.
- Express interest of Scottish partners to work with Northern Netherlands on upcoming hydrogen topics in the Horizon Europe programme, including the upcoming Clean Hydrogen Partnership call early next year.
- Highlight that the Scottish Government is eager to continue to promote international collaboration for deployment projects in the hydrogen sector: mention the Hydrogen Innovation Scheme, which was set up by SG to fund deployment projects in Scotland and which is open to international collaboration. The current call for applications closes at the end of October.

### Regulation:

 Scotland has committed to remain align with the EU in terms of regulatory developments. We are following developments at EU level closely and would welcome exchanges on this

### Supply chain development:

Scotland's ambition is also to export expertise and to contribute to the development
of European supply chains for the hydrogen sector. We have just finalised a study
on our supply chain capabilities for the manufacturing of electrolysers in Scotland.
This might give opportunities for our companies to work together closely.

### Background:

- First collaborations on hydrogen between stakeholders in Northern Netherlands and Scotland date back to 2012 with the HyTrEc project (Intereg North Sea) focusing on developing hydrogen strategies. Aberdeen City Council took part in that project. It was followed by a second project a few years later
- In recent years, collaborations have focused transport applications (hydrogen buses and garbage trucks) and developing hydrogen valleys/ ecosystems. Scotland is home to the first hydrogen valley project in Orkney (BIG HIT), connecting hydrogen production, distribution and use. The Northern Netherlands is home to one of the follow up projects, HEAVENN – all funded through EU research and innovation programmes
- Northern Netherlands expected to become a large-scale producer / user (chemical industry in Delfzjil) and distributor (to the Netherlands and the rest of Europe) of hydrogen

### (ii) Biography

Ongoing: Regional Minister of the Province of Drenthe in the Northern Netherlands

Ongoing: Co-Chair of the CPMR (Conference of Peripheral and Maritime Regions) North Sea Commission

Ongoing: Member of the Committee of the Regions (for the EPP – European People's Party). Member of the Commission for the Environment, Climate Change and Energy (ENVE) and the Commission for Economic Policy (ECON)

From 2011: Chairman of the Christian Union in provincial states.

From 2007: active in Province of Drenthe politics as a committee member

2000-2013: municipal secretary at the municipality of Midden-Drenthe.

In 2013 he made the switch to education and became Chairman of the Executive Board of the Reformed School Group in Groningen.

1991-1995: member of parliament in North Holland for the GPV. He later continued his official career at the province of Noord-Holland as head of legal affairs and head of administrative organisation and strategy.

In addition to his daily work, Tjisse Stelpstra held many administrative positions within the then GPV (central board and chairman of the political training institute) and in education.

After his master's degree in Law (constitutional law), he went to work for the municipality of Langedijk as a lawyer and later as head of legal and administrative affairs.



Tijsse Stelpstra

Dutch Politician

Member of ChristenUnie

Born on 11 June 1961 in
Leeuwarden

"Climate and energy is a very dynamic subject. Four years ago I was completely new to this field, but I am very happy that I can do it for another period of time. Climate change has major consequences for us as humans. That touches me deeply and I want to help do something about it. But the transition to new energy must also be realized with common sense and acceptance. Everyone should be able to come along. So we talk a lot about that with our residents. With the goal in mind, what is important to you and how can you also participate in energy projects yourself? That's what I'm going to do."

### (iii) Note of meeting between Regional Minister and President of North Sea Commission Tjisse Stelpstra [TS] and Martin Johnson [MJ], EU Director, SG, 14 October 2022

- Meeting with the CPMR North Sea Commission at Scotland House Brussels, with the Executive Secretary (who is also regional Minister for Drenthe Tjisse Stelpstra) and the assistant executive secretary Johan Scholte.
- The meeting was on their request and focussed on Hydrogen, sharing best practice on just transition, upcoming opportunities for engagement and finally on Scottish membership of CPMR (and the North Sea Commission in particular).
- Large amount of shared interest and ambition on hydrogen, including on practical delivery of ambitions and managing the balances between existing fossil fuel operations and the transition to renewables.
- MJ strongly advocated for Scotland to be kept in mind in relation to our export potential for renewable hydrogen. TS and MJ noted the ongoing discussions internally within the Commission and with wider EU partners..
- TS stressed the importance of security of supply, working with near neighbours and the value that Scotland brought to these discussions. MJ discussed shared values and the importance of looking to close neighbours (i.e. Scotland) ahead of other potential import options.
- On practicalities, TS explained the work underway at an EU level regarding the 'EU Hydrogen backbone' and also at a national level in the Netherlands, where developments are underway to build a Netherlands Hydrogen backbone connecting North Netherlands, to Limburg, then through to Rotterdam.
- MJ expressed our interest to join up as part of this EU backbone, being seen to as a close partner and on a practical note understanding more about the work underway in the Netherlands.
- Focus in the Netherlands on education and skills. They have created an Erasmus plus programme on Hydrogen and working to create a wider university programme on Hydrogen. MJ discussed our upcoming Energy and Just Transition strategy and shared examples from within Scotland.
- On membership of the North Sea Commission, to date there are four Scottish members: Highlands and Islands, Aberdeenshire, Aberdeen City Council and Fife.
   On next steps TS outlined they are travelling to Scotland for meetings next month.
- Finally, MJ invited them to join the Hydrogen Roundtable (24 October) and also suggested a more detailed bilateral discussion with the Minister ref the Hydrogen backbone.

# ANNEX F: POLITICO MEDIA BRIEFING ON SCOTLAND HYDROGEN OFFER 11:00-11:30

Who	America Hernandez, Energy Correspondent for Politico Europe
What	Informal (untelevised) media interview
Why	Opportunity to present Scotland's hydrogen potential to leading EU media outlet
Where	Scotland House Brussels
When	11.00-11.30, 25 October
Likely themes	<ul> <li>We have highlighted to the following areas of interest and discussion:</li> <li>Position Scotland as a key player in the European hydrogen economy</li> <li>Showcase Scotland's extensive renewables capacity</li> <li>Reinforce our commitment to a Just Transition</li> </ul>
Supporting officials	[redacted under 38(1)(b) exemption]
Attached documents	(i) Biography (ii) Suggested speaking points

### (i) Biography

America Hernandez is an energy reporter covering hydrogen, natural gas, nuclear power and the clean energy transition, notably through the EU's Green Deal package.

## 2020 – present: Energy Policy Correspondent, POLITICO

- covering EU policy on oil, hydrogen and pipelines, natural gas, energy efficiency, finance taxonomy for green investments under the EU Green Deal
- lead on energy/ Brussels Playbook

**2017 - present: Freelance investigative reporter** California/ France

### 2015 - 2017: Staff writer, LA Daily Journal

- LA Daily Journal is California's legal newspaper of record, covering state and federal civil courts
- covered civil proceedings in the Los Angeles Superior Court (litigation, toxic tort, unfair business practices)



**AMERICA HERNANDEZ** 

American Brussels and Lille based journalist.

**Organisation**: POLITICO Europe

•

Politico Europe is the European edition of the

- covered all federal courts in Southern California (white collar crime, The Racketeer Influenced and Corrupt Organization (RICO), First Amendment cases)

2010 - 2013: BA in Political Science, University of Southern California

German-owned news organisation Politico reporting on political affairs of the European Union. Its headquarters are located in Brussels with additional offices in London, Berlin, Warsaw, Paris, and Frankfurt.

Politico Europe has consistently ranked in the ComRes/Burson-Marsteller survey of EU experts as one of the most influential publications on European affairs, above established publications such as the Financial Times, The Economist, BBC and the Wall Street Journal, as well as Twitter and Facebook.

### Website:

https://www.politico.eu/brussels /
https://www.politico.eu/author/america-hernandez

### Position Scotland as a key player in the European hydrogen economy

- Scotland has the resources, the people and the ambition to become a world leader in hydrogen production and our Hydrogen Action Plan sets out how we will work collaboratively with the energy sector to drive progress over the five years to 2026.
- The Action Plan is supported by a £100m capital funding programme to accelerate and maximise the production of renewable, green hydrogen in Scotland.
- This investment is aimed at driving Scotland's hydrogen production capability to meet an ambition of 5GW of renewable and low-carbon hydrogen by 2030 and 25GW by 2045.
- This will put us on the pathway to becoming a leading hydrogen nation by 2045
  in the production of reliable, competitive, sustainable hydrogen and provide the
  potential to secure Scotland's future as a centre of international excellence as
  we establish the innovation, skills and supply chain that will underpin our energy
  transition.

- The finalised Hydrogen Action Plan will be published at the end of this year and will set out the actions to grow the sector and maximise the hydrogen opportunity.
- European Hydrogen Week has provided an excellent opportunity for us to showcase everything Scotland has to offer and to deepen collaboration with our European partners on the key issues which we must collectively address to realise the full potential of hydrogen as part of the green energy transition.

### **Showcase Scotland's extensive renewables capacity**

- Scotland's natural resources, which include strong and consistent wind resource, along with our established expertise in offshore oil and gas, skilled offshore workforce, excellent port structure and strong innovation hub, makes Scotland one of the best places in the world to develop offshore wind and its supply chain.
- Offshore wind is one of the lowest cost forms of electricity generation at scale, offering cheap, green electricity for consumers, with latest projects capable of generating power at below wholesale electricity prices.
- ScotWind is the world's largest commercial round for floating offshore wind and puts Scotland at the forefront of offshore wind development globally. It could now deliver almost 28GW of offshore wind.

