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Minister for Energy and the Environment Visit to Arctic Circle Assembly, Reykjavik, Iceland 18 – 21 October 2023

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4	Meeting with Halla Hrund Logadóttir Director-General of Iceland's National Energy Authority	16:30	20
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6	Meeting with Mariam Almheiri, Minister of Climate Change and Environment of the UAE	09:50	23
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17	Welcome remarks at breakout session "Accelerating Deployment of Renewable Energy With Rural Northern and Arctic Communities"	16:10	53
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SCENE SETTER

[A full scene setter will follow separately]

Team Scotland stall and other Scottish delegates

For the first time, there will be a Scotland **stall** at the conference, giving us a distinctive presence and extra visibility at the event. Costs are covered by the Scottish Government and the Scotland Brand marque will be prominent. In keeping with a "Team Scotland" approach, we have invited Highlands and Island Enterprise (HIE) and the Scottish Arctic Network (ScAN, established with SG support to increase collaboration between Scotland-based Arctic researchers) to use the stall as their base at the event, together with SG officials. This will allow us to project a joint policy-research-economic development offer and a range of Scottish voices among international stakeholders. Materials to be distributed from the stall include a **brochure** setting out Scotland's international energy offer and copies of our Arctic policy framework.

[REDACTED] – Professor at the Scottish Association for Marine Science (SAMS) and former Director of the Scottish Association for Geoscience, Environment and Society (SAGES) – will attend the first day of the conference. He is Scotland's representative on the Arctic Circle Advisory Board.

Monica Lennon MSP and **Mark Ruskell MSP** will both be at the conference as members of the Net Zero, Energy and Transport Committee. They will speak at a session organised by Scottish Parliament officials titled "*Challenges of meeting wind energy and biodiversity ambitions: a parliamentary view*". Unfortunately, it clashes with your participation in the Nordic Energy Research conference in the morning of 19 October. You will meet the Parliament delegation at the reception hosted by Ambassador Mathew.

Orkney Islands Council will be represented by Leader James Stockan and CEO Oliver Reid.

A number of other Scotland-based academics are expected to attend the conference.

ITINERARY AND LOGISTICS

All timings local (Iceland 1 hr behind Scotland)			
Wednesday 18 October				
Time	Activity	Venue	Supporting Official/s (in addition to PS)	
	Car to airport arranged by MPO			
07:15 (BST) – 08:40 (GMT)	Flight (EasyJet EZY3315)	Edinburgh to Keflavik	[REDACTED]	
09:10 - 09:30	Car (Driver: [REDACTED])	Keflavik airport to HS Orka	[REDACTED]	
09:30 - 11:00	Visit to HS Orka and site tour	Svartsengi, 240 Grindavík	[REDACTED] Michelle Quinn, [REDACTED]	
11:00 - 11:45	Car (Driver: [REDACTED])	HS Orka to Reykjavik Edition Hotel	[REDACTED] Michelle Quinn, [REDACTED]	
11:45 - 13:45	Early check-in if possible (hotel aware of ETA) / downtime / lunch	Reykjavik Edition Hotel, Austurbakki 2, 101 Reykjavik		
13:45 - 14:00	Taxi or walk (weather/time dependent - 1km)	Hotel to British Embassy	[REDACTED]	
14:00 - 14:40	Meeting with Bryony Matthew, UK Ambassador to Iceland	British Embassy Laufásvegur 31, 101 Reykjavík	[REDACTED]	
14:40 - 14:50	Walk (550m)	British Embassy to Icelandic Parliament	[REDACTED]	
15:00 - 16:00	Meeting with Icelandic Parliament Environment and Communications Committee	Icelandic Parliament building	[REDACTED] Michelle Quinn, [REDACTED]	
16:00 - 16:10	Walk	Parliament to British Embassy	[REDACTED] Michelle Quinn, [REDACTED]	
16:30 - 17:15	Meeting with Halla Hrund Logadóttir, Director General, Iceland's National Energy Authority	Conference room, British Embassy	[REDACTED] Michelle Quinn, [REDACTED]	

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17:30 - 19:00	Attend Ambassador's reception (next door	British Ambassador's Residence,	[REDACTED] Michelle Quinn [REDACTED]
19:15 - 20:15	to Embassy, can leave early) Dinner (informal, no externals)	Laufásvegur 33, 101 Reykjavik Restaurant tbc on the ground	tbc on the ground
Overnight	Reykjavik Edition Hotel	Austurbakki 2, 101 Reykjavik	
Thursday 19 October			
Time	Activity	Venue	
~~~~	Meeting with Mariam Almheiri, Minister for Climate Change and the Environment,		
<u>09:50 - 10:20</u> 10:25 - 10:40	United Arab Emirates Taxi	Nes room, Harpa forth floor Harpa to Hilton Reykjavik Nordica	[REDACTED]
10:40 - 11:20	Watch contributions before own panel discussion	Hilton Reykjavik Nordica, 2 Suðurlandsbraut 108 Reykjavík	[REDACTED] Michelle Quinn, [REDACTED]
11:20 - 11:50	Panel discussion at Energy Security and Citizens conference	Hilton Reykjavik Nordica	[REDACTED] Michelle Quinn, [REDACTED]
12:00 - 12:30	Buffet lunch at ESC conference	Hilton Reykjavik Nordica	[REDACTED] Michelle Quinn, [REDACTED]
12:45 - 13:15	Meeting with Karen Ellemann, Secretary General, Nordic Council of Ministers	Hilton Reykjavik Nordica (room arranged by organisers)	[REDACTED]
13:15 - 13:30	Taxi	Hilton Reykjavik Nordica to Edition	[REDACTED]
13:30 - 14:25	Prep time	Edition hotel	
14:25 - 14:40	Set-up for plenary panel discussion	Green room, behind Silfurberg Hall	[REDACTED] Michelle Quinn, [REDACTED]
14:20 (approx) - 15:00	Plenary panel discussion with Environment Ministers of Sweden, Iceland and Greenland	Silfurberg Hall, Harpa Second Level	[REDACTED] Michelle Quinn, [REDACTED]
15:00 - 16:15	Prep time	Edition hotel	

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16:15 - 16:45	Meeting with Romina Pourmokhtari, Minister of Climate and Environment, Sweden	Studio 2+3 meeting room, Edition hotel Studio 2+3 meeting room, Edition	[REDACTED]
17:00 - 17:30	Interview with [REDACTED] Bloomberg	hotel	[REDACTED]
17:45 - 18:15	Arrival and network pre-COP28 meeting	Silfurberg Hall, Harpa Second Level	Two from [REDACTED]
18:15 - 20:15	High-level roundtable discussion with President and CEO of COP28	Silfurberg Hall, Harpa Second Level	Two from [REDACTED]
20:30 - 21:30 [For info] 20:15	Late dinner (informal, no externals) [REDACTED] attending APPG Polar Regions dinner	Restaurant tbc on the ground	tbc on the ground
Overnight	Reykjavik Edition Hotel	Austurbakki 2, 101 Reykjavik	
Friday 20 October	1		1
Time	Activity	Venue	
09:00 - 09:20	Meeting with Ólafur Ragnar Grímsson, Chairman, Arctic Circle	Vísa, Harpa ground floor	[REDACTED]
[For info] 08:30 - 09:25	Michelle Quinn speaking in breakout session: "Offshore Wind Energy in the North Atlantic"	Norðurljós, Harpa second floor	
09:30 - 09:40	Set-up for breakout session	Norðurljós, Harpa second floor	[REDACTED] Michelle Quinn, [REDACTED]
09:40 - 11:05	Speaking at breakout session: "Building a North Atlantic Green Energy Hub"	Norðurljós, Harpa second floor	[REDACTED] Michelle Quinn, [REDACTED]
11:15 – 11:55	[Optional] Invitational roundtable meeting on: "Clean Energy Development and Transitions in the Arctic"	Viðey, Harpa second floor	
12:15 - 13:00	Lunch	Main atrium, Harpa	[REDACTED]
13:00 - 13:45	Meeting with Guðlaugur Þór Þórðarson, Minister for the Environment, Energy and Climate, Iceland	Sund, Harpa fourth floor	[REDACTED] Michelle Quinn

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14:00 - 14:30	Meeting with Dan Vandal, Minister for Northern Affairs, Canada	Vik, Harpa fourth floor Access code: [REDACTED]	[REDACTED]
14:50 - 15:00	Set-up for breakout session	Kaldalón, Harpa ground floor	[REDACTED] Michelle Quinn, [REDACTED]
	Speaking at breakout session: "From the North Sea to the Arctic: Creating Mutual		[REDACTED] Michelle Quinn, [REDACTED]
15:00 - 15:55	Energy Security"	Kaldalón, Harpa ground floor	
16:05 - 16:10	Set-up for breakout session	Ballroom A, Edition Hotel	[REDACTED] Michelle Quinn, [REDACTED]
16:10 - 16:30 (leaving early)	Welcome remarks at breakout session: "Accelerating Deployment of Renewable Energy With Rural Northern And Arctic Communities"	Ballroom A, Edition Hotel	[REDACTED] Michelle Quinn, [REDACTED]
16:30 - 17:15	Prep time	Edition hotel	
17:15 - 17:45	Meeting with Zakia Khattabi, Minister for Climate, Environment, Sustainability and the Green Deal, Belgium	Studio 2+3 meeting room, Edition hotel	[REDACTED]
17:45 - 18:10	Prep time	Edition hotel	
18:10 - 18:30	Set-up for plenary session	Green room, behind Silfurberg Hall	[REDACTED] Michelle Quinn, [REDACTED]
18:30 (approx) - 19:15	Plenary speech and panel discussion: "Green Hydrogen: The Energy Future of the North?"	Silfurberg Hall, Harpa Second Level	[REDACTED] Michelle Quinn, [REDACTED]
[For info] 20:00	Offshore wind officials attend dinner with panellists from hydrogen session		
20:00 - 21:00	Dinner (informal, no externals)	Restaurant tbc on the ground	tbc on the ground
Overnight	Reykjavik Edition Hotel	Austurbakki 2, 101 Reykjavik	*
Saturday 21 October		· · · · · · · · · · · · · · · · · · ·	
Time	Activity	Venue	
05:50 - 06:50	Taxi	Edition hotel to Keflavik airport	
08:50 (GMT) – 12:10 (BST)	Flight (Easyjet EZY3316)	Keflavik to Edinburgh	

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## **KEY CONTACTS**

	SCOTTI	SH GOVERNMENT	
[REDACTED]	Private Secretary	[REDACTED]	MinisterEE@gov.scot
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	Europe and Arctic		
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Quinn	Offshore Wind		
[REDACTED]	Offshore Wind	[REDACTED]	[REDACTED]
	Coordinator		
[REDACTED]	Climate Desk	[REDACTED]	[REDACTED]
	Officer, DEXA		
		H GOVERNMENT -	
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[REDACTED]	Media manager	[REDACTED]	[REDACTED]
INLUACILD		TISH EMBASSY R	
Lisa	Deputy	[REDACTED]	
Waugh	Ambassador		
waugn	Ambassauui		
[REDACTED]	Second Secretary	[REDACTED]	[REDACTED]
		RCTIC CIRCLE AS	SEMBLY
[REDACTED]	Communications	[REDACTED]	[REDACTED]
	Coordinator		
[REDACTED]	Project Manager	[REDACTED]	[REDACTED]
		HOTELS	
Reykjavik Editi	on Hotel	+354 582 0000	reservations.rek@editionhotels.com
Austurbakki 2			
101 Reykjavik			
		MEETING CONT	ACTS
Tómas Már Sig	purðsson	[REDACTED]	[REDACTED]
HS Orka visit	Jan 000011	[]	[]
[REDACTED]			
		[REDACTED]	
	ommittee	[REDACTED]	[REDACTED]
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Environment C Halla Hrund Lc Iceland Nation		[REDACTED]	[REDACTED]
Environment C Halla Hrund Lo Iceland Nationa [REDACTED]	ogadóttir		
Environment C Halla Hrund Lo Iceland Nationa [REDACTED] (UAE)	ogadóttir	[REDACTED]	[REDACTED] [REDACTED]
Environment C Halla Hrund Lo Iceland Nationa [REDACTED] (UAE) [REDACTED]	gadóttir al Energy Authority	[REDACTED]	[REDACTED]
Environment C Halla Hrund Lo Iceland Nationa [REDACTED] (UAE) [REDACTED] Nordic Energy	gadóttir al Energy Authority	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]
Environment C Halla Hrund Lo Iceland Nationa [REDACTED] (UAE) [REDACTED] Nordic Energy Klaus Skytte	gadóttir al Energy Authority Research	[REDACTED]	[REDACTED] [REDACTED]
Environment C Halla Hrund Lo Iceland Nationa [REDACTED] (UAE) [REDACTED] Nordic Energy Klaus Skytte Nordic Energy	gadóttir al Energy Authority Research	[REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED]
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(Bloomberg)		
[REDACTED]	[REDACTED]	[REDACTED]
(Belgian Environment Minister)		-
[REDACTED]	[REDACTED]	[REDACTED]
(Senator Murkowski)		
[REDACTED]	[REDACTED]	[REDACTED]
Icelandic PM office		

## Visit to HS Orka Resource Park Wednesday 18 October 2023, 09:30 – 11:00

Location	Svartsengi, 240 Grindavík	
Points for discussion	<ul> <li>Geothermal energy constitutes a relatively small component of Scotland's renewable energy mix at present.</li> <li>The Scottish Government is however keen to improve understanding of Scotland's geothermal resources and how they can help our journey to net zero.</li> <li>Interested in your business model and how your attract companies to your business park. Why this site and not one of the many other geothermal plants in Iceland?</li> <li>How is electricity distributed from the power station? Who owns the infrastructure?</li> </ul>	
Why	You will have the opportunity to learn more about the cluster of green and sustainable businesses utilising geothermal energy from the HS Orka plant. Sectors represented in the business park include tourism, aquaculture, life sciences, fisheries and of course energy production. Work is underway to expand the geothermal power plant. The project will increase the plant's production capacity from the current 184 MW. During his trip to Iceland in June 2023, Cabinet Secretary Gray visited another geothermal power plant located just outside Reykjavik. The focus of your programme will be primarily on the sustainable innovation opportunities and circular business cluster models that can emerge around renewable energy sources.	
Who	Tómas Már Sigurðsson – CEO, HS Orka	
	He was appointed CEO of HS Orka in January 2020. Prior to joining HS Orka, Tómas worked at Alcoa for sixteen years where he held roles including Executive Vice President. He has served on the board of various organizations, including as chairman of the Iceland Chamber of Commerce (2009-2012), board member for the Federation of Icelandic Industries (2005-2011) and executive board member for Europe Aluminium, Eurometaux and Business Europe.	
	Jón Ásgeirsson – Executive Vice President, Strategy and Improvement	
	Before joining HS Orka in March 2020, he worked for over ten years for metal and mining company Rio Tinto. Jón is a member of various boards as well as being chairman of the Red Cross in the capital region of Reykjavík. He holds a bachelor's degree in Chemistry from the University of Iceland and a master's degree in Process Engineering from the University of Stuttgart	
Attached documents	Annex A – Itinerary and background info Annex B – Geothermal Energy – Core brief	

## ITINERARY AND BACKGROUND INFO

#### **Itinerary**

9:30	Arrival and welcome
9:40	Meeting with Tómas Már Sigurðsson, CEO of HS Orka, and Jón Ásgeirsson, EVP of Resource Park and Strategy
	Presentation of HS Orka's operations and its Resource Park.
10:30	Tour through Svartsengi Power Plant
11:00	Departure

## **Background information**

Built around HS Orka's geothermal power plants, very close to the famous Blue Lagoon, the Resource Park is a leading cluster for green and sustainable businesses. A world-first established 40 years ago, it now hosts 11 companies including:

- HS Orka (the power plant itself among other services, it offers the opportunity to rent a charging station for electric cars).
- HS Veitur (distributes electricity, hot water and groundwater in southern Iceland)
- Stolt Sea Farm Iceland (operates in the high-tech aquaculture sector)
- Haustak and Laugafiskur (produces dry seafood)
- Carbon Recycling International (produces renewable methanol)
- ORF Genetics (produces growth factors for medical research and skin care products)
- Blue Lagoon Research Centre (a pioneer in the cultivation of algae in Iceland)
- Matorka (raises salmon and Arctic char)
- Northern Light Inn
- Blue Lagoon Spa
- Blue Lagoon Clinic

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**GEOTHERMAL ENERGY – CORE BRIEF** 

## Lines to take

- Geothermal energy is the natural heat that exists in the ground beneath our feet. This heat can be used for space and water heating.
- Scotland's geology provides the potential for deep geothermal to contribute to heat decarbonisation. The 2021 Heat in Buildings Strategy includes a commitment to continue to explore this potential.
- The Scottish Government continues to work with stakeholders to improve understanding of Scotland's deep geothermal resource and how it can help the journey to net zero.

#### Heat in Buildings Strategy

The Heat in Buildings Strategy sets out the Scottish Government's vision for the future of heat in buildings, and the actions being taken in the buildings sector to deliver climate change commitments, maximise economic opportunities, and ensure a just transition, including helping address fuel poverty. The Strategy recognises the potential role which geothermal could play, for some communities, in the decarbonisation of heat.

#### Scotland's deep geothermal potential

Significant potential for deep geothermal in Scotland has been identified in:

- Abandoned mineworkings (Scotland's Midland Valley is underlain, in many parts, by a network of abandoned mines);
- Hot sedimentary aquifers (bodies of permeable rock that can conduct significant quantities of groundwater); and
- Hot dry rocks (the best prospects of which, in Scotland, are likely to exist in East Grampian and to the north of Inverness).

#### Regulatory Guidance

To help promote awareness amongst stakeholders of the regulatory framework for deep geothermal projects in Scotland, a guidance document was developed in liaison with the relevant regulatory authorities and is available on the SG website. The guidance is currently being reviewed and updated with the intention of publishing the revised guidance by 31 December 2023.

#### **Glasgow Observatory**

The Glasgow Observatory is one of three sites which form the British Geological Survey's UK Geoenergy Observatories project. Data collected from the 12 boreholes which have been drilled at the site will help improve understanding of the role that minewater geothermal can play in decarbonising heat in homes and businesses. The research site was officially opened on 7 December 2020 and datasets are regularly published on the Observatory's website.

#### National Geothermal Innovation Centre

The Net Zero Technology Centre is leading on the establishment of a national geothermal innovation centre and has been engaging with stakeholders across the UK, including the UK Government and devolved administrations.

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## Stakeholder interest in geothermal heat and electricity

Following the development of the unconventional oil and gas industry in the USA, there was growing interest in Britain in the potential to exploit shale gas resources, including in Scotland's Midland Valley. However, there were also growing concerns about the potential impact of the techniques used to extract shale gas, in particular hydraulic fracturing (also known as 'fracking').

As local community, environmental and political opposition to fracking grew across Britain, many geothermal stakeholders recognised the potential for the conflation of concerns about shale gas exploration with deep geothermal exploration for electricity. As a result, many opted to avoid the potential controversy and concentrate on geothermal heat only projects.

However, in the last few years, some stakeholders have again turned their attention to the extraction of geothermal energy for heat and electricity purposes. In Cornwall, the United Downs Deep Geothermal Power project will be the UK's first deep geothermal power plant. It will extract heat from the hot rocks several kilometres beneath the surface and use this energy for heating and electricity generation.

Last year, Highlands and Islands Enterprise (HIE) and Cairngorm Mountain Scotland Limited (CMSL) commissioned a feasibility study into the geothermal heat and electricity opportunities in the Cairngorm Estate (of which HIE is the custodian).

#### [REDACTED]

#### Scottish Government's focus

Due to the availability of other renewable technologies for electricity generation and the lack of interest amongst stakeholders in exploring Scotland's geothermal electricity potential, in recent years, the Scottish Government's focus has been on geothermal heat potential. The Heat in Buildings Strategy recognises that deep geothermal energy is not yet well developed in Scotland but has a potential role to play in heat decarbonisation in some areas.

<u>There are currently no deep geothermal heat or electricity schemes operational in Scotland</u> but officials are working closely with delivery partners promoting awareness, amongst stakeholders, of the availability of data about the sub-surface in Scotland and potential funding opportunities.

#### Repurposing oil and gas wells for geothermal

There is growing interest, within the onshore and offshore oil and gas industries, in using existing wells for greener purposes as part of the energy transition. For example, repurposing onshore wells for the extraction of geothermal heat which could be supplied to local communities by heat network.

Last summer, the NZTC commissioned a feasibility study to decarbonise the UK Continental Shelf offshore hydrocarbon production. The Magnus Platform (situated 160km north east of the Shetland Islands) was used as the basis to assess the potential of using energy harnessed from non-producing wells and the produced water stream (produced water is water which is extracted along with the oil and gas and, the older the well, the more water is likely to be produced during extraction).

#### [REDACTED]

#### National Geothermal Innovation Centre

In early July, the NZTC wrote to Scottish Ministers introducing proposals for a national geothermal innovation centre.

[REDACTED]

## Welcome meeting with Bryony Mathew – British Ambassador to Iceland Wednesday 18 October 2023, 14:00 – 14:40

Location	British Embassy, Laufásvegur 31, 101 Reykjavík	
Points for discussion	<ul> <li>Appreciate your team's assistance with the organisation of my visit.</li> <li>Interested in your take on recent political developments in Iceland. [REDACTED]</li> <li>What are your thoughts on the mini-reshuffle at the weekend? What does it tell us about infra-coalition dynamics?</li> <li>Wind energy is emerging as a key area for collaboration between Scotland and Iceland. [REDACTED]</li> <li>Recent months have seen a further intensification of Scottish-Icelandic collaboration with regular Ministerial visits in both directions.</li> <li>How does Scotland feature in the Embassy's business plans? I would encourage your team to seek input from Scottish Government officials.</li> </ul>	
Who	Bryony Mathew – British Ambassador to Iceland	
	Bryony has been Ambassador at the British Embassy in Reykjavik since August 2021. She joined the Diplomatic Service in 2005, and has served in London, Bangalore, Beijing and Phnom Penh. Prior to joining the service, she studied Experimental Psychology at Oxford and gained a PhD in Neuroscience from University College, London. Bryony is accompanied in Iceland by her husband Paul and her two children.	
	Ambassador Mathew will join your meeting with Minister Þórðarson.	
Why	The Ambassador has offered to brief you on the latest political developments in Iceland. This meeting will also help inform the engagements with Icelandic energy stakeholders later in the day.	
	The Embassy have taken an open and forthcoming approach to working with the Scottish Government, including by supporting knowledge exchange with Iceland on renewable energy solutions. There remains scope for greater collaboration but you may want to make some positive comments about the relationship between the Embassy and DEXA officials.	
Social Media	@BryonyMathew @UKinIceland	
Attached documents	Annex A – Core brief	

#### OFFICIAL - SENSITIVE

## CORE BRIEF

#### Political developments in Iceland

- A coalition consisting of Left Green Movement (PM Jakobsdóttir's party), Independence Party (centre-right) and Progressive Party (centre) has been in power since 2017.
- Following the general election in 2021, the coalition increased its majority due to a strong performance by Independence Party and Progressive Party. The Left-Green Movement lost 3 seats.
- Despite consistently high personal ratings for the PM, recent polls suggest a <u>sharp decline in</u> <u>approval for the current government</u>, with the Left-Green Movement haemorrhaging further support and polling under 6%.
- Last week, Finance Minister Benediktsson (who chairs the Independence Party) resigned following the ombudsman's ruling he should have recused himself from decisions concerning the privatisation of Íslandsbanki in 2022 due a conflict of interest. However, after a <u>mini-reshuffle at the weekend</u> he kept a job in government and simply swapped places with Foreign Minister Gylfadóttir (also Independence Party).
- [REDACTED]
- Meanwhile, the Social Democrats the main opposition party are polling at around 30%. A meteoric rise that has seen them triple their support since the 2021 elections.
- [REDACTED]

#### Scottish-Icelandic collaboration on wind energy

- The Icelandic Environment and Communications Committee paid a study visit to Scotland in January 2023 to learn more about our approach to wind energy developments (as well as national parks and rural transport). During their visit, they met Mr Matheson and Mr Robertson.
- Building on this visit, a delegation from SG's Offshore Wind Directorate, Marine Scotland and SEE Renewables attended an <u>event organised by the British Embassy in Reykjavik</u> and had a follow-up meeting with the Committee members in the margins of that event.

#### Recent and upcoming ministerial engagements

Reykjavik Global Forum – November 2023

- Co-hosted annually in partnership with the Icelandic Government and the Parliament of Iceland, the Reykjavik Global Forum serves as a platform for global leaders to connect, confer and exchange best practices on gender equality and leadership.
- Minister McKelvie has confirmed her attendance at the conference and work is currently underway to develop a programme of engagements for the Minister.

#### New York Climate Week - September 2023

• Following a successful meeting in Edinburgh a few weeks earlier, the FM met the Icelandic PM at the New York Climate Week to explore opportunities for collaboration on gender-based violence.

#### Visit of Iceland's Minister for Food, Agriculture and Fisheries to Scotland – September 2023

• As part of her itinerary, the Icelandic Minister visited the James Hutton Institute (Dundee), Scotland's Rural College (Edinburgh) and met Cabinet Secretary Gougeon.

#### Wellbeing Economy Forum – June 2023

 Cabinet Secretary Gray represented the Scottish Government at the Wellbeing Economy (WEGo) Forum in Reykjavik. He met PM Jakobsdóttir and Finance Minister Benediktsson in the margins of the event. <u>He also held a short welcome meeting with Ambassador Mathew</u>.

#### BRIEFING NOTE 3 Meeting with Icelandic Parliament's Environment and Communications Committee Wednesday 18 October 2023, 15:00 – 16:00

Location	Icelandic Parliament. The Chair will meet the Minister at the entrance (the glass building) and walk together to the conference room.
Points for discussion	<ul> <li>Pleased to see bilateral knowledge exchange on wind energy solutions continue at pace. I know you visited Scotland in January.</li> <li>What are the main concerns around wind energy projects in Iceland and what further expertise can Scotland help to address those issues?</li> <li>You may be interested in our Onshore Wind Sector Deal – a shared commitment between Government and industry to deliver on our collective ambition of 20 GW of onshore wind in Scotland by 2030 while working even more closely with local communities.</li> <li>We have substantial expertise in relation to spatial and marine planning. Wind energy developments are also informed by extensive stakeholder engagement.</li> <li>Following Iceland, Scotland was the second country to sign up to the 24/7 Carbon-free Energy Compact. Our ambitions are clearly aligned.</li> <li>Scotland is working at pace to create an hydrogen economy to meet our net zero ambitions and produce international trade opportunities. It is another important area for Scottish-Icelandic collaboration and I would encourage you to look at Scotland as a key partner in your own hydrogen journey.</li> </ul>
Why	Your meeting builds on a succession of fruitful engagements with this Committee in recent months. It will allow you to strengthen Scotland's first-mover advantage in offering expertise on wind energy technologies, with a view to opening commercial opportunities further down the line. Iceland is at the start of its wind development journey, with current efforts focused on onshore projects. However, with a target to become net zero by 2040 and increased electricity demand, Iceland is now actively considering how offshore wind might also diversify their energy mix. Scotland has already been identified by both this Committee and a taskforce set up by the Icelandic government as a key case study and learning partner. You will be able to cement that status further and seek opportunities to expand the focus of this nascent partnership to include hydrogen. Given the nature of Iceland's reservations on wind energy projects (more at Annex A), you may want to underline Scotland's expertise on <b>planning</b> , <b>community benefits</b> and energy developments as opportunities for <b>rural development</b> .