### Reinforce our commitment to a Just Transition

- We will shortly publish our refreshed Energy Strategy and Just Transition Plan
  which will outline the steps we are taking to decarbonise Scotland's energy
  system, maximise the benefits of this transition and respond to the current
  challenges of energy security and the cost of living crisis.
- To develop the Energy Strategy and Just Transition Plan, we have taken a range of approaches to build consensus among citizens, communities, business and workers, particularly those who will be most impacted by the energy transition.
- Our first Just Transition Plan for Energy will ensure that just transition principles underpin the changes we need to see in our energy system to support our ambitious emissions targets, delivering a fairer, greener future for everyone.
- The Plan will also consider the impact on communities, including the potential for more community ownership of new initiatives and investments in renewable energy, and the potential for place based initiatives, so that no community or region is left behind in the transition.

# ANNEX G: MEETING WITH ZAKIA KHATTABI, BELGIAN MINISTER FOR CLIMATE AND ENVIRONMENT

[Note: This meeting was cancelled after the provision of briefing to the Minister. Briefing material has been included as per scope of the question but there is no minute in Attachment 3.

Who	Zakia Khattabi, Belgian Minister for of the Climate, the Environment, Sustainable Development and Green Deal
What	Meeting Cabinet Secretary for Net Zero, Energy and Transport
Why	Excellent opportunity for the Scottish Government to strengthen relations with the Belgian federal government on key areas of shared interest (climate, just transition and biodiversity), building on a positive meeting between Ms Khattabi and Mr Robertson & Ms Slater in May (see note in attached documents).  Opportunity to update Minister Khattabi on the Scottish
	Government's work on climate, biodiversity, Under2 and renewable energy and to hear about the Belgian Government's priorities and opportunities for collaboration in these areas.
Where	Belgian Government premises: Finance Tower Kruidtuinlaan 50 - 5th floor 1000 Brussels
When	12:00 – 13:00 25 <sup>th</sup> October 2022
Likely themes	We have highlighted to the following areas of interest to Ms Khattabi's team:  • UNFCCC COP27 (specifically Just Transition, Under2 Coalition and Loss and Damage)  • CBD COP15  • Permitting for offshore wind in-light of Commission proposals in May
Media	Tweet from ScotGovBrussels account
Supporting official	[redacted under 38(1)(b) exemption]
Attached documents	(i) Biography (ii) Speaking points (iii) Note of Mr Robertson and Ms Slater meeting 31 May

# (i) Biography

### **Biography**

2020 - present: Minister of Climate, Environment, Sustainable Development and the Green Deal

In 2020 Zakia Khattabi was appointed Minister of Climate, Environment, Sustainable Development and the Green Deal. The Belgian government, led by PM Alexander De Croo, is composed of the 4 main political groups of Belgium: Ecolo-Groen, PS & S.pa, MR and Open VLD as well as Cd&V.

# 2019 - 2020: Federal member of parliament

She was elected to the federal parliament, where she focused on work of the Justice Committee.

2015 - 2019 : Co-President of the Frenchspeaking Green Party: ECOLO

# 2014 - 2015: Federal member of parliament

Elected as a Member of Parliament, Khattabi devoted her parliamentary work to the Justice, Interior and Equal Opportunities Committees. She was also president of the Inter-Parliamentary Union of Lebanon, Jordan and Syria; and of the Inter-Parliamentary Union of Tunisia.

2009 - 2014: Senator appointed by the parliament of the French Community in Belgium.

Présidente du groupe ECOLO

Vice-Présidente de la Commission Justice

1998 - 2001: Master Social Work at the Université Libre de Bruxelles



# ZAKIA KHATTABI [Zak-eeah Kat-a-bee]

Belgian Politician

Member of Ecolo

Born in 1976 in Brussels to

Moroccan parents

"At the heart of my commitment lies the conviction that for every problem there is a fair and just response, that social justice and environmental justice are inseparable, that their achievement requires the active participation of the greatest number of people and the development of all forms of solidarity".

### (ii) Suggested speaking points:

#### Overall

- Welcome the opportunity to discuss key climate and environment topics.
- Delighted to build on the engagement you had earlier this year (April) with Mr Robertson and Ms Slater.

# Climate / COP27 6-18 November 2022, Egypt

- Building on the momentum of COP26, Scottish Government will continue to demonstrate the role non-party governments play tackling the climate emergency.
- **SG priorities** are Energy Security; Loss and Damage; promoting work of the Under2 coalition and Just Transition. Scottish Government representation at COP27 still being finalised [submission from officials proposing FM during first week, Ms McAllan in the second]. Will Belgium be sending a Minister?
- I understand you attended the pre-COP in Kinshasa (1-5 October) and would be interested in your reflections.

#### **Under 2 Coalition**

- We are now at a turning point for the Coalition which requires us to move rapidly from climate ambition to action in a way that is both fair and just.
- We are using our role as European Co-Chair of the Under2 Coalition to champion increased climate ambition and action from members - starting with calling on all members to sign the updated Under2 MOU and supporting European engagement in the new Net Zero Futures Policy Forum.
- The Under2 Coalition is the largest global network of states, regions, provinces and other subnational governments committed to collectively achieving net zero emissions by 2050 at the latest and individually as soon as possible.
- We welcome Wallonia's membership of the Under2 Coalition and look forward to engaging with them on our shared priorities. I'd be happy to keep you updated on the work of the group as it progresses.

#### **Loss and Damage**

- Our aim is that Governments and civil society adopt a climate justice approach, in particular committing to funding or programming to address Loss & Damage, as showcased by Scotland.
- Scotland calls for action on loss and damage to be in accordance with four key principles: That we respond urgently with finance sources that are separate and additional to finance for mitigation and adaptation, without laying further burdens of indebtedness on those impacted and drawing on the full portfolio of funding options available without relying on a single, inevitably insufficient source. Welcome the strong support of Wallonia on this, who followed Scotland's £2 million funding announcement at COP26 with 1 million euros support.
- Scotland continues to play a significant convening role, most recently bringing together international representatives and practitioners to articulate best practice on addressing L&D at Scotland's conference Addressing Loss and Damage: Practical Action (11 & 12 Oct). The resulting synthesis will be shared at COP27.
- Scotland would welcome further engagement from Belgium regionally and/or nationally on loss and damage and would be glad to share learning from conference and programming will continue to share learning with Wallonia.

#### **Just Transition**

- We are committed to co-design of our Just Transitions plans to support our wider work to reach Net Zero, ensuring the transition to renewable energy generates jobs, and fairly benefits Scottish people and communities.
- Following the Scottish Government's response to the Just Transition Commission, we committed to publishing a Just Transition Plan for energy, which will be integrated with the forthcoming Energy Strategy Refresh and will outline a coordinated vision for Scotland's energy system using a whole-systems approach.
- We engaged over 1,200 people from the oil and gas sector, NGOs and communities in the Energy Strategy Just Transition Plan consultation this summer. We will publish the strategy in consultation form by the end of 2022.
- Launched the Just Transition Fund, with over £20m pledged to selected projects in the NE and Moray by the end 22/23 financial year.
- I know you discussed with Mr Robertson and Ms Slater the possibility of SG attending a Just Transition side event at COP27, if this is still a possibility we'd be delighted to look at whether we can build it into Ministers programmes.

### **COP15** and Biodiversity

- We plan to highlight the successes of the Edinburgh Declaration on the global stage by hosting events at COP27, providing a bridge between COP27 and COP15 and linking the climate and biodiversity agendas.
- The Edinburgh Process will conclude at CoP15 and there will be an opportunity to highlight its success in galvanising support among sub-national bodies.
- And it will provide additional impetus to securing the adoption of the draft renewed Decision on implementing the Plan of Action on Subnational Governments, Cities and Other Local Authorities for Biodiversity [note that Wallonia and Flanders are not signatories but are open to the idea and we are encouraging them to sign].
- Biodiversity Minister, Ms Lorna Slater, will attend CoP15 from 9-16 December. Engagements will focus on the Edinburgh Process with the aim of gathering State Party support for adoption of the Plan of Action for Subnational Governments. Ms Slater will address the High Level Segment of the CoP on behalf of the CBD's Advisory Committee on Subnational Governments.
- The Scottish Government will also announce the publication of our new, draft biodiversity strategy during CoP15.

# **Offshore Wind Permitting**

 We are following the European Commission's RePowerEU proposals [to end reliance on Russian gas], including the proposals to speed up permitting for offshore renewables. We have done a lot of work on the permitting regime in Scotland, it would be interesting to hear about what you are doing in Belgium on this.

#### Close

 As I have outlined a lot of areas of shared ambition and very happy to expand on the areas covered. I'll hand over to you now.

# (iii) Note of meeting between Cabinet Secretary Robertson [AR] Minister Slater [LS] and Zakia Khattabi [ZK], Belgian Federal Environment Minister, 31 May 2022

- AR, LS and ZK agreed on the key importance of a non-silo approach when it comes to climate governance, and exchanging best practices on this
- ZK recognised and welcomed a more systematic approach on the Green Deal, where it is vital to take a specific approach where all policy areas are mobilised and implicated. LS agreed it is difficult to make cross-policy changes, especially with the importance of lobbies.
- AR set out some of the challenges Scotland is facing on devolution, where disruptions to Scottish alignment and legislation can be felt. Scotland remains progressive and ambitious. AR mentioned the SG prospectus papers.
- LS highlighted the fact that Scotland has a lot to learn from EU partners on the **circular economy**, starting with increased alignment with the EU
- ZK was interested in whether Scotland is a member of INEA and Nairobi declaration.
- ZK asked how the concept of the wellbeing economy was created in Scotland. LS talked about wellbeing indicators, measure economy, donut economy diagram, and how it is important to look at prosperity, instead of growth. Ministers agreed it is key to consider many indicators in this context, LS interested in knowing what indicators are used in Belgium. ZK highlighted that it is useful to have a mix of approaches, shared frameworks and hold meetings amongst countries that could have experts sharing their insight. A virtuous race to the top.
- ZK stated that Belgium have a 50% governance approach on climate. The aim is to be climate neutral and climate resilient by 2050
- ZK is currently working on a new initiative around risk analysis on climate, with the aim to help decision makers and industries to make the right decisions for the future. Wallonia suffered major floods last year which has led to a change of narrative for citizens, who now consider climate crisis as a national security issue. The body ZK aims to create, an institution for resilience, would report at the national level. Ministers agreed there is a need to collectively discuss risk analysis.
- ZK gave information about a special high council on just transition that was launched on Green Week. LS said Scotland would be interested to hear a bit more on this, and specified that the current focus in Scotland is more on jobs and skills, and supporting those affected by policy changes. AR added that Scotland has been using citizens' assemblies to involve more people in processes.
- ZK suggested to get in touch with Belgian Federal Minister Tinne Van Der Straeten for a meeting on the energy portfolio. She also added that she was going to host an event during COP27, and encouraged the Scottish Government to attend.
- Ministers agreed they must follow up on a set of issues, including climate indicators, risk analysis, just transition, resilience and the wellbeing economy.

#### ANNEX H: BELGIUM COUNTRY PROFILE

**Head of State:** King Philippe (Since July 2013)

Prime Minister: Alexander De Croo (Since October 2020)

Foreign Minister – Hadja Lahbib (Since July 2022)

**Ambassador to UK** – Bruno van der Pluijm (Since May 2020) **UK Bilateral Ambassador** – Martin Shearman (Since June 2019)

Minister-President of the Government of Flanders - Jan Jambon (since August

2022)

Minister-President of the Government of Wallonia – Elio Di Rupo (Since 2019)

Minister-President of the Government of Brussels Capital – Rudi Vervoort (Since May 2013)

#### Key links

- Scottish exports to Belgium were estimated to be worth £1,250 million in 2018, making it Scotland's 5<sup>th</sup> largest export destination.
- Belgium is one of Scotland's priority markets, as per the Export Growth Plan: A
  Trading Nation (1 May 2019). Existing export strengths include Chemical
  Sciences, Engineering and Advanced Manufacturing, Financial & Business
  Services, Technology, Digital and Media and Food & Drink.
- 2000 Belgian citizens resident in Scotland (ONS 2020).
- VisitScotland and VisitFlanders have an MoU dating to 2015.
- Flanders Investment and Trade plan to re-open their Edinburgh office by Spring 2023.
- SG has had a presence in Brussels for 20+ years and continues to do so through Scotland House Brussels.

### **Hot Topics**

#### UK-Belgium Joint Declaration on Bilateral Cooperation

- On 30 November 2021 the UK and Belgium signed a Joint Declaration identifying areas to improve co-operation, establishing working groups and annual Foreign Minister bilateral meetings to review progress.
- The themes of the declaration are:
  - Shared Prosperity strengthening commercial ties, working together on border processes, encouraging close working in maritime sectors stating parties "welcome the recent mission of the ports of Antwerp and Zeebrugge to Edinburgh" and UKG's COP26 Clydebank Declaration on green shipping.
  - o **Green Transition** working towards net zero with a focus on electricity interconnection and sharing expertise on wind power and hydrogen.
  - o **Health and Biopharma** combatting Covid and encouraging investments in a leading industry in the UK and Belgium.
  - Security cyber security, law enforcement, information sharing and efforts to prevent irregular migration to the UK.
- The final paragraph of the declaration states that both parties "encourage further exchange between stakeholders in our countries to contribute to the full realisation of the potential the relationship between our countries holds."

#### ANNEX I - CORE BACKGROUND BRIEFING ON HYDROGEN

### Key messages

- Scotland's extensive renewable resources mean we are well-placed to ensure long-term security of supply of green hydrogen in Europe.
- Scotland has the resources, the people and the ambition to become a world leader in hydrogen production and our Hydrogen Action Plan sets out how we will work collaboratively with the energy sector to drive progress over the five years to 2026.
- We are committed to working in partnership with industry, regions and nations to develop tangible projects along the whole hydrogen value chain that will enable large scale hydrogen production with export routes to Europe.
- We are also working with our international partners to share expertise and develop the sector more quickly.
- The Scottish Government has led the way in supporting world-leading hydrogen demonstration projects and is now committing to invest £100 million in the hydrogen sector in Scotland over the next five years.
- This investment is aimed at driving Scotland's hydrogen production capability to meet an ambition of 5GW of renewable and low-carbon hydrogen by 2030 and 25GW by 2045.

#### Scotland as part of a co-ordinated North Sea approach

- We are keen to develop further renewable energy and hydrogen-specific partnerships to explore the development of the transnational value chains needed for the production of large-scale hydrogen with potential export routes from Scottish ports into northern Europe.
- Scotland is 'just over the water' from Northern Europe just 700km away from the Netherlands and 750km from the North German coast.
- We are currently assessing the most cost-effective options for transportation and export of hydrogen from Scotland to Europe. It is likely that a number of different options – such as gaseous hydrogen pipelines, marine vessel transportation of liquid hydrogen, green ammonia and methanol, and LOHC could all be used at different scales depending on end-purposes and off-takers.
- By working together on a coordinated North Sea approach to hydrogen production, supply and storage, we can ensure that Europe is world-leading in terms of low-cost, secure green hydrogen production.

- We have already developed a number of renewable energy and hydrogenspecific partnerships to explore the development of the transnational value chains needed for the production and export of hydrogen at scale.
- This includes Memorandums of Understanding with Hamburg and North Rhine-Westphalia, a Letter of Intent signed with Bavaria, the Scot2Ger project and the RSE Scotland-Germany Hydrogen Research Scheme funded by the Scottish Government.
- A floating wind and green hydrogen Franco-Scottish research and development collaboration was completed in 2021 to review the opportunities for Scottish and French organisations to work together to deliver collaborative innovation in floating wind and hydrogen.
- In June 2022, we launched a new £10 million Hydrogen Innovation Scheme with a focus on innovation in renewable hydrogen production, storage and distribution technology, as part of our commitment to making research and development funding available for international collaboration in the hydrogen space.
- Scotland will also be co-leading the hydrogen taskforce as part of the Net Zero Future Forum. The taskforce will facilitate dialogue on opportunities and barriers around the trade of hydrogen, supply chain mapping and development, and issues of public perceptions of the hydrogen economy among other issues.
- These agreements and projects offer an opportunity to help us learn from one another, to encourage business and research collaboration, and to ensure that we work together to develop the new hydrogen economy more quickly.

# **European Hydrogen Backbone**

- The Hydrogen Backbone is a European initiative to build a network that will link up carbon-free hydrogen supply and demand across 25 EU Member States plus Norway, the United Kingdom and Switzerland.
- The Scottish Government have funded the Net Zero Technology Centre's
  Hydrogen Backbone Link project to assess the potential to connect Scotland to a
  European Hydrogen Backbone by either repurposing and optimising existing
  pipeline infrastructure or through the development of new infrastructure.
- The Hydrogen Backbone Link project assessed the opportunity for Scotland and the rest of the UK to supply hydrogen to Europe as part of an extensive hydrogen transport and distribution system, in order to help provide an insight into the backbone requirements for Scotland.
- The project identified several options for pipeline routing offshore, connecting main energy hubs in North East Scotland to the onshore European backbone via Emden in Germany. Both partial re-use cases and new pipelines were assessed and deemed feasible, with new pipelines providing an opportunity for accelerated deployment.

- The Hydrogen Backbone Link project is also working closely with National Grid on alignment with their 'Project Union' – an onshore UK hydrogen backbone.
   This will allow for UK market distribution of Scottish Hydrogen via St Fergus and Aberdeen.
- The Net Zero Technology Centre is [24 words redacted under 33(1)(b) exemption] and exploring other export options including the shipping of LOHC and ammonia, particularly in the short to medium term.
- Online maps illustrating the European Hydrogen Backbone are regularly reviewed and have recently been updated to reflect changes to hydrogen infrastructure plans in Spain, Slovakia, Belgium and Hungary. To date no direct pipeline between Scotland and Europe has been reference on Hydrogen Backbone maps, a development that we would like to see included.