Who	Full list and biographies available at Annex B. [REDACTED]
Media	@IcelandinUK @Althingi
Attached documents	Annex A – Core brief Annex B – Biographies

## CORE BRIEF

## Iceland – Energy profile and debate on wind energy

- Thanks to an abundance of geothermal and hydropower, 99% of energy produced in Iceland is already green. However, **electricity consumption continues to grow**.
- Wind energy potential remains underutilised. [REDACTED] The Icelandic parliament approved an energy framework (the third of its kind) at the end of the spring 2022 session, setting broad principles to produce more hydro and geothermal energy and, for the first time, wind energy.
- The current administration is looking at ways to simplify regulations guiding the development of onshore wind farms, with Scotland one of the case studies. A separate working group has been set up to look at offshore wind farms.
- [REDACTED]
- Iceland has seen strong opposition from fishermen and environmentalists around the perceived lack of research on the impact of (particularly floating) offshore wind turbines on wildlife. The travel industry has also voiced reservations around the visual impact of offshore wind projects.
- Due to Iceland's extensive coastline and availability of deep water sites, there are opportunities for Iceland and Scotland to build a practical partnership, which could also open future trade opportunities and promote Scotland's supply chain.

## Previous engagements with this Committee

- In January 2023, members of Iceland's Environment and Communications Committee paid a study visit to Scotland to learn more about our approach to wind energy (as well as national parks and rural transport). As part of their programme, they visited Burnhead Moss wind farm before holding a meeting with Mr Matheson and Mr Robertson.
- To build on that initial link and promote Scotland's expertise on wind energy further, in April 2023 a
  delegation from SG's Offshore Wind Directorate and Marine Scotland travelled to Reykjavik to
  address a conference organised by the British Embassy. A representative from SEE Renewables
  joined the Scottish contingent too. The event focused on the benefits of offshore wind for coastal
  communities and opportunities for regeneration in rural areas. Members of the committee were
  among the attendees.
- A recent reshuffle in the Parliamentary Committees' Chairs has seen the Left Greens (PM Jakobsdóttir's party) take over the chair of the Environment and Communications Committee. [REDACTED]

## <u> Hydrogen Strategy – Iceland</u>

- The 2030 Vision for Hydrogen strategy released by the Icelandic Government in 2020 was inspired by similar documents published by the Scottish Government.
- Due to the country's unlimited geothermal and hydropower resources, a technology as expensive as green hydrogen production has a better chance of being commercially viable in Iceland than anywhere else. However, disagreements persist on the value of greater investment in hydrogen technologies

## 24/7 Carbon-free Energy Compact

- The 24/7 Carbon-Free Energy Compact seeks to accelerate the decarbonisation of the world's electricity systems to ensure access to clean and affordable electricity for all.
- The compact comprises 138 signatories including companies, investors, organization and governments.
- Following Iceland, Scotland was the second country to sign up to the Compact on the occasion of Ms McAllan's visit to the New York Climate Week in September 2022.

## BIOGRAPHIES

## Bjarni Jónsson – Chair – Left Green Movement



Member of Althingi for the Northwest Constituency since 2021 Member of the Environment and Communications Committee since 2021 Member of the Foreign Affairs Committee Member of the EU-Iceland joint Parliamentary Committee Member of the Icelandic delegation to the Council of Europe Parliamentary Assembly

## Þorbjörg Sigríður Gunnlaugsdóttir – First Deputy Chair – Liberal Reform Party



Member of Althingi for the Reykjavík North Constituency since 2020 Member of the Environment and Communications Committee since 2021 Member of the Icelandic delegation to the West Nordic Council

## Vilhjálmur Árnason – Second Deputy Chair – Independence Party



Member of Althingi for the South Constituency since 2013 Member of the Environment and Communications Committee since 2013 Deputy Chair of the Independence Party's parliamentary group Member of the Budget Committee

## Andrés Ingi Jónsson – Pirate Party



Member of Althingi for the Reykjavík North Constituency since 2016 Member of the Environment and Communications Committee since 2021 Deputy Speaker of Althingi Member of the Icelandic delegation to the NATO Parliamentary Assembly

## Halla Signý Kristjánsdóttir – Progressive Party



Member of Althingi for the Northwest Constituency since 2017 Member of the Environment and Communications Committee since 2021 Member of the Constitutional and Supervisory Committee

#### OFFICIAL – SENSITIVE

## Orri Páll Jóhannsson – Left Green movement



Member of Althingi for the Reykjavík South Constituency since 2021 Member of the Environment and Communications Committee since 2021 Chair of the Left-Green Movement's parliamentary group Member of the Future Committee Member of the Icelandic delegation to the Nordic Council

## Njáll Trausti Friðbertsson – Indepedence Party



Member of Althingi for the Northeast Constituency since 2016 Member of the Environment and Communications Committee since 2021 Member of the Foreign Affairs Committee Member of the Future Committee Member of the EU-Iceland joint Parliamentary Committee Member of the Icelandic delegation to the NATO Parliamentary Assembly

## Þórunn Sveinbjarnardóttir – Social Democratic Alliance



Member of Althingi for the Reykjanes Constituency since 2021 Member of the Environmental and Communications Committee since 2022 Deputy chair of the parliamentary group of the Social Democratic Alliance Member of the Constitutional and Supervisory Committee

## **BRIEFING NOTE 4**

# Meeting with Halla Hrund Logadóttir – Director-General of Iceland's National Energy Authority Wednesday 18 October 2023, 16:30 – 17:15

Location	British Embassy, Laufásvegur 31, 101 Reykjavík
Points for discussion	<ul> <li>Interested in the role of your authority in informing long-term energy planning in Iceland. What are the main trends and challenges that the country is facing? I understand electricity demand continues to grow and there are concerns about increased competition between industry and households.</li> <li>Recent months have seen sustained engagement between Scotland and Iceland on wind energy. Do you think Iceland will see more substantial investments in on- and offshore wind projects in the near future?</li> <li>What additional expertise can Scotland offer to inform ongoing discussions?</li> <li>I understand your authority is involved in discussions concerning the role of hydrogen in Iceland's future energy mix.</li> <li>Interested in the Energy Fund managed by your authority. We would be happy to share details on similar funds that support the green transition in Scotland.</li> <li>What is the current status of the public and political debate in relation to international interconnectors in Iceland?</li> </ul>
Who	Halla Hrund Logadóttir – Director-General, National Energy Authority
	As well as serving as DG of the Energy Authority of Iceland (since 2021), she is a lecturer at the Harvard Kennedy School, where she also funded the Arctic Initiative, which seeks to address the challenges and opportunities created by climate change in the far North. Previously, Halla was Director of the Iceland School of Energy at Reykjavík University. She is the co-founder of Girls4Girls, a global mentorship program which empowers young women to take on public leadership roles. Halla will moderate the Ministerial breakout session that you will be joining at the Arctic Circle Assembly in the morning of Friday 20 October.
Why	Halla is well connected into the Icelandic government and is a key figure in shaping Iceland's long-term energy planning. While officials have regularly worked with her in recent years (including during COP26), this is the first Ministerial-level meeting.
	Similar to your engagement with the Committee earlier in the day, you will be able to position Scotland as a key partner in Iceland's renewable journey beyond geothermal and hydro. You will also be able to gather further intel on the Icelandic Government's energy priorities, including in relation to international partnerships and involvement in international networks.
	The National Energy Authority is responsible for granting operational licenses for wind farms.
Media	@hallaiceland
Attached documents	Annex A – Core brief

## CORE BRIEF

#### **Background**

Orkustofnun – Iceland's National Energy Authority (NEA) – is an agency of the Ministry of the Environment, Energy, and Climate. Its mission is that of producing analysis on sustainable energy production and usage to inform long-term planning. Concurrently, NEA oversees the implementation of energy laws, including in relation to licensing, transmission and distribution of electricity.

While, in line with Iceland's energy mix, much of the NEA's work concerns geothermal operations, wind energy projects are also within its licensing remit. NEA holds oversight responsibilities for electricity generation from wind energy and grants operational licenses for wind energy facilities with installed capacity over 1 MW.

#### Energy Fund

NEA manages Iceland's Energy Fund, which provides support for energy projects aimed at discontinuing the use of fossil fuels and transitioning to renewable and environmentally friendly sources. The fund covers one-third of the project costs. It operates as a competitive fund and the main evaluation criterion concerns the volume of oil (or other fossil fuels) that the proposed project would save – the so-called "price per litre". Financial support is not released until the project is completed. The fund is open to a variety of stakeholders, ranging from private citizens to municipalities and large companies.

#### North Atlantic Energy Network

In 2016, Iceland's NEA was among the contributors to a <u>report</u> exploring the feasibility of a "North Atlantic Energy Network" connecting national grids from Greenland to Norway. Representatives of the Shetland Islands Council took part in the project too.

The final report provided an overview of renewable energy production in each of the countries involved (Greenland, Iceland, Faroes, Scotland and Norway) but stopped short of providing recommendations. It did however identified the Viking Energy project in Shetland (now under construction) as a key component in strengthening the feasibility and desirability of a North Atlantic electrical network grid. Unsurprisingly, the study underlined to the considerable costs involved in building such interconnected grid.

SG officials have been involved in very early discussions about refreshing the report in light of more recent renewable energy developments both in Scotland (eg ScotWind) and elsewhere in the region.

Link	Approximate length [km]	Approximate depth [m]
Eastern Iceland – Faroes	450	500
Faroes – Shetland	350	1100 - 1200
Faroese – Scotland	400	1100 - 1200
Faroese – Norway	650	1500
Shetland – Norway	300	350
Iceland – Greenland	470	800
Iceland – Scotland	900	1100 - 1200
Iceland – UK	1200	1200
Shetland - Scotland	250	100

## **BRIEFING NOTE 5**

## Reception at British Ambassador Residence Wednesday 18 October 2023, 17:30 – 19:00

Location	British Ambassador's Residence, Laufásvegur 33, 101 Reykjavik
Key messages	<ul> <li>The Scottish Government is committed to supporting Scottish-Arctic collaboration to find joint solutions to shared issues, many of which stem from rurality and low population density.</li> <li>Our Arctic policy framework, published in 2019, is a prospectus for cooperation and knowledge exchange with Arctic partners.</li> <li>Scottish Ministers have attended the Arctic Circle Assembly every year it has been held since 2016 (it was cancelled in 2020).</li> <li>Scotland has a wealth of renewable energy expertise and potential. I am here to underline our appetite for even greater collaboration with Nordic, North Atlantic and Arctic partners around shared decarbonisation ambitions.</li> <li>We are the most northerly non-Arctic nation and share longstanding cultural, social and economic links with the Arctic region.</li> <li>Scotland has 11 members in the University of the Arctic. More than Sweden, Denmark and any other non-Arctic nation with the exception of China.</li> </ul>
Why	You have been invited to a reception held at the residence of the British Ambassador to welcome key UK-based participants in the Arctic Circle Assembly. You will be able to promote Scotland's distinctive Arctic profile and underline the wealth of relevant expertise that we can contribute to Arctic dialogue.
Who	<ul> <li>Other expected attendees include</li> <li>Members of the UK Parliament's APPG for the Polar Regions: James Gray (Conservatives, North Wiltshire), Anna McMorrin (Labour, Cardiff North), Barry Gardiner (Labour, Brent North).</li> <li>Delegation from Orkney Islands Council led by Cllr James Stockan.</li> <li>Scottish Parliament delegation, Monica Lennon MSP and Mark Ruskell MSP</li> <li>FCDO officials and UK-based Arctic researchers</li> </ul>

#### BRIEFING NOTE 6 Meeting with H.E. Mariam Almheiri, Minister of Climate Change and Environment of the UAE Thursday 19 October 2023, 09:50 – 10:20

Location	Nes room, Harpa fourth floor
Points for discussion	<ul> <li>Interested in how preparations for COP28 are progressing.</li> <li>We welcome the UAE's commitment to an inclusive "COP for all". Voices from all backgrounds must be heard and acknowledged.</li> <li>As European co-chair of the Under 2 Coalition and building on our work at previous COP conferences, SG will seek to increase ambition and delivery towards net zero among non-Party Governments, States and Regions.</li> <li>It is our hope COP28 will build momentum towards increased global action on and urgent funding for loss and damage.</li> <li>As discussion held during the Arctic Circle Abu Dhabi Forum illustrated, climate change is a truly global challenge. I am interested in your government's work, together with the Arctic Circle Secretariat, on the Third Pole process. What are the key objectives and milestones? How do you expect it to feature during COP28?</li> <li>My colleague Neil Gray will visit the UEA on 25-26 October. I hope your diary will allow for a meeting during the Cabinet Secretary's visit.</li> </ul>
Why	An opportunity to raise awareness of the Scottish Government plans and objectives for COP28 and find out more about the preparations for the summit (30 November – 12 December 2023). The UAE is a priority market within A Trading Nation, with specific sectoral opportunities in energy transition, digital health and space. There are also significant inward investment opportunities for Scotland. Working in conjunction with the Arctic Circle Secretariat, the UAE are leading on the so-called "Third Pole process", which seek to replicate the Arctic model of cooperation to increase climate action in the Third Pole region – a term used to refer to the region around the Himalaya, including India, China, Pakistan, Afghanistan, Nepal, Bhutan, Bangladesh, Myanmar, and several countries in Central Asia. Given our excellent links with the Arctic Circle and growing collaboration with the UAE, there may be scope for Scotland to offer expertise, including on green energy.