# **Net Zero Futures Policy Forum Hydrogen Taskforce**

- As part of the Net Zero Futures Policy Forum an international partnership of governments committed to addressing the practical challenges of achieving net zero emissions and accelerating this transition - Scotland is co-leading a green hydrogen taskforce with South Australia.
- The taskforce will focus on what actions sub-national governments can take to address market access barriers for low carbon hydrogen and develop a shared understanding of the technological barriers and evidence gaps around the export of hydrogen such as hydrogen carriers, port infrastructure, and storage solutions for the transport of hydrogen.
- We would welcome all prospective members with an interest in green hydrogen not only Under2 Coalition members and would be happy to provide Drenthe
  Province with further details on practical arrangements for joining the taskforce if
  interested.

# Recent European hydrogen developments

- The REPowerEU plan, published May 2022, seeks to rapidly reduce dependence on Russian fossil fuels by fast forwarding the clean transition and joining forces to achieve a more resilient energy system and a true Energy Union.
- Scotland is closely watching Europe's response to the energy crisis, including the European Hydrogen Bank announced by Ursula von der Leyen earlier this month.
- While we await more details on how the Bank will operate, 3 billion euros of investment could be a game-changer in the pace of which Europe is able to scale up development of the hydrogen sector.
- If the European Union is to meet its ambition to import 10 million tonnes of renewable hydrogen by 2030, it will be important to ensure that future hydrogen

exporters – many of whom are Third Countries – can access these future funding streams.

# Certification and regulation

- Governments and industry must work together to ensure existing regulations are not an unnecessary barrier to investment.
- Trade will benefit from common international standards for the safety of transporting and storing large volumes of hydrogen, as well as for the certification of hydrogen as green.
- We are engaging with the UK Government on the development of a UK certification scheme and the creation of an enabling regulatory framework to support the scale up of the hydrogen sector.
- Crucially, we are focusing on ensuring that regulations and certification schemes developed in the UK are aligned with the EU, providing a clear and cohesive methodology for export to promote the flow of trade between the UK and Europe and reduce market access barriers

To note: On 14 September, the European Parliament backed an amendment to the Renewable Energy Directive II (RED II), scrapping additionality requirements for green hydrogen at EU level. The Delegated Act would have imposed EU-wide additionality regulations — requiring all renewable hydrogen producers to source electricity from dedicated green-energy projects, with grid-sourced electricity allowed only when it could be offset with dedicated supply within the hour. Instead, renewable H2 producers will now be allowed to source electricity from the grid, provided they can verify it as green electricity by securing power-purchase agreements (PPA) from renewables installations for the equivalent amount.

#### SG position on Horizon Europe

- Scotland's world class university research, and its key outputs of new knowledge and insights, are fundamental to green economic recovery and growth.
- The EU remains a top research collaborator for Scotland with numerous strategic partnerships developed through European Networks and the Horizon programmes.
- Research collaboration with EU countries brings the most research impact for Scotland. (Scottish Science Advisory Council report 2019)
- European researchers bring high quality skills and are highly valued within the Scottish research base we will always welcome them in Scotland.
- The Scottish Government believe maximising participation in Horizon Europe is the best outcome for Scotland.

- Scottish organisations have secured around 11% of the overall UK winnings under the Horizon 2020 programme.
- Scotland continues to share similar values with the EU as demonstrated by our Programme for Government, which emphasises the importance of a just transition to net zero, health & wellbeing and tackling inequalities.
- The UN's Sustainable Development Goals underpins our National Performance Framework, complimenting the European Commission's Missions under Horizon Europe.
- In the past 10 years, almost one third of Scotland's research was directly related to our National Performance Framework, and aligned with the UN Sustainable Development Goals.
- The Scottish Government supported over 200 projects between Scotland and Europe through our £3 million Saltire Research Awards last year, providing opportunities for inward and outward mobility and tackling key global challenges from across all research disciplines to maintain and strengthen our relationships all over Europe.
- We believe research has no boundaries and we can only solve the world's biggest problems if we work together.

# [IF ASKED] Horizon Europe Consultation

- We are aware of the dispute raised by the UK to initiate formal consultations with the EU on participation in Union programmes, including Horizon Europe.
- We urge the UK Government to work together with the European Commission and Devolved Governments to find a mutually beneficial solution for our research and innovation communities.

#### ANNEX J: OFFSHORE WIND

#### Top Lines

- Our Offshore Wind Policy Statement sets out the Scottish Government's ambitions for offshore wind in Scotland, including an ambition to achieve 8-11 GW of offshore wind in Scotland by 2030. This recognises that deployment must increase significantly if we are to meet our climate change targets.
- Offshore wind is one of the lowest cost forms of electricity generation at scale, offering cheap, green electricity for consumers, with latest projects capable of generating power at below wholesale electricity prices.
- Scottish Ministers have made clear, time and again, that they will use every lever at their disposal to maximise economic returns for the offshore wind sector here in Scotland.

#### **SCOTWIND**

- We welcome the announcement of the ScotWind clearing results on 22
   August, with three projects successful in securing a leasing option for site NE1. ScotWind could now deliver almost 28GW of offshore wind across 20 projects.
- This is the first devolved leasing round for offshore wind development in Scottish Waters, and the first leasing round in Scotland in a decade. ScotWind is the world's largest commercial round for floating offshore wind and puts Scotland at the forefront of offshore wind development globally.
- Together with the option fees from the Clearing round, ScotWind will deliver over £750m in revenues to the public purse for these initial awards alone.
   Scottish Ministers are considering how the ScotWind revenues should be invested to maximise the benefits for the people of Scotland.
- In addition, ScotWind will deliver several billion pounds more in rental revenues when projects become operational, which will be invested for the benefit of the people of Scotland.
- ScotWind promises to be transformational in delivering wider economic supply chain benefits to help power Scotland's green recovery in communities across Scotland. We welcome the commitment of developers to invest an average projection of £1.4 bn in Scotland per project, which equates to more than £28bn across the 20 ScotWind offshore wind projects.

# INNOVATION AND TARGETED OIL AND GAS DECARBONISATION

- The Innovation and Targeted Oil and Gas Decarbonisation (INTOG) leasing round, currently in progress, targets the delivery of 4.5GW of new offshore wind projects, with 500MW to test new technology or solutions in Scottish waters, and 4GW for projects that will specifically deliver green energy to oil and gas installations.
- By replacing traditional energy sources with offshore wind generation these plans will support the decarbonisation of oil and gas infrastructure, facilitate decommissioning and grow our offshore wind sector, while also supporting the delivery of the North Sea Transition Deal.

#### SUPPLY CHAIN

- As part of the ScotWind bidding round, applicants were required to submit a Supply Chain Development Statement (SCDS) to Crown Estate Scotland, outlining the supply chain activity they commit to undertaking within Scotland, the UK and overseas.
- These commitments amount to billions of pounds of investment to the Scottish supply chain and economy - initial projections show an average spend of £1.4bn in Scotland across each of the 20 ScotWind projects.
- These statements are not only an indication of what Scotland can achieve, they are our expectation of what the winners will deliver for Scotland.
- We are working to realise our ambitions for the floating wind supply chain in Scotland through The Scottish Offshore Wind Energy Council. Our recently announced Collaborative Framework will help forge effective partnerships to deliver on supply chain potential.
- Industry, development agencies, and SG are working together to develop a Strategic Investment Model (SIM) which will facilitate delivery of the commitments agreed in the Collaborative Framework Charter in line with the SIA recommendations.
- Co-designing this model is crucial to creating a sustainable and competitive supply chain in Scotland with the capacity and capability to support delivery of offshore wind projects in line with project business cases and SCDS ambitions.

#### SCOTWIND CLEARING

# We welcome the announcement of the ScotWind clearing results, with three projects successful in securing a leasing option for site NE1. ScotWind could now deliver almost 28GW of offshore wind.

- The results of the Clearing round add a further 2.8GW of generating capacity to Scotland's huge offshore wind pipeline.
- In the words of Colin Palmer, Director of Marine at Crown Estate Scotland [QUOTE]: "This is a fantastic result for Shetland and for Scotland. These projects have significant potential to really boost Scotland's progress towards its net zero targets, including in relation to the opportunity around green hygrogen"
- All three projects successful in the Clearing round intend to use floating technology. This result cements ScotWind as the world's largest commercial round for floating offshore wind and strengthens Scotland's position at the forefront of offshore wind development globally.
- We recognise the challenges that ScotWind's poses to the key public sector delivery bodies. We will increase resources to ensure those parts of Government responsible for delivery can effectively meet those challenges.

# The conclusion of the ScotWind offshore wind leasing auction and the clearing process is a huge vote of confidence in Scotland.

• The three projects that received lease awards on the 22 August, will contribute to extra £56m to the initial £700m from the ScotWind projects that received awards in January.

- ScotWind will provide several billion pounds more in rental revenues once projects become operational, to be invested for the benefit of the people of Scotland.
- ScotWind will bring benefits for all of Scotland but it will be especially
  important in the north east, and a crucial part in the transition from being the
  oil and gas capital of Europe, to being one of the net zero capitals of Europe.

# I welcome the commitment from developers to invest more than £28 billion across the 20 ScotWind projects into the Scottish economy.

- These investments will accelerate Scotland's just transition, providing thousands of skilled jobs to workers in the oil and gas sector.
- We recognise that we must also ensure that Scotland's indigenous supply chain benefits from the floating technology potential in Scotland through strategic and collaborative work. Our recently announced Collaborative Framework will help forge these effective partnerships to deliver on the supply chain potential from ScotWind.
- The Scottish Government sees offshore wind and the hydrogen production which we hope will be enabled by offshore wind as one of the most important economic and environmental opportunities we have. It can reduce our carbon emissions, improve our energy security, and create tens of thousands of high quality jobs.

#### **ANNEX K: UNDER 2 COALITION**

#### Top lines

- Scotland has secured a second term as European co-chair of the Under2 Coalition (2022-2024).
- Our aims as co-Chair are to:
  - Increase the ambition and delivery towards net zero, a just transition, and increased resilience;
  - ➤ See greater support for, and recognition of, the role and influence of non-Party governments, states and regions in responding to the climate crisis, at both a global and national level;
  - Increase the influence of the Under2 Coalition and its membership.
- The Coalition is made up of 260 governments representing over 1.75 billion people and 50% of the global economy.
- For the newly elected 2022-2024 term, the regional Co-Chairs are:
  - Governor Gavin Newsom of California, (North America)
  - Governor Rodrigo Garcia of São Paulo, Brazil (Latin America)
  - > Premier Nomusa Dube-Ncube of KwaZulu Natal, South Africa (Africa)
  - Governor Yang Seung-jo of Chungnam Province (Asia-Pacific).
- Under2 Coalition states and regions have on average reduced their emissions by 16% from their respective base years. This happened at the same time as global emissions rising by approximately 42% (1990-2015). While all eyes are on national governments, state and regional governments are increasingly stepping in and stepping up - showing leadership in the face of adversity.

# **Under2 Coalition projects**

- Through our membership of the Under2 Coalition, the Scottish Government contributes to a number of projects that bring together member governments in line with increasing collective climate action.
- Future Fund: We fund [£30K in 20/21 and £50K in 21/22], activities and programmes to build knowledge and capacity of U2 members, including through peer-to-peer learning and attendance at international climate events.
- ➤ In 2021 the Scottish Government hosted a secondment opportunity for interested states and regions on themes such as adaptation, energy, green finance and just transition. 18 governments participated in the secondment.
- ➤ Net Zero Policy Forum: The Net Zero Policy Forum launched in Summer 2022. It currently consists of Australian states and Scotland but as the new co-chair (alongside New South Wales) we aim to broaden out the membership to be more inclusive. The Forum aims to enable collaboration to address priority policy challenges on reaching net zero. Three initial policy taskforces have been set up; hydrogen, carbon sequestration and transport. Scotland is co-leading the hydrogen taskforce along with South Australia.
- ➤ Just Transition Taskforce: we established the Just Transition Taskforce, to facilitate knowledge-sharing between members of the Coalition. The first activity of the Taskforce was a series of Working Groups with Under 2 Coalition members to share Scotland's just transition experience so far and discuss common challenges and areas for international collaboration.
- > ZEV Community: The Zero Emissions Vehicle Community brings together governments to share and learn about zero emission vehicle (ZEV) initiatives.

#### ANNEX L: ENERGY STRATEGY AND JUST TRANSITION

# The Scottish Government committed to publishing a refresh of the 2017 Energy Strategy in the Programme for Government and Bute House Agreement.

Following the Scottish Government's response to the Just Transition
Commission, we committed to publishing a Just Transition Plan for energy ,which
will be integrated with the forthcoming Energy Strategy Refresh and will outline a
coordinated vision for Scotland's energy system using a whole-systems
approach.

# To develop the Energy Strategy and Just Transition Plan, we have taken a range of approaches to build agreement among citizens, communities, business and workers.

- The variety of approaches reflects our need to hear from a wide range of different groups. This is because different groups have different levels of background knowledge and different opportunities to get involved.
- We have focused on groups and people most likely to be impacted by the energy transition, as well as our core energy partners, including the Scottish Energy Advisory Board.
- It will bring together all policy areas across the sectors, including heat and transport, to set out a cohesive roadmap that we will be consulting on to determine the milestones and actions needed to reach net zero in a just way
- We will publish the strategy in consultation form by the end of 2022. It will outline
  the steps we are taking to decarbonise the energy system, maximise the benefits
  of this transition and respond to the current challenges of energy security and the
  cost of living crisis.

# How are we engaging with those most likely to be impacted by the energy transition?

- Our first Just Transition Plan for Energy will ensure that just transition principles underpin the changes we need to see in our energy system to support our ambitious emissions targets, delivering a fairer, greener future for everyone.
- Our approach to engagement follows our National Just Transition Planning
  Framework and is grounded in our Net Zero Nation: public engagement strategy.
  Both emphasise the importance of openness and co-design, while taking an
  evidence-based and adaptable, iterative approach.
- Just Transition Planning aims to:
  - Identify and mitigate economic or social injustice, which may be exacerbated by climate action (and / or opportunities that should be exploited)
  - Provide certainty for those involved in the transition (be they businesses, investors, consumers or communities)
  - Ensure everyone understands the active role that they can play in the transition
  - Our engagement is intended to arrive at practical actions that will support National Just Transition Outcomes as we deliver our energy transition.

# ANNEX M: BIODIVERSITY - CONVENTION ON BIOLOGICAL DIVERSITY (CBD) COP15

### Top Line(s)

- Nature is in decline across the globe due to a range of factors including land and sea use; invasive species; exploitation; and pollution.
- Scotland has seen a dramatic decline in its biodiversity. We are working hard to reverse that recognising that we – and other countries with an industrial past – have disproportionately contributed to climate change, and that we must do more to help tackle the twin crises of nature loss and climate change,
- Scotland's high level strategic goal is to halt the ongoing loss of nature by 2030 and make significant progress to restoring nature by 2045.
- Scottish Ministers are keen to ensure that there is no dilution of ambition of the post-2020 global biodiversity framework.
- With a just transition at the heart of our nature recovery ambition, we are ramping up nature based solutions that create a Greener, Fairer and more prosperous nation for all.
- The twin crises of climate change and nature loss are intertwined and must be tackled together. We need nature to mitigate the effects of climate change and nature needs us to manage climate change to avoid its collapse.
- We welcome UKG support of the Edinburgh Process for biodiversity and the associated Plan of Action for Subnational Governments.

#### Lines to take

- As well as taking action domestically, we are playing a leading global role, working with partners to address the nature crisis.
- Through our leadership of the Edinburgh Process for subnational government, cities and local authorities we are working to maximise the delivery of the post-2020 global biodiversity framework at all levels of government in order to meet global ambition.
- Scottish Ministers have set out key priorities for nature including a commitment to protect 30% of our land by 2030, and to enhance marine environmental protection.
- Our new Scottish Biodiversity Strategy to be finalised in 2023 takes account of these commitments, which align to the post-2020 global biodiversity framework.
- We are committed to working with stakeholders to ensure a 'whole of government' and 'whole of society' approach to addressing local and national priorities for nature, and that also contributes to global goals.

#### **Key Facts**

- The Edinburgh Process has gathered the views of over 400 Subnational and Local governments for the CBD, on the development of the post-2020 global biodiversity framework to be agreed at CoP15, 25 April-8 May 2022.
- The Edinburgh Declaration has been signed by over 250 governments and local authorities. It:
- sets out the readiness and willingness of governments at all levels to take
  positive and transformative action for biodiversity over the next ten years in
  implementing the post-2020 global biodiversity framework and targets set at
  CoP15.

- asks the Convention to adopt a dedicated decision at CoP15 on a new Plan of Action on Subnational Governments, Cities and Other Local Authorities for Biodiversity (2021-2030) – stepping up recognition of the role for this constituency in the coming decade.
- The UN CBD are to agree on Goals, Milestones and Action Targets at CoP15 the current drafts are set out in the Annex

### **Background**

- The UN CBD CoP15 will be held in Montreal under the Presidency of the Government of China from 7-18 December to negotiate a new global biodiversity framework.
- Biodiversity Minister, Ms Lorna Slater, will attend CoP15 from 9-16 December.
   Engagements will focus on the Edinburgh Process with the aim of gathering State Party support for adoption of the Plan of Action for Subnational Governments.
- Ms Slater will address the High Level Segment of the CoP on behalf of the CBD's Advisory Committee on Subnational Governments.
- The Scottish Government will also announce the publication of our new, draft biodiversity strategy during CoP15.
- Climate change is amplifying other causes of nature loss, altering the weather, changing habitats and affecting the food chain for many species. All the evidence shows that a warming climate is bad for nature. And a collapse in nature will collapse our climate.
- Scotland is committed to working with other global partners to address the nature crisis. Through our leadership of the Edinburgh Process we are working to build commitment among devolved bodies and administrations to deliver the goals of CoP15.

# 2030 Action Targets

The actions set out in each target need to be initiated immediately and completed by 2030. Together, the results will enable achievement of the 2030 milestones and of the outcome-oriented goals for 2050. Actions to reach these targets should be implemented consistently and in harmony with the Convention on Biological Diversity and its Protocols and other relevant international obligations, taking into account national socioeconomic conditions.