Who	Mariam Almheiri – Minister of Climate Change and Environment, UAE
	Ms Almheiri leads the Ministry's mission of spearheading the UAE's drive to mitigate and adapt to the impacts of climate change, protect the country's ecosystems, and enhance its food and water security. Prior to her current role she was Minister of State for Food and Water Security. She previously held the post of Minister of State for Food Security. She has a degree in Mechanical Engineering from the University of Aachen (Germany).
Attached documents	Annex A – Core brief

#### [REDACTED]

#### UAE priorities for COP28

• The UAE indicate they will prioritise mitigation, achieving a global goal on adaptation, setting out the details of the loss and damage finance facility, and driving towards a global goal on climate finance through mobilising the (as yet unmet) commitment of providing US\$100 billion per year.

#### Loss and damage

- We are proud to be the first global north country to commit funding for Loss and Damage.
- We are already using our initial £2m to support communities to address losses and damages in Asia, Africa, and the Pacific Islands; as well as funding research on needs assessments and case studies as part of our commitment to build evidence around how to most effectively address loss and damage.
- In line with our COP27 commitment, FM announced at NYCW a new £5m programme on noneconomic loss and damage; and a new £1m programme delivered through the Humanitarian Emergency Fund.
- We are making the case internationally on the practical action needed to support communities facing climate-induced loss and damage. The Scottish Government welcomed the breakthrough agreement at COP27 on funding for Loss and Damage. Quick decisions to operationalise the fund are now needed to ensure that funds reach those communities who most need it most.

#### Trade and Investment taskforce

- Following Ministerial engagement a joint taskforce with key UAE economic officials was set up to take forward a series of actions focusing on delivering greater trade and investment activity.
- This taskforce has successfully facilitated a number of Scottish company introductions into the UAE and has landed significant inward investment interest renewables entities such as Masdar.

#### **Recent engagement with UAE**

- December 2022. UAE State Minister for Foreign Trade HE Dr Thani bin Ahmed Al Zeyoudi (HE Dr Thani) visited Scotland with a senior business delegation one month on from our meeting in the UAE and Scotland was the only part of the UK he chose to visit.
- November 2022. Minister BTTE attended ADIPEC and undertook a series of engagements focused on Net Zero, Digital Health and Space.
- July 2022: Scottish Government and Scottish Enterprise hosted a delegation from UAE Sovereign Wealth Fund Investment Company Mubadala focused on opportunities within net zero, life sciences and infrastructure.
- Scottish companies showcased as part of our Expo 2020 Dubai events and associated trade missions have projected revenue forecasts in excess of £89m as a direct result of their participation.
- Around 12 companies across Scotland successfully secured contracts worth £8.1m in the preevent design and build phases of Expo 2020 Dubai.

#### OFFICIAL - SENSITIVE

## BRIEFING NOTE 7 Panel discussion: How can we safeguard and develop our Nordic tradition for democracy and active user participation?

Thursday 19 October 2023, 11:20 – 11:50

Location	Hilton Reykjavik Nordica, Suðurlandsbraut 2, 108 Reykjavík
Key messages	<ul> <li>Communities are at the heart of Scotland's renewable energy ambitions and community energy has the potential to play a pivotal role in a just transition.</li> <li>We encourage developers to offer community benefit and shared ownership opportunities as standard on all renewable energy projects.</li> <li>At the end of last year (2022) there was an estimated 908 MW of community and locally owned renewable energy capacity in Scotland.</li> <li>Our National Planning Framework (NPF4) sets out that the potential impact on communities must be assessed through the planning process.</li> </ul>
What	<ul> <li>A 30-minute panel discussion on community engagement in the development and delivery of green energy projects in the Nordic region. There will be <b>no opening speeches</b> but you will be asked a <b>pre-agreed question</b>:</li> <li>What steps is the Scottish Government taking to ensure communities and citizens embrace new green energy infrastructure?</li> </ul>
	You will be <b>seated</b> . The session will be <b>moderated by Daria Shapovalova</b> (University of Aberdeen).
	<ul> <li>The rest of the session will be structured along the following topics:</li> <li>There is a potential conflict between new green energy infrastructure and citizens' willingness to accept it. When do we succeed in reconciling this?</li> <li>What engages us, as citizens: financial reward, ownership, being included, being listened to, being taken seriously?</li> <li>Why is it often so that new green energy infrastructure is perceived as intruding and unattractive? Can we change that? Could this infrastructure one day be perceived as a pleasant, visual expression of a greener future?</li> </ul>
	The session is part of a half-day conference titled " <i>Energy Security and Citizens</i> ". It is organised by Nordic Energy Research under the auspices of Iceland's presidency of the Nordic Council of Ministers.
	You will arrive at the venue during a coffee break and are invited to sit in the audience during a few short presentations that will inform your panel discussion. Following your session and short concluding remarks, you are invited to join a <b>buffet lunch</b> for speakers and key attendees.
Why	An opportunity to showcase Scottish best practices in relation to community engagement in and benefit from renewable energy projects.
Who	Full list and biographies available at Annex A
Media	@NEF_Oslo @GreenlandMFA @KAO_KD @nordenen @daria_arctic
Attached documents	Annex A – Biographies and background info Annex B – Additional top lines
	Aide memoire for pre-agreed question attached separately

#### OFFICIAL - SENSITIVE

## **BIOGRAPHIES AND BACKGROUND INFO**

ANNEX A

## Kalistat Lund – Minister for Agriculture, Self-Sufficiency, Energy and Environment, Government of Greenland



Mr Lund is a strong advocate for green energy solutions and climate change mitigation. Before entering parliament, he was Mayor of Narsaq Municipality. Besides his activities in national and local politics, he has more than 30 years of experience as a helicopter pilot in Greenland.

## Dr Daria Shapovalova – Director, Aberdeen University Centre for Energy Law [MODERATOR]



Daria is a senior lecturer in energy law at Aberdeen University and a chair of the Scottish Arctic Network (ScAN). She has published extensively on Arctic governance, regulation of petroleum production, and climate change law. Her current research is on climate change and energy law with a focus on just transition. She received an Arctic Connections Fund project in 2021-22 on just transition and attended the Arctic Circle Assembly in 2022. She is from Ukraine.

## Kjell-Arne Ottoson – Chairman, Committee for Growth and Development in the Nordic Region, Nordic Council



Kjell-Arne is a member of the Swedish Parliament (KD) and a member of the Nordic Council's Swedish delegation. He is the vice chairman for the Committee on the Environment and Agriculture and is a former primary school teacher.

## Nordic Energy Research (NER)

Established in 1999 and headquartered in Oslo, NER is an agency of the Nordic Council of Ministers (NCM). It awards financial support for energy research that advances the Nordic region's objective of reducing emissions and stimulating green economic growth. It works closely with national energy authorities and Ministries, often serving as secretariat for intergovernmental working groups. NER's key areas of focus include energy markets, smart energy systems and green transport.

In May 2023, SG and NER co-organised a study visit to Shetland for members of the NER-convened Sustainable Islands Network, consisting of approximately 30 representatives from across the Nordic Region and serving as a forum for multilateral learning on green energy solutions for islands communities. As a result of the event, the network expanded to include Scottish participants. Cabinet Secretary Gougeon opened the conference and met NER's CEO Klaus Skytte in the margins of the event.

## Sensitivity: Indigenous opposition to wind farms

In recent years, Indigenous communities in both the European and North American Arctic have voiced their opposition to the construction of wind farms on their land, primarily due to concerns about impacts on traditional economic activities such as reindeer herding. Ongoing protests are underway in Norway, where the supreme court ruled that two wind farms violated Sami rights under international conventions. The turbines remain in operation today.

## ADDITIONAL TOP LINES

- Communities are at the heart of our renewable energy ambitions and community energy has the potential to play a pivotal role in a just transition.
- That is why we continue to invest in our Community and Renewable Energy Scheme (CARES), which has offered advice to over 900 organisations and supported over 680 community and locally owned renewable projects throughout Scotland, offering funding of over £60 million to date.
- CARES has also supported progress towards our target of to deliver 2 GW of community and locally owned renewable energy by 2030, which we are almost halfway towards achieving.
- Despite the powers to mandate community benefits being reserved to the UK Government, we continue to encourage developers to offer community benefits as standard on all new renewable energy projects, including repowering and extensions to existing projects.

## <u>CARES</u>

- CARES provides advice and support including funding to communities across Scotland, looking to develop renewable energy, heat decarbonisation and energy efficiency projects.
- CARES is delivered by Local Energy Scotland and the current contract commenced 1 April 2021 and will run for a period of 4 years. It gives priority to decarbonisation as the driver for community-led action.
- The *Community Buildings*' fund supports community organisations to decarbonise their buildings and reduce energy bills.
- The 'Off Electricity Grid Communities Fund', is providing a package of support to some of Scotland's more remote and rural off grid communities to help them upgrade their energy systems and decarbonise their energy supplies, with the aim of making them more resilient and sustainable in the future.
- The Community Heat Development Programme works with community organisations and groups of householders to help develop ideas for locally generated, low and zero carbon heat projects.
- CARES also provides technical advice to assist community organisations in project development through the use of a framework of technical consultants. It can provide funding to complete other related activities, such as community engagement activity and other project development costs for new local energy projects.

## Community and Locally Owned Renewable Energy

- The Scottish Government has progressed 45% towards their 2030 target of having 2 GW of operational renewable energy capacity in community and local ownership.
- At the end of last year (2022) there was an estimated 908 MW of community and locally owned renewable energy capacity from 26,290 installations estimated to produce 1,933 GWh of renewable energy annually.
- We encourage developers to offer community benefit and shared ownership opportunities as standard on all renewable energy projects including repowering and extensions to existing projects.

## **Onshore Wind Sector Deal**

- The Onshore Wind Sector Deal represents a shared commitment between Government and industry to deliver upon our collective ambitions while growing a key sector in a way that aligns with the principles of a Just Transition.
- One of the key commitments in the deal is for developers to meet or exceed the principles set out in the Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments. This goes further than any other commitment made by industry to date.
- Industry has also committed to engage with communities from the earliest opportunity, ensuring community benefit agreements becoming binding at the point of Financial Investment Decision, and ensuring community benefits and shared ownership agreements are maintained as a condition of sale or transfer of a wind farm.
- The Sector Deal will be an ongoing commitment and we hope it acts as a catalyst from which we will see more meaningful benefits flow to communities.

#### BRIEFING NOTE 8 Meeting with Karen Ellemann – Secretary General, Nordic Council of Ministers Thursday 19 October 2023, 12:45 – 13:15

Location	Hilton Reykjavik Nordica, Suðurlandsbraut 2, 108 Reykjavík
Points for discussion	<ul> <li>Interested in your reflections on Norden 2030 and where the Nordic region sees itself heading. What are the key challenges facing the region?</li> <li>The Scottish Government desires to increase cooperation with the Nordic Council of Ministers. How can we formalise our relationship? Would there be appetite for a strategic discussion on shared priorities?</li> <li>One of Scotland's key offers is around energy, especially offshore wind and hydrogen. Do you see opportunities to develop our collaboration in these areas specifically?</li> <li>As I will say during our Ministerial session at the Assembly tomorrow, the decarbonisation challenges that we face require a joint regional approach in both the North Sea and North Atlantic regions.</li> <li>Pleased to see growing collaboration with Nordic Energy Research and other agencies of the Nordic Council of Ministers.</li> </ul>
Who	Karen Elleman – Secretary General of the Nordic Council of MinistersShe has served as Secretary General since January 2023. Previously, she was a member of the Danish Parliament (2007- 2022) for the Venstre party (centre-right) as well as a member of the Nordic Council. She held several ministerial posts, 
Why	This meeting will allow you to underline SG's continued appetite for greater and more regular collaboration with the NCM and its agencies. You will be able to provide an overview of recent NCM initiatives that SG has been involved in – especially those co-organised with Nordic Energy Research – and reflect on key areas for cooperation going forward, including against the background of the Nordic "Vision 2030". [REDACTED] You may also want to query the Secretary General on the recent Norden 2030 conference, where the Nordic Council and Nordic Council of Ministers met to discuss the strategic trajectory of the Nordic region.
Media	@EllemannKaren @nordenen
Attached documents	Annex A – Core brief Annex B – Nordic Council (of Ministers) – Core Brief

## CORE BRIEF

## Norden 2030

- At the start of October 2023, the Nordic Council of Ministers and Nordic Council undertook a joint stock take against their 2030 Strategy to be the most integrated, most socially and environmentally sustainable and most competitive region globally.
- Key outcomes include:
  - A sense that 'being a cohesive, pragmatic Nordic bloc' is no longer enough to guarantee Nordic prosperity in an increasingly 'muddy-lateral' world.