#### ANNEX N: REPOWEREU

#### **EUROPEAN COMMISSION REPOWER EU PACKAGE**

I. Overview
II. Hydrogen
III. The 4 Pillars
IV. North Sea
V. Versailles Declaration

# I. Overview Purpose

**1.** To provide a high level summary, and an initial view on implications, of the European Commission's REPowerEU package published 18 May 2022.

### **Summary**

- 2. REPowerEU is the European Commission's strategic energy plan for how it will end dependence on Russian Fossil Fuels, one third by the end of this year and entirely before the end of the decade it also mobilises close to EUR 300 billion to support the transition. Commission President Ursula Von der Leyen stated it will "help [the EU] to save more energy, to accelerate the phasing out of fossil fuels, and kick-start investments into renewables on a new scale." It builds on a March communication of the same title and associated Versailles Leaders Declaration (see Annex D) which gave political endorsement and direction to develop the measures further. The plan will be discussed by EU leaders at the Extraordinary Council this week 30-31st May.
- 3. The ambitious plan is based on four pillars: saving energy; substituting Russian gas with other fossil fuels; boosting green energy; and financing new LNG terminals (further detail on the four pillars at annex B). As well as the main REPowerEU paper, the package has a range of draft legislation and additional publications including an External Energy Engagement Strategy. Of particular relevance to Scotland in this package is the increased ambition on renewables, in particular on the enhanced role for hydrogen imports.

# **Climate Ambition**

4. Whilst REPowerEU does not modify the headline targets of the EU's climate contribution - achieving at least 55% net greenhouse gas emissions by 2030 and climate neutrality by 2050; it does propose a legal amendment to raise target for energy efficiency and renewable energy to 13% and 45% respectively. Other headlines include proposals for a solar rooftop obligation for commercial and public buildings as of 2025 and for new residential buildings as of 2029.

### Implications for Scotland

- 5. [54 words redacted under 32(1)(a) exemption].
- 6. [48 words redacted under 32(1)(a) exemption] Looking ahead we will want to consider how to best position and promote Scotland as having significant contribution to make for example building on messaging to date on renewables and hydrogen. We propose to host a Hydrogen export Round-table during Sustainable Energy Week w/c 24th September, as well as hosting a Just Transition & Scot Wind event in Autumn to showcase Scotland. We suggest a role for Cabinet Secretary Mr Matheson in both events, as well as wider Brussels visit program in particular to focus on Hydrogen. Further advice will follow on this in due course.

# **Next Steps at EU level**

7. European (leaders) Council consider on 30 and 31 May, leaked draft conclusions call for prompt use of the EU Purchase Platform, the accelerated deployment of renewables and progress on the dedicated funding instruments and for preparedness ahead of possible further disruptions to gas supply. Consideration of relevant Fit for 55 files will continue in the Parliament and Council structures.

# II. Hydrogen

Hydrogen forms a significant part of REPowerEU and the EU's external energy engagement strategy published the same day - 'in view of moving away from the use of Russian fossil fuel imports in the EU, the EU needs to accelerate ramping up both demand and supply of renewable hydrogen.

#### REPowerEU

Within REPowerEU there are new Hydrogen targets for production and import - as well as a number of new initiatives (and flexibilities) at both EU and Member State level. There is also recognition that the stepping up of renewable hydrogen ambition requires additional investment - total investment costs are expected to be in the range of € 335-471 billion, with € 200-300 billion needed for additional renewable electricity production. On investment the Commission will double the funding for the Innovation Fund's 2022 (this autumn) to approximately 3 billion EUR. The Innovation Fund will also be able to support hydrogen uptake by industry through an EU-wide scheme for (Carbon) Contracts for Difference.

REPowerEU includes a proposal to raise the 2030 target for the share of renewables in final energy consumption from 40% to 45% and sets targets of 10 million tonnes of domestic renewable hydrogen production and 10 million tonnes of renewable hydrogen imports by 2030. The production of renewable and fossil-free hydrogen is listed among the REPowerEU objectives of the Commission proposal to amend the Recovery and Resilience Facility (RRF) Regulation. This allows Member States to add further reforms and investments in their plans – to boost uptake of renewable or fossil free hydrogen in their economy.

On the detail, there are two elements specifically targeted to promote the deployment of renewable energy. First, the package on permitting of renewable energy projects consists of a targeted amendment of the Renewable Energy Directive to speed up permitting procedures while minimising potential risks to the environment by identifying 'go to' areas that are particularly suitable for renewables. This should accelerate 'project pipeline', for which a complete assessment will be finalised by the summer, and by topping up of Horizon Europe investments in the Hydrogen Joint Undertaking (€200 million) to double the number of Hydrogen Valleys (Today there are 23 hydrogen valleys across Europe in 10 Member States). The development of so called Hydrogen Valleys bring together – in a limited geographical area - all the elements of renewable hydrogen production, storage and end-use into an integrated ecosystem. The Commission is also publishing guidance to Member States on renewable energy and power purchase agreements (PPAs) to support such electrification as well as hydrogen uptake (to follow). The Commission will also introduce carbon contracts for difference under the Innovation Fund to support a full switch of the existing hydrogen production in industrial processes from natural gas to renewables (and the transition to hydrogen-based production processes in new industrial sectors such as steelmaking). In parallel, the Commission proposes development of dedicated hydrogen infrastructure - working towards a European Hydrogen Backbone (as per graphic below), including electrolysers for producing hydrogen, EU-internal pipelines and storage. Signposted is the need to increase shipping transport capacity for hydrogen making the links to available funding, without specific details at this stage.

In terms of next steps, REPowerEU sets out the high level commitments, with further technical work to follow. The Commission has committed to finalising the regulatory framework for hydrogen and is publishing for public feedback two new draft legal acts to define and boost the production and market development of renewable hydrogen within Europe - further reporting on both of these to follow. The Commission has also committed to developing regular progress reports, starting in 2025, on the production, transport and uptake of renewable hydrogen in industry and transport.

#### External energy engagement strategy

The EU external energy engagement strategy sets out the importance of hydrogen imports to the EU. It suggest that geographically, the focus should be on the 'EU neighbourhood while establishing partnerships with other potential suppliers in the Southern Neighbourhood, Sub-Saharan Africa, the Middle-East, the Gulf, Chile, but also the US and Australia'. Based on Comission studies, they indicate that until 2030 the 'imports of hydrogen to the EU are most cost efficient via pipelines from the neighbourhood and in the form of ammonia through ships over longer distances'.

Specifically, the strategy sets out three ways in which they will prepare the EU for renewable hydrogen trade: 1) hydrogen partnerships, 2) EU regulatory power and 3) a global hydrogen facility.

1. Hydrogen imports will be facilitated by a new dedicated work stream under the EU Energy Platform which will operationalise the European Global Hydrogen Facility and support Green hydrogen partnerships. The Commission stated its intention to support the development of three major hydrogen import corridors via the Mediterranean, the North Sea area and, as soon as conditions allow, with Ukraine. To minimise risks that investments in renewable energy may be

- diverted from the energy transition in partner countries, strict standards will be imposed to ensure that renewable hydrogen imports to the EU can only be produced from additional renewable energy sources.
- 2. On regulation, the EU Energy Platform will also perform international outreach, with the aim of concluding long term cooperation frameworks with 'trusted partners via binding or non-binding agreements that support the purchasing of gas and hydrogen and clean energy project development'.
- 3. The Global European Hydrogen Facility will be established in cooperation with the Member States, to deliver a framework providing a level-playing field between EU production and third country imports, and to ensure that these partnerships are not set up in isolation. It should set the regulatory framework and incentivise European and global renewable hydrogen production. Graphic on the EU Energy Platform below.



#### III. The 4 Pillars

- Energy Efficiency: The Commission will work with a range of partners to 'identify and promote' short-term energy saving measures which it says can reduce oil and gas demand by 5%. Mid-long term it proposes an increased EU energy efficiency target of 13% by 2030, inviting the Parliament and Member States to make improvements to the Fit for 55 package (currently in train) such as:
  - Extend buildings Minimum Energy Performance Standards;
  - o Strengthen national energy requirements of new buildings;
  - o Tighten national heating system requirements for existing buildings; and
  - Introduce national bans for boilers based on fossil fuels in existing and new buildings.
- <u>Diversifying imports</u>: An International Energy Strategy sets out the Commission's intention "to build long-term partnerships that are mutually beneficial." A new EU Energy Platform is proposed "to pool demand, coordinate infrastructure use, negotiate with the international partners and prepare for joint gas and hydrogen purchases." Renewable Hydrogen is a key element of the strategy, as is 'Leading and accelerating the global green and just energy transition" where examples include implementing the Joint Energy Transition Partnership with South Africa and exploring similar partnerships ahead of COP27.

- <u>Diversifying away from fossil fuels</u>: the package includes a legislative proposal to increase the Renewable Energy Target from 40% to 45%. This is supported by significant proposals on domestic solar as part of an EU Solar Strategy. Permitting for renewable energy projects is also critical, supported by a recommendation to speed up the process which states that "Member States should start as soon as possible to identify suitable land and sea areas [for renewable energy projects] and to prepare plans for particularly suitable areas ("renewables go-to areas"). A legislative update to the Renewable Energy Directive will recognise renewable energy as an overriding public interest.
- Investment and reforms: The Commission assesses the REPowerEU plan will require an additional investment in infrastructure of €210 billion between now and 2027, on top of what is already needed to realise the objectives of the Fit for 55 proposals. It is proposed that Member States could update the plans they submit under the Recover and Resilience Facility (RRF) to reflect REPowerEU actions, investments and reforms. The Commission proposes to increase the RRF financial envelope with €20 billion in grants from the sale of EU Emission Trading System allowances currently held in the Market Stability Reserve.