  - The distance between strategy and reality was apparent across a number of policy areas, with strong words on net zero and domestic failure to tackle public resistance to costs leading to a global credibility gap, the failure to lay a common claim to being good at technology by actually doing it, and the lack of democratic inclusion.
  - Deglobalisation will hurt the Nordics more than most.
  - Nordic politicians will have to face up to the reality that <u>lower carbon needs to cost more for</u> <u>consumers</u>: this was something placed in the 'too difficult' box during the conference.
  - It was noted that all the Nordics will now align inside NATO, but without any hints at how that might change strategy or bring structural change inside the NCM itself as a result.

#### **Ongoing discussions with NCM**

- Officials continue to explore how Scotland can be more regularily involved in the projects and initatives of the NCM, both formally and informally, given similar challanges and priorities.
- [REDACTED]

#### **Recent collaboration**

- In 2019, all Ministers for Nordic Cooperation convened in Edinburgh to review priorities for collaboration and discuss opportunities for greater engagement with western neighbours.
- In 2021, the Scottish Government and the Nordic Council of Ministers came together to co-fund a hackathon event focused on the impacts of Covid-19 on rural tourism and rural healthcare.
- At COP26, the Nordic pavilion hosted a rich programme of events featuring Scottish Ministers and experts, with themes ranging from peatland restoration to climate assemblies and carbon capture.
- Building on one of those sessions the Scottish Government and Nordic Energy Research (NER) went on to co-organise a conference on sustainable islands held in Shetland in May 2023 with participation from across the Nordic region.
- Your participation in today's conference and the high-profile breakout session at the Arctic Circle Assembly tomorrow, both co-organised by SG and NER.

## NORDIC COUNCIL (OF MINISTERS) - CORE BRIEF

All five Nordic countries – Denmark, Finland, Iceland, Norway and Sweden – as well as three autonomous territories – Åland, the Faroe Islands and Greenland – participate in Nordic cooperation. The main official bodies of Nordic cooperation are the Nordic Council founded in 1952, and the Nordic Council of Ministers founded in 1971.

## Nordic Council of Ministers

- The Nordic Council of Ministers (NCM) is the official body for **inter-governmental** cooperation in the Nordic Region working jointly to deliver the Nordic Prime Ministers' vision of the Nordics as the most sustainable and integrated region in the world by 2030.
- Members include Denmark, Finland, Iceland, Norway and Sweden. Over the years, devolved governments from Greenland, the Faroe Islands and Åland have established greater representation and stronger positions in the NCM and now enjoy practically the same representation as the other members.
- Overall responsibility for co-operation lies with the Prime Ministers but in practice it is delegated to the Ministers for Nordic co-operation. There are currently 11 constellations of Councils of Ministers for specific policy areas (e.g. Fisheries, Gender Equality, Culture, Environment, Finance).
- The Presidency of the NCM is held for one year and rotates between all five Nordic countries. <u>Iceland holds the Presidency of NCM in 2023 with its programme revolving around green transition</u>, <u>gender equalities</u>, <u>culture and strengthening the labour market</u>.

## Nordic Council

- The Nordic Council (NC) is the official body for formal inter-parliamentary co-operation.
- Each Nordic parliament sends a delegation to the NC. The delegations' responsibility is to make sure that decision made in the Council are implemented at a national level.
- The Ordinary Session is held every late in October/November. Other sessions are held in conjunction with the Council's committee meetings.
- The Nordic Council's international strategy sets out an explicit ambition to work more closely with Scotland, as well as with the wider UK.
- The Scottish Parliament is already very well engaged, and preparing to attend its annual Nordic Council plenary session as an official observer in autumn 2023.

## Neighbours to the West

The NCM's Neighbours to the West programme supports collaboration between the Nordics and countries including Canada, USA, UK and Ireland. The focus of the programme – and of the cooperation it supports – is on themes including maritime issues, climate and energy, research and innovation, culture and youth.

The budget allocated to the Neighbours to the West programme was recently increased, including by rerouting funding that was previously dedicated to collaboration with Russia.

#### BRIEFING NOTE 9 Plenary panel discussion with Environment Ministers of Sweden, Iceland and Greenland Thursday 19 October, 14:20 – 15:00

Location	Silfurberg Hall, Harpa Second level
Key messages	<ul> <li>We face twin reinforcing crises – a decline in biodiversity will make the climate crisis worse and a changing climate will increase the rate of biodiversity loss.</li> <li>No nation has all the answers, or the means, to respond to the scale of these crises alone. We need to work together, pooling expertise and resources.</li> <li>The accelerating rate at which the Arctic is melting is a dramatic illustration of the urgency required in our fight against climate change.</li> <li>Scotland has ambitious targets domestically and seeks to drive meaningful change internationally.</li> <li>As European co-chair of the Under 2 Coalition we seek to increase ambition and delivery towards net zero among non-Party Governments, States and Regions.</li> <li>The Scotlish Government-led Edinburgh Process was acknowledged in the Global Biodiversity Framework adopted at COP15 in Montreal in 2022. The Framework highlighted the importance of subnational actors in delivering for biodiversity.</li> <li>Scotland was the first country to declare a climate emergency in 2019, and the first Global North country to commit funds to loss and damage.</li> <li>It is our hope COP28 will build momentum towards increased global action on and urgent funding for loss and damage.</li> </ul>
What	<ul> <li>A 40-minute panel discussion with other Ministers responsible for Environment and Climate policies. It will be moderated by Olafur Grimsson, Chairman of the Arctic Circle. There will be no speeches – the moderator will go straight into Q&amp;As and will take questions from the audience.</li> <li>We have suggested a question to the moderator but there is no guarantee he will use it:</li> <li>What role do subnational governments have in galvanising global ambition and tangible action on climate change?</li> <li>The session will be recorded.</li> <li>Ministers will be asked to reflect on climate change and what it will mean for the future of their countries. COP28 will be one of the topics. However, the focus will be on climate action worldwide and the tangible steps required to tackle global warming.</li> </ul>
Why	You will be able showcase Scotland's international leadership on tackling climate change and biodiversity loss, underlining how – even without being an official Party at COP negotiations – we are driving meaningful action and seeking to increase ambition globally while leading by example domestically.
Who	Full list and biographies available at Annex A.
Attached documents	Annex A – Biographies Annex B – Biodiversity top lines Annex C – Other key lines Aide memoire for suggested question attached separately

## BIOGRAPHIES

## ANNEX A

## Romina Pourmokhtari – Environment Minister of Sweden



Ms Pourmokhtari is a member of the Liberal Party who's areas of responsibility include Environment and Climate. Her previous roles include Chair of the Liberal Youth Organisation 2019-2022. A former board member of the Swedish Association for Sexuality Education, Secretary to the Commissioner of the Stockholm region and Swedish representative of the European Youth Forum.

## Gudlaugur Thór Thórdarson – Environment Minister of Iceland



Gudlaugur Thór Thórdarson took office as Minister of the Environment, Energy and Climate in November 2021. He was Chairman of the Parliamentary group of the Independence Party 2016-2017. His Ministerial career includes positions as the Minister for Foreign Affairs and International Development Cooperation (2019-2021), Minister for Foreign Affairs and External Trade (2017–2019) and Minister of Health and Social Security (2007-2009).

## Kalistat Lund – Environment Minister of Greenland



Mr Lund is a strong advocate for green energy solutions and climate change mitigation. Before entering parliament, he was Mayor of Narsaq Municipality. Besides his activities in national and local politics, he has more than 30 years of experience as a helicopter pilot in Greenland.

## HE Ólafur Ragnar Grímsson – Chairman of the Arctic Circle [MODERATOR]



Born in Ísafjörður (north-west Iceland) in 1943, he gained a PhD in Political Science from the University of Manchester. For several years, he was a member of the Parliamentary Assembly of the Council of Europe.

He served as President of Iceland from 1996-2016. He founded the Arctic Circle Secretariat in 2013.

## **BIODIVERSITY TOP LINES**

- Biodiversity is critical to everybody's lives for the production of food, clean water, natural materials and medicines and addressing climate change but both globally and in Scotland, it is in crisis, with declines in Scotland sustained over decades.
- We recognise the importance of biodiversity and the urgent need for action at all levels to tackle the twin crises of biodiversity loss and climate change, to ensure a nature-positive, net zero world.
- Following our successful leadership of the Edinburgh Process, we remain committed to playing our part internationally.
- The Edinburgh Declaration ensured that the voices of subnational governments were heard during COP15.
- I am delighted that a renewed Plan of Action on subnational governments was also agreed alongside the new Global Biodiversity Framework.
- We are continuing this legacy by working closely with key international partners through our membership of the CBD's Advisory Committee on Subnational Governments, the High Ambition Coalition for 30x30's Subnational Taskforce and the RegionsWithNature platform.
- Scotland has seen a decline in its biodiversity. Along with other industrialised countries, we have one of the lowest biodiversity intactness indexes.
- Our new strategy will deliver the transformative change needed to protect and restore terrestrial, freshwater and marine biodiversity in Scotland.
- Our ambitious new biodiversity strategy sets out goals to halt nature loss by 2030 and reverse it by 2045, and a long-term vision of what our natural environment needs to look like in 2045 in order to reverse biodiversity decline.
- We have committed to introduce a Natural Environment Bill. The Bill will put in place key legislative changes to restore and protect nature, including enabling targets for nature restoration, and a framework for setting, monitoring, and reporting on those targets.
- We are committed to expanding and improving areas managed for nature, including protected areas, with an ambitious commitment to protect 30% of our land for nature by 2030.
- We have made significant funding commitments to protect and restore biodiversity.
- Our Nature Restoration Fund is a key lever in delivering our Biodiversity Strategy, funding largescale, multi-year, multi-partner projects which drive nature recovery and address climate change
- We are investing in nature-based solutions, like peatland restoration and tree planting, to tackle climate change and biodiversity loss and create green jobs.

## Edinburgh Process

In 2019, the Scottish Government was invited by the Convention on Biological Diversity to lead a consultation with sub-national bodies on their role in addressing the biodiversity crisis. This culminated in the Edinburgh Declaration which called for a dedicated decision and a renewed Plan of Action on Subnational Governments. Over 300 sub-national governments signed the Declaration and it had a high profile at COP15 in 2022, where the final agreement of the Kunming-Montreal global biodiversity framework incorporated the text in the Declaration and adopted the renewed Plan of Action on Subnational Governments. We have since remained an active member of key international networks which are crucial to support and enhance our domestic work to mitigate the effects of biodiversity loss, and we will continue work to raise ambition for biodiversity internationally.

## **Biodiversity Strategy**

- Our ambitious new biodiversity strategy sets out goals to halt nature loss by 2030 and reverse it by 2045, and a long-term vision of what our natural environment needs to look like in 2045 in order to reverse biodiversity decline.
- We will need high level strategic leadership, alongside responsible public and private investment to achieve our outcomes, and an inclusive whole-of-society approach which engages communities, business and decision makers alike.
- We all depend on biodiversity and so the biodiversity crisis affects everyone. It provides our food, helps prevent flooding and soil erosion, purifies our water and contributes to our wellbeing, by providing recreation and a sense of place. The strategy will be supported by a new Natural Environment Bill which will provide a framework for nature recovery targets.

## Under 2 Coalition

- The Under 2 Coalition is the largest global network of states, regions, provinces and other subnational governments committed to achieving net zero emissions by 2050 at the latest.
- Scotland is serving its second term as European co-chair.
- [REDACTED]
- 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.
- Within the Under 2 Coalition, the Scottish Government leads the Net Zero Futures Policy Forum and the Just Transition Taskforce to ensure that Coalition members have the practical support they require to deliver their climate targets.

## European co-chair

- For the 2022-24 term, the other Co-Chairs are California, (North America); São Paulo, Brazil (Latin America); KwaZulu Natal, South Africa (Africa); and Chungnam Province (Asia-Pacific).
- The EU regions represent 64 million citizens with a combined GDP of over 2.5 trillion euros.
- The Coalition has been named one of the international partnerships with the highest potential for emissions reduction – 3.3-3.9GtCO2e/year in 2030 – more than the current annual emissions of the EU.

## Loss and damage

- We are proud to be the first global north country to commit funding for Loss and Damage.
- We are already using our initial £2m to support communities to address losses and damages in Asia, Africa, and the Pacific Islands; as well as funding research on needs assessments and case studies as part of our commitment to build evidence around how to most effectively address loss and damage.
- In line with our COP27 commitment, FM announced at NYCW a new £5m programme on noneconomic loss and damage; and a new £1m programme delivered through the Humanitarian Emergency Fund.
- We are making the case internationally on the practical action needed to support communities facing climate-induced loss and damage. The Scottish Government welcomed the breakthrough agreement at COP27 on funding for Loss and Damage. Quick decisions to operationalise the fund are now needed to ensure that funds reach those communities who most need it most.

## [REDACTED]

Loss and Damage (upper case) refers to UNFCCC decisions and process; loss and damage (lower case) is used as the proper nun for the wider phenomenon and losses and damages (pluralised) is used to for what has been experienced and is happening in terms of observed impacts and projected risks from climate change

## BACKGROUND ON £5 MILLION NON-ECONOMIC LOSS AND DAMAGE PROGRAMME

• The programme aims to enable and support communities facing extreme climate-induced Non Economic Loss and Damage (NELD) to identify and prioritise the actions that will best address it. The programme will address NELD in a gender-responsive way, ensuring women and girls are given a strong voice throughout all stages of programme design.