# IV. North Sea Energy Conference, Copy of Commission Press Report

Commission President Von der Leyen announced the REPowerEU publications at a North Sea Energy Conference on Wednesday 18 May — this Conference was attended at leader level by Belgium, Denmark, Germany, and Netherlands. The aims of this Conference were to scale up offshore wind and green hydrogen across the North Sea 'develop and expand offshore energy as part of an integral vision of the North Sea with the aim to realise a future proof offshore energy system in the North Sea'. The North Sea as a Green Power Plant of Europe declaration was committed to by the leaders, highlights of the commitments include:

- combined targets for offshore wind of at least 65 GW by 2030
- expanding the world's first energy island to its maximum potential capacity of 10 GW by 2040
- large-scale onshore and offshore production of green hydrogen across 'entire North Sea territory'
- explore the possible synergies of cooperating on offshore hydrogen production and transmission
- ongoing work to establish an Important Projects of Common European Interest (IPCEI) on green hydrogen and consider further options for cross-border cooperation

To reach these strategic goals, each of our four Member States will commit a team of experts to this task with a view towards presenting preliminary findings within one year, taking stock in December 2022 at the margins of the Energy Council. They also committed to working together to achieve the wider European goals of 300 GW Offshore Renewable Energy setting ambition for the EU to reach climate neutrality.

V. Versailles Declaration, 11 March [Energy Extract]

#### REDUCING OUR ENERGY DEPENDENCIES

- 14. Over the past few years, the European Union has set ambitious targets to reach the objective of climate neutrality by 2050.
- 15. As the EU works towards achieving that goal, the current situation calls for a thorough reassessment of how we ensure the security of our energy supplies.
- 16. In this respect, we agreed to phase out our dependency on Russian gas, oil and coal imports as soon as possible, in particular by:
  - accelerating the reduction of our overall reliance on fossil fuels, taking into account national circumstances and Member States' choices of their energy mix:
  - diversifying our supplies and routes including through the use of LNG and the development of biogas;
  - further developing a hydrogen market for Europe;
  - speeding up the development of renewables and the production of their key components, as well as streamlining authorisation procedures to accelerate energy projects;
  - completing and improving the interconnection of European gas and electricity networks and fully synchronising our power grids throughout the EU;
  - reinforcing EU contingency planning for security of supply;
  - improving energy efficiency and the management of energy consumption, and promoting a more circular approach to manufacturing and consumption patterns. We invite the Commission to propose a RePowerEU plan to this effect by the end of May.
- 17. In addition, we will continue working on the following strands:
  - ensuring sufficient levels of gas storage and putting in place coordinated refilling operations;
  - monitoring and optimising the functioning of the electricity market;
  - channelling coordinated investment in energy systems, including providing LNG infrastructure;
  - enhancing connectivity with our immediate neighbourhood.
- 18. We invite the Commission to put forward a plan to ensure security of supply and affordable energy prices during the next winter season by the end of March.
- 19. In parallel we will urgently address and consider concrete options, building on the Commission Communication of 8 March 2022, for dealing with the impact of increased energy prices on our citizens and businesses, especially our vulnerable citizens and SMEs, including at the next meeting of the European Council on 24-25 March 2022.

# Attachment 2 - Supplementary briefing

# **Meeting with Marc Botenga MEP**

[note: This meeting was arranged after the submission of the wider briefing pack; and briefing is therefore enclosed as a separate document]

Who	Marc Botenga MEP
What	Meeting Cabinet Secretary for Net Zero, Energy and Transport
Why	Opportunity to talk to a member of the European Parliament's Committee on Industry, Research and Energy (ITRE) about Scotland's renewables and hydrogen ambitions, and understand more about the work of the Committee on things like the Fit for 55 files and RePowerEU proposals.  As Mr Botenga is Belgian it is also a chance to talk about the key issues here in Belgium as well.
Where	European Parliament,
When	12:00 – 12:45 25 October 2022
Likely themes	<ul> <li>Scotland's hydrogen and renewables ambitions;</li> <li>Work of the ITRE Committee, particularly RePowerEU and Fit for 55;</li> <li>Scotland / Belgium collaboration.</li> </ul>
Media	Tweet from ScotGovBrussels account
Supporting official	[redacted under 38(1)(b) exemption]
Attached documents	(i) Biography (ii) Speaking points (iii) Background

# (i) Biography

Marc Botenga has been a Member of the European Parliament since the 2019 elections with the GUE/NGL group. He has since been serving as member on the Committee on Industry, Research and Energy and the Delegation to the ACP-EU Joint Parliamentary Assembly.

He is a member of the EP Energy committee e and has actively intervened on reducing consumer prices.



### **MARC BOTENGA**

Belgian politician of the Workers' Party of Belgium. Since 2019 he is member of the Ninth European Parliament as part of the European United Left–Nordic Green Left (GUE/NGL) party group. He is a member of the Belgium work party.

Born 29 December 1980, he studied law at the Université libre de Bruxelles.

"At the heart of my commitment lies the conviction that for every problem there is a fair and just response, that social justice and environmental justice are inseparable, that their achievement requires the active participation of the greatest number of people and the development of all forms of solidarity".

# (ii) Suggested speaking points:

#### Overall

- Welcome the opportunity to discuss key energy topics and areas of common interest between Scotland and the European Parliament's ITRE Committee, as well as with Belgium.
- Scotland has significant hydrogen and renewables ambitions. We are committed
  to aligning with the EU where practicable, and very keen to cooperate more broadly
  to achieve our shared goals.

### Hydrogen

- Our aim is for Scotland to be seen and considered as a close partner for the reliable supply of green hydrogen to continental Europe.
- We are confident that hydrogen produced in Scotland will be low-cost and competitive in European markets.
- Scotland's current ambition is for 5GW installed hydrogen production capacity by 2030 and 25GW by 2045. This is supported by our huge potential for renewable energy generation, with a pipeline of over 40GW of renewable energy generation.
- Scotland is incredibly well placed in terms of geographical proximity, political stability and infrastructure connectivity to key hydrogen import locations on the northern European mainland. This proximity should significantly reduce transport costs, cut shipping times and increase reliability of supply, as well as reducing the environmental impact of hydrogen imports – be they by pipeline or shipped.

#### **Just Transition**

- We are committed to co-design of our Just Transitions plans to support our wider work to reach Net Zero, ensuring the transition to renewable energy generates jobs, and fairly benefits Scottish people and communities.
- Following the Scottish Government's response to the Just Transition Commission, we committed to publishing a Just Transition Plan for energy, which will be integrated with the forthcoming Energy Strategy Refresh and will outline a coordinated vision for Scotland's energy system using a whole-systems approach.
- We engaged over 1,200 people from the oil and gas sector, NGOs and communities in the Energy Strategy Just Transition Plan consultation this summer. We will publish the strategy in consultation form by the end of 2022.
- Launched the Just Transition Fund, with over £20m pledged to selected projects in the NE and Moray by the end 22/23 financial year.
- I know you discussed with Mr Robertson and Ms Slater the possibility of SG attending a Just Transition side event at COP27, if this is still a possibility we'd be delighted to look at whether we can build it into Ministers programmes.

#### **Offshore Wind Permitting**

 We are following the European Commission's RePowerEU proposals [to end reliance on Russian gas], including the proposals to speed up permitting for offshore renewables. • We have done a lot of work on the permitting regime in Scotland, it would be interesting to hear about any work you have done with the Committee on this, and what you know about what is happening in Belgium on this.

#### Close

• As I have outlined a lot of areas of shared ambition and very happy to expand on the areas covered. I'll hand over to you now.

# Attachment 3 – Meeting notes

# Report of Ministerial Visit to Brussels by Cabinet Secretary for Net Zero, Energy and Transport Michael Matheson, 24 – 25 October 2022

# 24 October

- 1. Note of the 'Hydrogen High Level Roundtable' hosted at Scotland House Brussels
- 2. Note of meetings with Bart Biebuyck Executive Director at the Clean Hydrogen Partnership and Jorgo Chartzimarkakis CEO of Hydrogen Europe

# 25 October

- 3. Note of the meeting with North Netherlands (Drenthe) Minister and Executive Secretary of the North Sea Commission Tjessa Stelpstra
- 4. Note of the Politico Briefing with Politico's Energy Correspondent America Hernandez
- 5. Note of the bilateral with Marc Botenga Member of the European Parliament (MEP)

1. Note of the 'Hydrogen High Level Roundtable' hosted at Scotland House Brussels (SHB), Schuman 6, Brussels. 15:30 – 17:00, 24 October 2022 - To note this roundtable was conducted under Chatham House Rules.

The Roundtable was convened by Cabinet Secretary Mr Matheson, hosted by Scotland House Brussels and attended by 14 external stakeholders – from the European Commission, industry representatives and governments (both federal and regional level).