#### Programme design

• The funding will address non-economic loss and damage, which refers to less visible or quantifiable losses as a result of climate breakdown. This can include the loss of family, community, physical and mental health and well-being, sacred sites, and culture. [These may

#### OFFICIAL – SENSITIVE

include, for example, activities to address climate-forced displacement and forced migration, and the myriad of associated losses: of family life, community, and culture; activities to address increases in gender-based violence, domestic abuse, and child marriage due to incessant climate stress. Other losses that communities may prioritise include loss of sites of cultural and/or spiritual importance, loss of language, and traditions.]

#### Call to action

- The programme is open to accepting funds from other governments, NGOs, and the private sector.
- We are pleased to announce that the Open Society Foundation (OSF) have already provided \$700,000 of additional funding for the programme. OSF funding will focus on to fostering youth-led community projects
- We want to encourage other governments, NGO's and the private sector to consider contributing to the fund so that even more support reaches vulnerable communities to address non-economic loss and damage.

[REDACTED]

#### BRIEFING NOTE 10 Meeting with Romina Pourmokhtari – Swedish Minister for Climate and the Environment Thursday 19 October 2023, 16:15 – 16:45

Location	Studio 2+3 meeting rooms, Edition Hotel, Austurbakki 2, 101 Reykjavik
Points for discussion	<ul> <li>Condolences on the killing of two Swedish nationals in Brussels.</li> <li>Pleased to hear your thoughts on climate action and COP28 during our plenary session earlier today.</li> </ul>
	<ul> <li>Managing Net Zero</li> <li>There is an emerging conflict between net zero ambitions and the costs to individuals: how is Sweden handling this?</li> <li>How do you see this playing out longer term?</li> <li>What do the politics around it look like? (note: the Swedish government recently lowered fuel taxes, with PM Kristersson defending this measure as 'necessary to help hard-pressed household economies')</li> </ul>
	<ul> <li>Collaboration on forestry and peatlands</li> <li>What are your priorities for decarbonising the Swedish forestry sector?</li> <li>What are some of the big challenges you are facing?</li> <li>I would be interested to explore how we might formalise collaboration around: <ul> <li>The resilience of our forestry systems</li> <li>Peatland and Wetland restoration</li> <li>Improvements in standards, monitoring and adopting new technologies</li> <li>The use of airborne laser scanning in peatland and forestry work</li> </ul> </li> </ul>
Who	Romina Pourmokhtari – Swedish Minister for Climate and the Environment
	Ms Pourmokhtari is a member of the Liberal Party. This is her first Ministerial post. Her previous roles include Chair of the Liberal Youth Organisation (2019-2022). She is a former board member of the Swedish Association for Sexuality Education, Secretary to the Commissioner of the Stockholm region and Swedish representative to the European Youth Forum.
Why	This is the first bilateral between a Scottish Government and Swedish Government Minister in recent years. We should impress upon Ms Pourmokhtari Scotland's position as a helpful and like-minded partner on environment issues, [REDACTED]
	Reflecting on the plenary session you and Ms Pourmokhtari will share earlier in the day, you may want to seek an update on Sweden's climate and environment priorities (noting sensitivities at Annex A) as well as seek the Minister's assistance in progressing some early bilateral collaboration on forestry and peatland.
	We should be open about our interest in visiting Minister Porumokhtari in Sweden in the future.
Media	@RPourmokhtari @Miljodep
Attached documents	Annex A – Core brief including sensitivities

# CORE BRIEF

#### **Sensitivities**

- The general election held in September 2022 saw the rise of the **far-right** Sweden Democrats. Despite securing the second highest number of seats, the SD has remained outside the governing coalition, but exercises political and policy sway via the '**Tidö Agreement**', which requires Swedish Government policies across a number of areas (including climate and the environment) to have the approval of the SD.
- [REDACTED]
- The Swedish government is seeking to amend legislation to increase the number of **nuclear reactors** that can be operational in the country. Following the 2022 September election, a majority in Parliament is in favour of building new reactors.

### Peatland restoration – key lines

- Scottish Government has committed £250 million over 10 years to restoring 250,000 hectares of degraded peatlands by 2030. Through supporting good, green jobs in the rural economy, this investment will also play a part in Scotland's Just Transition to net zero by 2045.
- The First Minister's policy prospectus 'New Leadership A Fresh Start', published in April 2023, promises to deliver up to 110,000 hectares of restored peatland by 2026.
- The 10,700 ha target for 2023-24 represents a 40% increase over the 7,500 ha restored last year (22-23), which itself was a 35% increase over the 5,400 ha restored in 21-22.
- This growth rate in restoration is welcome and promising, but we are still behind the pace required to meet our climate change plan commitment on emissions from degraded peatland.
- We are working hard with our delivery partners through the Peatland Action partnership to tackle the many barriers to upscaling peatland restoration in this relatively young sector.

#### Peatland Management and Protection

- Our public consultation on "Ending the Sale of Peat in Scotland" closed in May 2023. We were pleased to receive over 500 responses which we are now reviewing to inform the scope and timing of the ban.
- Although the focus of our consultation is on the use of peat in horticulture, we are also considering other uses of peat that drive its commercial extraction, taking a proportionate approach to banning the sale of peat with realistic, yet ambitious, timescales.
- The Wildlife Management and Muirburn (Scotland) Bill ("the Bill") was introduced in March 2023 and sets out the conditions under which muirburn is permitted, with tighter restrictions where muirburn is carried out on peatlands.
- We remain committed to aligning with, or even exceeding, EU laws and standards where we can. We have agreed, in principle, to take forward the new Good Agricultural and Environmental Condition (GAECs 2) covering the protection of wetlands and peatland, weaving the care of these important habitats right through future rural support.

#### Airborne Laser Scanning (LiDAR)

- Scotland's Chief Scientific Adviser for Environment, Natural Resources and Agriculture has proposed airborne laser scanning (lidar) across Scotland to characterise its environment and its changes over coming decades. A business case is being finalised as present.
- Opportunities for lidar include tracking the status of habitats, forests and peatland at very high resolutions. Lidar data could monitor, and therefore support policy for, sustainable forest management, peatland restoration, biodiversity enhancement and natural capital.
- Sweden has a long history of collecting and using lidar data to support land management. Interactions with relevant Swedish agencies and scientists could support more effective actions with lidar in Scotland.

### Forestry links with Sweden

- Ms McAllan visited Stockholm in March 2023 (in her previous role as Minister for Environment and Land Reform) and met the Swedish Forestry Agency and officials from the Ministry for Rural Affairs and Infrastructure.
- These engagements highlighted similarities, shared priorities, and opportunities for dialogue between Scotland and Sweden around forestry policies. Key objectives for this partnership would include:
  - Improving Scottish Forestry's competencies in international engagement;
  - Regain some access to friendly EU intelligence concerning forestry developments;
  - > Allowing SG Nordic Office to showcase existing work and new partnerships as they develop;
  - > Securing future ministerial bilaterals to announce policy cooperation and implementation.
- The following 9 topics have been agreed with Scottish Forestry and the Office of the Chief Scientific Advisor for Environment, Natural Resources and Agriculture as key areas of current and potential engagement with Swedish counterparts:

Area	Ambition for working together
Resilience of forestry	Understanding and managing tipping points in climate and
systems	biodiversity, including species diversity relationships to planting
	cycles and forest management approaches.
Improvements in	Using innovative remote sensing technologies (see below,
standards and	Lidar) for forest and peatland monitoring and enhanced
monitoring	standards across the industry. Shared understanding on future
-	direction of, and drivers of, sustainable forest management.
Decarbonisation and	Managing commercial / economic interests and the need to
managing the balance	decarbonise other sectors (principally construction);
between carbon	understanding which areas and species are most useful for
capture and timber	which purpose, and how to promote this.
supply	
Public attitudes to	How to build support for the balance struck above in the wider
forestry	population and understand the value that the public and
	communities place on forestry.
Stakeholder and	Ensuring that rural communities impacted by changes in policy
community	and land use are engaged and on-board, and that rural
engagement	communities are supported to thrive.
Airborne Lidar for	Scientific collaboration and exchange on the best analytical
natural asset	uses of Lidar for forest & peatland remote sensing.
management	
Arctic and upland	Monitoring and managing climate change impacts on fragile
landscapes under	upland/arctic environments, including via engagement with the
climate change	European Space Agency remote sensing capability.
Peatland and wetland	Effecting mapping of landscape-scale projects, better decisions
restoration	on purpose/outcomes of restored areas (climate, biodiversity,
	water management etc), standardised techniques for
	restoration, including tool and machine development,
	understanding and developing the supply chain of skills and
	tools.
Carbon calculators	Sweden has an interest in learning more about the Scottish
	carbon calculator, to test impact of their landscape initiatives.

#### BRIEFING NOTE 11 High-level roundtable discussion with President and CEO of COP28 Thursday 19 October, 17:45 – 20:15

Location	
Location	Silfurberg Hall, Harpa Second Level
Key	• Scotland was <b>proud to host COP26</b> in 2021. Glasgow is the northernmost city to
messages	<ul><li>have played host to a COP conference to date.</li><li>It is our hope COP28 will build momentum towards increased global action on</li></ul>
	and urgent funding for loss and damage.
	• Our COP27 £5 million Non-Economic Loss and Damage pledge will be
	mobilised this year. We are looking for additional donors.
	• <b>Negotiations must be inclusive</b> . The Scottish Government will continue to play a bridging role ensuring the voice of women, young people, Indigenous groups and the Global South influence debate and action.
	• As European co-chair of the <b>Under 2 Coalition</b> , we will continue to advocate for greater recognition for subnational governments.
What	A special consultation meeting open to Ministers and senior officials attending the
	Arctic Circle Assembly. It will serve as an opportunity to assess the current state of the negotiations and interrogate the COP28 leadership.
	Participants are encouraged to engage in an open and constructive dialogue but there will be <b>no speeches</b> . The meeting will be convened <b>under Chatham House Rules</b> . The room will be set up in <b>roundtable format</b> , without tables.
	Running order
	17:45 Greetings and networking
	18:15 Meeting starts
14/6.4	20:15 Meeting ends
Why	An opportunity to join other high-profile attendees and gather useful intelligence on the status of the COP28 negotiations. You will be able to promote Scotland's key- objectives for the summit (see Annex A), especially in relation to loss & damage and the role of non-party governments. You will want to remind attendees of our role as hosts of COP26 and raise awareness of the leadership role that Scotland is playing at a subnational level as co-chair of the Under2 Coalition.
	H.E. Dr. Sultan Al Jaber – President-Designate of COP28 UAE
Who	He is a member of the UAE Federal Cabinet, Minister of Industry and Advanced Technology, COP28 President-designate, and the United Arab Emirates' Special Envoy for Climate Change. He has been responsible for overseeing, developing and enhancing strategic geopolitical, social and economic partnerships with several nations.
Who	H.E. Dr. Adnan Amin – CEO of COP28
	He recently completed his tenure as the first Director General of the International Renewable Energy Agency (IRENA). He has had a long and distinguished career at the United Nations. His last assignment at the UN was Head of the Secretariat of the UN System Chief Executives Board (CEB), the principal UN policy coordination forum chaired by the Secretary General of the UN.
Attached	Annex A – COP28 – Core Brief

*documents* Annex B – COP26 – Top lines and achievements

[REDACTED]

#### **Background**

The UAE are hosting COP28 in Dubai from 30 November – 12 December. The conference is expecting to convene over 70,000 participants (double that of COP27), including heads of state, government officials, industry leaders, academics, and representatives from civil society organisations.

The UAE indicate they will prioritise mitigation, achieving a global goal on adaptation, setting out the details of the loss and damage finance facility, and driving towards a global goal on climate finance through mobilising the (as yet unmet) commitment of providing US\$100 billion per year.

#### [REDACTED]

#### Loss and damage

- Our funding for loss and damage is part of our **climate justice approach**, which recognises those least responsible for the global climate emergency are being affected first and most severely by it. Developed countries, like Scotland, have a moral responsibility to help address the loss and damage caused by these unavoidable climate change impacts.
- Loss and damage refers to the destructive impacts of climate change that cannot be or have not been avoided by 'mitigation' (reducing greenhouse gas emissions) or 'adaptation' (adjusting to and building resilience against current and future climate change impacts).
- Non-Economic Loss and damage refers to loss and damage that is not easily quantifiable in economic terms, such as loss of life, degraded health, losses induced by human mobility, as well as loss or degradation of territory, cultural heritage, Indigenous knowledge, societal/cultural identity, biodiversity, and ecosystems.

## COP26 TOP LINES AND ACHIEVEMENTS

#### <u>The Scottish Government were proud to have hosted a successful COP26 as Glasgow hosted</u> one of the most important gatherings of world leaders this century

- While not a party to the negotiations, Scotland played our part to secure a successful outcome and to fluence international action on climate change and support global efforts to deliver a transition to net-zero in a way that is fair and just.
- The Scottish Government joined the 50x30 coalition, an alliance between emissions research institutions and governments that recognise the vital importance of cutting emissions by 50 per cent by 2030 to limit ice loss and sea level rise. Scotland is the first non-state member of the coalition, which includes Germany, Denmark, Finland, Sweden and UK Gov.
- The Climate Justice Fund supported a Malawi Climate Leaders COP Hub in Lilongwe, Malawi, making COP accessible to 320 Malawian youth who attended 12 accessibility sessions and several events including virtual events with Scottish Ministers and in person event attended by Malawian Governments.
- At COP26, through influence, support and solidarity with members across the Under2 Coalition, we
  mobilised more governments to commit to greater action and more ambitious commitments to
  achieve net zero through an updated Under2 MOU, which commits the Under2 to becoming a netzero Coalition.
- The "Further, Faster, Together" high-ambition statement, launched during COP26, demonstrates support from 68 state, regional and devolved governments, for a range of cross-sectoral actions to reduce emissions by 2030, hence demonstrating tangible policies members are using, or planning to use, to deliver climate action.

# LOSS & DAMAGE

- Throughout COP26, the Scottish Government called for progress to be made on keeping 1.5C alive, and making gains on adaptation and loss and damage. This happened at COP26, although of course more ambition could have been included.
- We are proud that at COP26, Scotland became the first country to commit funding for Loss and Damage. This was followed by commitments from Wallonia, Denmark, and philanthropy. Globally there is now over \$300m of finance to address loss and damage committed.
- We are already using our initial £2m L&D to support communities to address losses and damages in Bangladesh, the Pacific Islands and Malawi; as well as funding research on needs assessments and case studies as part of our commitment to build evidence around how to most effectively address loss and damage.
- Since announcing that funding, Scotland has continued 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*. The resulting synthesis was shared at COP27

# MARGINALISED VOICES AND YOUNG PEOPLE

# Throughout COP26, The Scottish Government sought to be a bridge builder, to amplify the voices of the global south, and address the inequality of climate change on marginalised people, especially young people and women.

- The former First Minister launched the Glasgow Women's Leadership Statement on gender equality and climate change which acknowledges the disproportionate impacts of climate change on women and girls and celebrates the role of women leaders at all levels in addressing the climate crisis.
- The Scottish Government also confirmed its commitment become a Commitment Maker as part of the Feminist Action for Climate Justice global coalition
- Scotland provided almost £950k funding for children and young people to participate in COP26 and to enable third sector partners to engage with and amplify the voices of children young people.

# Meeting with Ólafur Ragnar Grímsson – Chairman, Arctic Circle Friday 20 October 2023, 09:00 – 09:20

Location	Vísa room, Harpa ground floor
Points for discussion	<ul> <li>Congratulations on the 10th anniversary of the Arctic Circle Assembly.</li> <li>We value our close and productive partnership with the Arctic Circle Secretariat. Scottish Ministers have addressed this conference every year since 2016 (except in 2020 when it was cancelled due to Covid-19).</li> <li>The Assembly is mentioned in our latest Programme for Government, which commits SG to using the conference as a platform to promote Scotland's green energy potential.</li> <li>For the first time, the Scottish Government has secured a stall at this year's Assembly.</li> <li>We are pleased that Scotland is represented on the Arctic Circle's Advisory Board by Professor Mark Inall (Scottish Association for Marine Science).</li> <li>Interested in your plans for the next Arctic Circle Forum in Berlin. We would be pleased to receive an invitation for one of our Minister to attend.</li> </ul>
Why	Short courtesy meeting to thank the Arctic Circle secretariat for the invitation to this year's conference and underline our continued appetite for collaboration.
Who	HE Ólafur Ragnar Grímsson – Chairman of the Arctic Circle
	<ul> <li>Born in Ísafjörður (north-west Iceland) in 1943, he gained a PhD in Political Science from the University of Manchester. For several years, he was a member of the Parliamentary Assembly of the Council of Europe.</li> <li>He served as President of Iceland from 1996-2016. He founded the Arctic Circle Secretariat in 2013.</li> </ul>
	HE Grímsson will say a few words to open the Ministerial breakout session on energy collaboration in the North Atlantic immediately after this meeting.
Media	@ORGrimsson @_Arctic_Circle
Attached documents	Annex A – Background information

#### **Background**

HE Grímsson has regularly encouraged the Scottish Government to bring larger delegations to the Assembly, especially young people and business representatives. Last year's conference saw Scotland's largest contingent to date. This year, we have a stall at the conference.

During meetings with Scottish Ministers at past Assemblies, HE Grímsson repeatedly suggested organising a Scotland-themed reception.

#### [REDACTED]

#### Scottish Government engagement with the Arctic Circle

- Scottish Ministers have attended every Arctic Circle Assembly since 2016 (the former FM participated in 2016, 2017 and 2021). The conference was cancelled in 2020 due to the pandemic.
- Mr Wheelhouse's participation in the 2019 conference served as international launch of the Scottish Government's Arctic policy framework (published in September 2019).
- Edinburgh played host to the Arctic Circle Forum (a spin-off event of the Assembly) in November 2017. The former First Minister and HE Grímsson delivered opening speeches.
- The Arctic Circle Secretariat appointed Professor Mark Inall Professor at the Scottish Association for Marine Science (SAMS) and former Director of the Scottish Association for Geoscience, Environment and Society (SAGES) – as Scottish member of their Advisory Board. SG officials provided suggestions on the back of a letter from HE Grímsson to the former FM.

#### **Recent and future Arctic Circle events**

The Arctic Circle Secretariat have announced that the next spin-off event – similar to that held in Edinburgh in 2017 – will take place in Berlin in May 2024. It will be co-hosted by the German Federal Ministry of Education and Research. Officials will explore opportunities for a Scottish Minister to attend and participate in breakout sessions.

Recent Forum events include:

- Tokyo March 2023
- Abu Dhabi January 2023
- Nuuk August 2022

The Scottish Government – in partnership with Scotland's Rural College, Newcastle University, Akita International University and Hiroshima University – co-organised a breakout session focused on island depopulation at the Tokyo Forum.

We did not participate in the Abu Dhabi and Nuuk events.

# Breakout session: "Building a North Atlantic Green Energy Hub" Friday 20 October, 09:40 – 11:15

Location	Norðurljós, Harpa second floor
Key messages	<ul> <li>Scotland is the world's most northerly non-Arctic nation.</li> <li>We have an enviable track record in renewables and an abundance of green energy resources.</li> <li>The scale of challenges and ambitions we have in common require a regional approach. I welcome this opportunity to discuss how we can work together.</li> <li>We must pool our complementary expertise to deliver decarbonised, affordable and secure energy systems in our shared North Atlantic neighbourhood.</li> <li>Scotland has world-leading expertise around technologies including offshore wind, hydrogen and marine energy.</li> <li>We have a massive potential pipeline of green energy projects. We can and want to be an exporter of clean energy to assist decarbonisation efforts in our shared Arctic and northern neighbourhood.</li> </ul>
What	<ul> <li>A 85-minute breakout session with Ministers from across the North Atlantic region. It was organised by SG in collaboration with Nordic Energy Research.</li> <li>You are invited to deliver short (~7 mins) opening remarks from a lectern, before taking part in a seated Q&amp;A session. The session will be recorded.</li> <li>Officials have prepared two slides to be shown during your remarks, both taken from the energy brochure designed for the conference. One shows Scotland's location in the context of Arctic and North Atlantic geography. The other maps energy projects across Scotland.</li> <li>The event will be moderated by Halla Hrund Logadóttir and Daria Shapovalova. We have pre-agreed a question for the panel discussion:</li> <li>A number of countries are exploring opportunities to become exporters of hydrogen. What advantages does Scotland have in this increasingly crowded field?</li> </ul>
Why	This session will gather Ministers from Scotland and Nordic countries to discuss opportunities for the North Atlantic region to establish itself as a green energy hub and reflect on the expertise that each country can contribute to achieving this objective. With Greenland majoring on hydro and Iceland focusing on geothermal, you will be able to underline Scotland's work on offshore wind and marine energy, as well as our hydrogen ambitions.
Who	Full list of speakers available at Annex A
Attached documents	Annex A – Biographies           Aide memoire for pre-agreed question attached separately

#### BIOGRAPHIES

#### ANNEX A

#### Gudlaugur Thór Thórdarson – Environment Minister of Iceland



Gudlaugur Thór Thórdarson took office as Minister of the Environment, Energy and Climate in November 2021. He was Chairman of the Parliamentary group of the Independence Party 2016-2017. His Ministerial career includes positions as the Minister for Foreign Affairs and International Development Cooperation (2019-2021), Minister for Foreign Affairs and External Trade (2017–2019) and Minister of Health and Social Security (2007-2009).

#### Kalistat Lund – Environment Minister of Greenland



Mr Lund is a strong advocate for green energy solutions and climate change mitigation. Before entering parliament, he was Mayor of Narsaq Municipality. Besides his activities in national and local politics, he has more than 30 years of experience as a helicopter pilot in Greenland.

#### Karen Elleman – Secretary General of the Nordic Council of Ministers



She has served as Secretary General since January 2023. Previously, she was a member of the Danish Parliament (2007-2022) for the Venstre party (centre-right) as well as a member of the Nordic Council. She held several ministerial posts, including Minister for Fisheries, Minister for Gender Equality, Minister for Nordic co-operation, Minister for Social Affairs, Minister of the Interior and Minister for the Environment.

#### Ólafur Ragnar Grímsson – Chairman of the Arctic Circle



Born in Ísafjörður (north-west Iceland) in 1943, he gained a PhD in Political Science from the University of Manchester. For several years, he was a member of the Parliamentary Assembly of the Council of Europe.

He served as President of Iceland from 1996-2016. He founded the Arctic Circle Secretariat in 2013.

#### Halla Hrund Logadóttir – Director-General, National Energy Authority [MODERATOR]



As well as serving as DG of the Energy Authority of Iceland (since 2021), she is a lecturer at the Harvard Kennedy School, where she also funded the Arctic Initiative, which seeks to address the challenges and opportunities created by climate change in the far North. Previously, Halla was Director of the Iceland School of Energy at Reykjavík University. She is the co-founder of Girls4Girls, a global mentorship program which empowers young women to take on public leadership roles.

#### BRIEFING NOTE 14 Meeting with Guðlaugur Þór Þórðarson –Minister for the Environment, Energy and Climate Friday 20 October, 13:00 – 13:45

Location	Meeting room Sund, Harpa fourth floor
Points for discussion	<ul> <li>Iceland's electricity demand is growing. How do you envisage increasing renewable energy production in the coming years?</li> <li>Pleased to see Scottish-Icelandic knowledge exchange on wind energy. Can SG offer any further assistance to inform ongoing policy assessments?</li> <li>Interested in the role of hydrogen in Iceland's decarbonisation journey. I understand Scotland's work inspired Iceland's 2030 Vision for Hydrogen. We stand ready to strengthen and possibly formalise those policy links.</li> <li>I understand you welcomed other Nordic Ministers for Energy to Reykjavik earlier this week. What are the key challenges the Nordic region is facing, in so far as the energy transition and green energy production are concerned?</li> <li>The Scottish Government is very keen to strengthen collaboration on green energy solutions with Nordic partners. What are the key green energy initiatives that Iceland is promoting during its presidency of the Nordic Council of Ministers in 2023? Can Scotland assist?</li> <li>With the space industry growing at pace in both Scotland and Iceland, our environment agencies could learn from each other on the regulatory frameworks required to make launches possible.</li> </ul>
Why	Complementing your engagements with the Icelandic Parliament's Environment Committee and the Director General of the Energy Authority, this meeting will allow you to set out our stall and promote Scotland as a strategic energy partner for both Iceland and the wider Nordic region. We know Mr Thórdarson well and we can expect him to be open with you about his priorities for international energy collaboration. With Iceland holding the presidency of the Nordic Council of Ministers in 2023 and being traditionally open to greater Scottish involvement in Nordic cooperation, you will be able to underline our appetite for both bilateral and multilateral involvement in renewable energy initiatives.
Who	Gudlaugur Thór Thórdarson – Environment Minister of Iceland
	Gudlaugur Thór Thórdarson took office as Minister of the Environment, Energy and Climate in November 2021. He was Chairman of the Parliamentary group of the Independence Party 2016-2017. His Ministerial career includes positions as the Minister for Foreign Affairs and International Development Cooperation (2019-2021), Minister for Foreign Affairs and External Trade (2017-2019) and Minister of Health and Social Security (2007-2009).
	meetings with Scottish Ministers, including the former FM. He also visited Edinburgh for the Arctic Circle Forum in 2017.
Media	@GudlaugurThor
Attached documents	Annex A – Core brief

# CORE BRIEF

#### Iceland – Energy profile and debate on wind energy

- Thanks to an abundance of geothermal and hydropower, 99% of energy produced in Iceland is already green. However, electricity demand continues to grow, mainly due to industrial growth.
- [REDACTED]
- The Icelandic parliament approved an energy framework (the third of its kind) at the end of the spring 2022 session, setting broad principles to produce more hydro and geothermal energy and, for the first time, wind energy.
- The current administration is looking at ways to simplify regulations guiding the development of onshore wind farms, with Scotland one of the case studies. A separate working group has been set up to look at offshore wind farms.
- [REDACTED]
- Iceland has seen strong opposition from fishermen and environmentalists on the perceived lack of research on the impact of (particularly floating) offshore wind turbines on wildlife. The travel industry has also voiced reservations around the visual impact of offshore wind projects.
- Due to Iceland's extensive coastline and availability of deep water sites, there are opportunities for Iceland and Scotland to build a practical partnership, which could also open future trade opportunities and promote Scotland's supply chain.

#### Hydrogen Strategy – Iceland

- The 2030 Vision for Hydrogen strategy released by the Icelandic Government in 2020 was inspired by similar documents published by the Scottish Government.
- Due to the country's unlimited geothermal and hydropower resources, a technology as expensive as green hydrogen production has a better chance of being commercially viable in Iceland than anywhere else. However, disagreements persist on the value of greater investment in hydrogen technologies.