# [657 words redacted under 32(1)(a) exemption]

2. Note of the Bart Biebuyck and Jorgo Chartzimarkakis meetings, 18:30 – 19:30 at the Hydrogen Europe Reception for European Hydrogen Week.

Mr Matheson had positive introduction meetings with Bart Biebuyck Executive Director at the Clean Hydrogen Partnership and Jorgo Chartzimarkakis CEO of Hydrogen Europe. These took place during EU Hydrogen week.

They discussed the recent developments at an EU, such as those in REPOWEREU, the Commission Work Programme and recent EU funding programmes. These included:

- The commitment in the 2023 Commission Work Programme to create a Hydrogen Bank, whereby the Bank will guarantee purchase of 1m tonnes per year (available to Member States);
- Commitments found in REPOWER EU, such as the targets for EU production of renewable Hydrogen (10 million tonnes annually by 2030) and their import requirements (including at a Member State level);
- Proposals for the EU Hydrogen backbone and potential next steps for developments.

Mr Matheson outlined the work being developed by the Net Zero Technology Centre's Hydrogen Backbone Link project to assess the potential to connect Scotland to a European Hydrogen Backbone by either repurposing and optimising existing pipeline infrastructure or through the development of new infrastructure. The Hydrogen Backbone Link project assessed the opportunity for Scotland and the rest of the UK to supply hydrogen to Europe as part of an extensive hydrogen transport and distribution system, in order to help provide an insight into the backbone requirements for Scotland.

They discussed a number of shared priorities and opportunities for future engagement – which officials have been tasked to take forward.

3. Note of the meeting with North Netherlands (Drenthe) Minister and Executive Secretary of the North Sea Commission Tjessa Stelpstra - accompanied by Patrick Cnubbens, Hydrogen lead.

A useful and engaging meeting between the Cabinet Secretary and the important region of Drenthe. The Ministers discussed the proposals for a European Hydrogen Backbone, the shared interests in ensuring a just & fair transition for all in switching to renewables and identified future opportunities for further engagement.

On the European Hydrogen Backbone the Ministers discussed the Commission's proposals as set out in their REPOWEREU publication. The Drenthe Minister explained the work underway in the Netherlands to create a Netherlands Hydrogen backbone, which will join up all key areas of the country including the relevant ports. Ministers discussed infrastructure and outlines the research currently underway by both nations (into how to best use existing infrastructure, balancing all considerations).

Both Ministers set out the importance of skills and investments remaining in the regions, and the importance of a fair & just transition for all. Given both areas have existing energy expertise, they discussed the importance of ensuring skills were transferrable and that individuals could be supported during any transition to renewables – i.e. through skills passports, new training courses and in the area of Drenthe the creation of new Hydrogen degrees. They discussed both the EU Just Transition Fund and the funding available in Scotland for Just Transition.

Looking ahead both Ministers agreed to share follow up information on Just Transition and for officials to identify further opportunities to work together across the areas discussed – including on the EU Hydrogen Backbone and skills. They noted future opportunities for discussions when the North Sea Commission visit Scotland later this year, and the possibilities to see high profile Scottish projects such as the European Marine Energy Centre in Orkney.

# 4. Note of the Politico Briefing with Politico's Energy Correspondent America Hernandez

Michael Matheson (MM) met with Politico's Energy Correspondent America Hernandez (AH) for an on the record interview, focused on Scotland's hydrogen policy and capability.

# AH opened the interview by asking for a 'lay of the land' on Scotland and hydrogen, e.g. any notable investments or ambitions.

MM: Russia's illegal war of aggression in Ukraine has shifted the policy agenda markedly. Europe faces combined challenges of meeting climate change targets, high-costs and issues of energy security. Scotland has a vision of how to overcome these, with hydrogen playing an important part. Early adoption of hydrogen technology in Scotland will come from efforts to decarbonise heavy/energy-intensive industries and in the transport sector; with more common use by domestic consumers to follow. Scotland's Hydrogen Action Plan intends to deliver 5gw of hydrogen by 2030.

There are now 50 private sector developments in Scotland. If they produce the output they intend to, it will exceed 5gw of energy. Investment in Scotlish hydrogen is helped by the EU providing increased confidence of buyers for hydrogen. The EU's hydrogen bank and general committed to hydrogen contribute to this confidence.

Scotland produces 13gw of renewable energy presently (on and off shore wind, solar, bio-waste etc.), with 16gw worth of capacity in development. Scotland has just completed the world's largest offshore wind leasing round. This is projected to deliver 28gw of renewable energy. If this initiative was to produce all of its energy capacity, it would double Europe's off-shore wind output.

# AH: It is common to see 'hopeful' predictions on hydrogen production. What do Scotland and the EU need to do to get targets to fruition?

MM: The requirement for success is not just natural resources but also people/skills and a regulatory framework. Scotland has the advantage of 'being in the energy business' for five decades from oil and gas. Scotland already has a skillset in the energy sector, with vast expertise in delivering these projects. The oil and gas sector is increasingly moving into the hydrogen space. We have the Net Zero Energy Technology Centre in Aberdeen to support the sector transitioning to renewable energy. Scotland has a rich energy heritage and the regulatory framework required for a hydrogen economy.

To make green hydrogen cost-effective, effective transportation systems are needed. Scotland is just 700km from the north coast of Europe. The European Commission's backbone proposals is a good start but could be more ambitious to connect existing oil and gas infrastructure to bring energy into Europe. Regulatory alignment is needed across Europe for safety, as well as skills and people. A 'skills passport' could support people to move sectors without unnecessary training.

# AH: Thoughts on EU's Decarbonise Gas Package? Does Scotland suffer from 'red tape' other countries complain of; and are these mostly solvable at the EU level?

MM: Scotland is further ahead than most in decarbonising gas. Last year, Scotland produced enough renewable energy to meet energy needs for three years. The Gas Package is a step in the right direction but more can be done to speed up the roll-out of renewables. Benefits of this to be found in tackling climate change and reducing costs.

The challenge is to make sure regulatory framework aligns with overall objectives. E.g., are project consenting processes, which can take 5/6 years, practical in terms of 2030 energy targets? There is a need for a collective framework that allows targets to be achieved.

# AH: The European Commission favours a model of 'go to areas' for windfarms, does this solve the problem?

MM: Scotland had a three year development of a Marine Policy Framework, involving scientific surveys of Scottish waters to decide on areas for development. MM mentioned here that Scotland has 2% of Europe's population but 25% of Europe's offshore wind and tidal capacity]. Areas designated from this for the commercial leasing round. Commission has taken similar approach. However, that is only initial stages; windfarms still can require five stages of consent to be rolled out. To create certainty in the sector, speed of project implementation needs to be known.

# AH: This week is Hydrogen Week - what is MM's one message for the Commission?

MM: A point needs to be reached soon on how hydrogen can be delivered into northern Europe through a pipeline network, which connects our remote and rural areas (economic advantages for them). The Commission's backbone proposal can go further. The backbone will give confidence to the sector and drive investment. It is to everyone's benefit that Scotland is considered (currently a gap in the backbone proposal), given Scotland's potential. The Commission has so far "missed the opportunity" to include Scotland's potential in their planning.

# AH: Where are the industrial clusters in Scotland to justify Scotland's presence in the backbone?

MM: The point from the production of electricity and green hydrogen is within one hour. So green hydrogen should be produced as close to source as possible, which means production in Scotland.

Looking at example of Orkney, there are plans for a 2gw green hydrogen production facility, linked to offshore wind farms. It would make sense for hydrogen backbone to major production facilities. On examples of decarbonising, Grangemouth produces Scotland, north of England and N. Ireland's petrol and jet fuel. Plans there to transition to blue hydrogen, linked into carbon capture and storage. Scotland has a unique offer of importing carbon to pump into empty aquifers from the oil and gas sector.

# AH: Are there plans for North Sea cooperation?

MM: SG has commissioned work in the Net Zero Technology Centre looking at options for linking Scotland to existing backbone proposals.

5. Note of the bilateral with Marc Botenga Member of the European Parliament (MEP), 12:00 – 13:00, 25 October at the European Parliament, Brussels.

Mr Matheson had a positive introductory meeting with Belgian MEP Marc Botenga of the Workers' Party of Belgium and the European United Left-Nordic Green Left group in the European Parliament. MEP Botenga is a member of the Industry, Research and Energy Committee (ITRE Committee).

They had an informal discussion focussed on the EU's recent energy developments, the importance of a just transition to renewables. Key areas from the discussion included:

- The EU's publication of RePowerEU and the importance of the role of hydrogen as part of the energy transition.
- The heavy workload of the ITRE committee, with the number of energy and infrastructure files that are being tackled.
- Mr Matheson outlined Scotland's hydrogen expertise/ know-how/ offer/ and export potential. Highlighting the importance of recent developments within Scotland such as Scotwind.
- Mr Matheson and MEP Botenga agreed on the importance of addressing the social angle in the switch to renewables to ensure that decarbonisation brings about a just transition for all.
- They have also discussed shared values and regulatory regimes and frameworks that can be built upon for future cooperation.

There were a number of shared priorities and objectives discussed – including the possibility of a visit to Scotland from members of the ITRE European Parliament – Committee. Officials will continue the engagement with MEP Botenga's office.