[REDACTED]

### **BRIEFING NOTE 15**

# Meeting with Dan Vandal – Canadian Federal Minister of Northern Affairs Friday 20 October, 14:00 – 14:30

Location	Vik room, Harpa fourth level [REDACTED]
Key messages	<ul> <li>Scotland and the Arctic region share many challenges, often stemming from rurality and low population density.</li> <li>The Scottish Government published an Arctic policy framework to encourage knowledge and policy exchange aimed at promoting sustainable development and strengthening community wellbeing.</li> <li>Later today, I will open a breakout session that SG co-organised with National Research Council Canada. It focuses on community green energy projects. I believe this is an area where our governments could work more closely together and learn from each other. It builds on a session at last year's Assembly, which focused on rural mental health – another shared issue.</li> <li>Our Arctic Connections fund provides financial support to Scottish-Arctic cooperation. Pleased many projects include Canadian partners.</li> <li>We have established strong links with Indigenous organisations in Canada, especially the Inuit Circumpolar Council Canada.</li> <li>The Scottish Government opened an office in Ottawa. I would encourage your officials to work with them to explore further opportunities for mutual learning.</li> </ul>
Why	<ul> <li>This is our first meeting with a Canadian Federal Minister focused on Arctic collaboration. It will allow us to bring to the Canadian Government's attention the growing network of links we have already established with Canadian stakeholders and the complementary expertise that Scotland can offer to tackle shared issues and promote tangible collaboration.</li> <li>We should be mindful that the scale of our rurality is very different compared to the Canadian Arctic (the Yukon's population density is 0.1 people / square km). But challenges concerning eg wellbeing, connectivity, transport are nonetheless similar. The development of new renewable energy projects in the Canadian Arctic is one of Mr Vandal's portfolio responsibilities. You will want to underline our expertise and encourage further discussions between officials.</li> <li>Officials can assist with setting out existing Arctic links with Canada – including on diaspora and soft diplomacy issues such as Indigenous languages – to strengthen the sense of affinity and make Mr Vandal aware of how relevant Scotland is to his portfolio.</li> </ul>
Who	Dan Vandal – Canadian Federal Minister of Northern Affairs
	First elected as MP for Saint Boniface – Saint Vital (Manitoba) in 2015, he became Minister of Northern Affairs in 2019. He has a long record of service in Saint Boniface, where he served five terms as a Winnipeg City Councillor. He previously worked as a social worker at Winnipeg's Ma Mawi Wi Chi Itata Centre, an Indigenous family resource centre delivering community-based services. From 2010 to 2013, he was Chair of the Board of Directors for the Aboriginal Peoples Television Network.
Attached documents	Annex A – Core brief

# CORE BRIEF

#### Arctic policy framework – Key lines for Canada

- Scotland is the world's most northernly non-Arctic nation. Our Shetland archipelago lies at a higher latitude than Whitehorse (Yukon). We share longstanding cultural, social and economic ties.
- Arctic Connections, Scotland's first Arctic Policy Framework, illustrates existing links, reflects on shared challenges (particularly those stemming from rurality and remoteness) and explores avenues for closer cooperation.
- The policy framework is not a geopolitical statement but a prospectus for cooperation and knowledge exchange on issues that are relevant to both Scotland and the Arctic.
- From empowering rural areas to accelerating decarbonisation, from promoting Indigenous languages to developing sustainable tourism solutions, there is a lot Scotland and Canada can work together on.
- We have 11 members in the University of the Arctic, which has allowed us to establish new links with Canadian universities. The Principals of the two largest HEIs in the Canadian Arctic University of the Yukon and Nunavut Arctic College have both Scottish heritage.

#### Arctic Connections Fund – Projects with Canada

Examples of Scottish-Canadian projects supported by the fund include:

- **Navigating the Future** (£9,381) Heriot Watt University is working with Green Marine (a leading environmental certification program for North America's maritime industry) to develop an overview of the main drivers and concerns related to transitioning ports in Arctic and sub-Arctic nations
- Environmental sustainability of the Inuit community of Pond Inlet (£10,000) –University of Aberdeen researchers carried out fieldwork in the Hamlet of Pond Inlet to survey the energy supply, waste and sewage disposal and, where appropriate, provide guidance for improvements
- **Supporting rural women in Arctic low-carbon transitions** (£8,600) Scotland's Rural College gathered female researchers from across many Canadian universities to share knowledge on how to support rural women during the transition to net-zero in the Arctic region.
- Arctic Food Sovereignty (£7,504) The University of Aberdeen worked with the University of Athabasca, as well as Indigenous Cree and Dene communities, to investigate how to promote local food sovereignty.
- Scottish and Canadian Interculturalism in Place-based Social (£10,000) The Social Enterprise Academy worked with the Canadian Community Economic Development Network to explore how community-led social enterprise can be a vehicle for enabling the sustainable development of remote rural communities.

#### Inuit Circumpolar Council Canada

- ICC was founded by in 1977 to bring a unified voice for Inuit internationality to safeguard and promote Inuit rights. Today, ICC represents approximately 180,000 Inuit from Alaska, Canada, Greenland and Chukotka, all known as Inuit Nunaat.
- The Scottish Government has had frequent engagements with ICC Canada in recent years, especially with President Lisa Koperqualuk. Key areas for collaboration include: cultural connections, Indigenous languages (Inuktitut, Gaelic, Scots) and rural wellbeing.
- At COP26, SG worked with ICC to co-celebrate Inuit Day (7 November). A one-day conference took place at the University of Strathclyde, with SG support.

[REDACTED]

#### OFFICIAL - SENSITIVE

#### BRIEFING NOTE 16 Breakout session "*From the North Sea to the Arctic: Creating Mutual Energy Security*" Friday 20 October, 15:00 – 15:55

Location	Kaldalón, Harpa ground floor
Key messages	<ul> <li>The North Sea can be the key to unlocking green energy solutions, for our shared northern neighbourhood and beyond.</li> <li>The Scottish Government's draft ESJTP refers to the North Sea as a potential "battery for Europe".</li> <li>Scotland has a massive potential pipeline of offshore wind projects of 40 gigawatts. At least part of that potential can go towards supplying green energy to international partners.</li> <li>Energy and economic security across the North Sea region will come from integrated and mutually reinforcing infrastructure. Not segregated systems.</li> <li>The Scottish Government has already commissioned research on how Scotland could connect into a European Hydrogen Backbone.</li> <li>Scotland has a huge range of skills, assets and industry knowledge that can help the North Sea transformation go faster.</li> </ul>
What	A 55-minute breakout session included in the official programme of the conference. You are asked to deliver a <b>5-minute speech</b> before taking part in a <b>moderated Q&amp;A session</b> . There may be time for the audience to ask questions. We have <b>pre-agreed a question</b> with the moderator: You spoke about the industrial opportunities that the green energy transition can unlock in the North Sea and beyond. But are the skills and supply chain there to support the transition and realise that potential?
Why	<ul><li><b>30-second elevator pitch</b> on Scotland's contribution to North Sea energy collaborations.</li><li>The session is organised by SG in collaboration with the Brussels-based Egmont Institute. The latter, an international affairs think tank, has a key role in advising the Belgian government and is leading on the development of Belgium's first Arctic</li></ul>
	<ul> <li>strategy. Egmont Institute researchers reached out to SG officials to learn more about the process that led to the publication of our Arctic policy framework</li> <li>With diplomats from Belgium and the Netherlands as well as a senior energy official from Ireland on the panel, you will be able to set out Scotland's ambition to lead from the front in pursuing green energy collaborations in the North Sea region.</li> <li>Anu Fredrikson, the last panel member, is a trusted stakeholder and chairs the secretariat of the second largest Arctic conference in Europe, Arctic Frontiers. In May 2023, SG and Arctic Frontiers co-organised a conference in Aberdeen.</li> </ul>
Who	Full list of panellists is available at Annex A.
Attached documents	Annex A – Biographies Speaking note and aide memoire for pre-agreed question attached separately

#### BIOGRAPHIES

#### ANNEX A

#### Jan Bayart – Belgian Ambassador to Norway and Iceland



Ambassador Bayart joined the diplomatic service in 1996. He started his career in Pretoria (1998-2002), following which he served at the Ministry of Foreign Affairs in Brussels (2002-2004) and at Belgium's delegation to the European Union (2004-2008). He then worked as diplomatic advisor to the Secretary of State for EU Affairs before being posted to Paris (2011-2015) and London (2015-2019). From 2019 to 2023 he again served in Brussels, at the Foreign Ministry's EU Directorate General.

#### Sjoerd Smit – Dutch Deputy Ambassador to Norway and Iceland



He has held his current role since August 2021. He previously served as Deputy Ambassador in Sudan where he headed the Embassy's policy team working on peace and security, migration, human rights and economic diplomacy. He also worked as as Deputy Head of Business Climate and Markets Division in the Ministry of Foreign Affairs.

#### Anu Fredrikson – Executive Director, Arctic Frontiers



Anu is originally from Oulu in Northern Finland. Prior to joining Arctic Frontiers, Anu served as Director of the Arctic Economic Council and as an Advisor in Political Affairs and Arctic Policy at the Embassy of Finland in Oslo.

She visited Aberdeen in May 2023 for the Arctic Frontiers Abroad conference co-organised by Arctic Frontiers and Scottish Government.

#### Conor McCabe – Head of International and Offshore Energy, Irish Government



Conor McCabe is the Principal of the International and Offshore Energy Division which has responsibility for offshore energy policy to 2030, offshore grid policy including electricity interconnection policy, offshore energy market support policies and the National Energy and Climate Plan. The Division also co-ordinates and has governance of EU energy policy, international (non-EU) energy policy and preparation for Ireland's EU Presidency from a DECC perspective.

#### Karen Marie Oseland – Senior Associate, The Arctic Institute [MODERATOR]



Karen worked as Climate and Energy Analyst at the International Centre for Integrated Mountain Development in Kathmandu, Nepal. She previously worked on the Climate and Arctic Team at the Norwegian Embassy in Washington DC, where her focus was environmental affairs and climate change. She graduated from New York University with a MS in Global Affairs, specializing in Energy and Environment Policy.

#### **BRIEFING NOTE 17**

# Welcome remarks at breakout session co-organised with National Research Council Canada Friday 20 October 2023, 16:10 – 17:05

Location	Ballroom A, Edition Hotel
Key Messages	<ul> <li>Delighted to continue our partnership with National Research Council Canada to address together shared challenges in rural Scotland and Canadian Arctic.</li> </ul>
	<ul> <li>We must empower local communities in the transition to net zero.</li> <li>The Community and Renewable Energy Scheme – CARES – is SG's flagship</li> </ul>
	programme for supporting community renewable energy projects.
What	You are invited to deliver short remarks to open a breakout session co-organised by SG and National Research Council Canada (NRCC). It will focus on the decarbonisation of off-grid infrastructure in rural and remote areas.
	This session builds on a successful event on rural wellbeing that we co-promoted with NRCC at last year's conference. NRCC is an influential and valued partner as we seek to expand our Arctic work and connections in North America.
	The Scottish Government has covered expenses for the two Scottish speakers on the panel.
	<b>Description</b> Communities across Inuit Nunangat are heavily dependent on fossil fuels to support nearly all their heat and electricity loads. However, there is a strong desire to develop renewable energy sources to decrease the dependence on fossil fuels, mitigate climate change impacts and improve resiliency. With its largely rural profile, Scotland includes some of the least densely populated areas in Europe. While Scottish rural areas host a range of innovative energy projects, often community-owned, rurality continues to generate comparatively high energy costs for households and businesses, sometimes causing fuel poverty in places that have some of the best renewable energy resources in the world. This session will examine how the decarbonisation of off-grid infrastructure and the deployment of renewable energy technology in sparsely populated areas can be underpinned by participative decision-making and informed by local and Indigenous expertise. It will present case studies and ongoing research in Nunavut and rural Scotland.
Who	<ul> <li>Anne Barker – Director, Arctic and Northern Challenge Programme, NRCC</li> <li>Jess Puddister – Strategy and Engagement Manager, Nunavut Nukkiksautiit Corporation</li> <li>Carsen Banister – Research Council Officer, Construction Research Centre, NRCC</li> <li>Cameron Johnstone – Executive Director, Energy Systems Research Unit, University of Strathclyde</li> <li>Camille Dressler – Chair, Scottish Islands Federation</li> </ul>
Media	@_Arctic_Circle @NRC_CNRC @Jess_Puddister @UniStrathNews
Attached	Annex A – Biographies
documents	
	Speaking note attached separately

# BIOGRAPHIES

# ANNEX A

# Dr Anne Barker – Director, Arctic and Northern Challenge Programme, NRCC [MODERATOR]



Anne has been Director of NRCC's Arctic programme since April 2022. She is an engineer and her expertise revolves around ice-structure interactions, including in relation to offshore wind turbines.

She met Mr Robertson at last year's Assembly and then in Glasgow, where they both spoke at an Arctic conference in June 2023.

#### Jess Puddister – Strategy and Engagement Manager, Nunavut Nukkiksautiit Corporation



Jess is a Geo-Environmental scientist. At Nunavut Nukkiksautiit Corporation since 2022, her previous roles included Municipal Climate Change Advisor and Climate Change Adaptation Coordinator.

#### Carsen Banister – Research Council Officer, Construction Research Centre, NRCC



His work focuses on optimizing building performance and integrating clean energy sources with building operation. Carsen's research background is in thermodynamics, energy conversion, heat transfer and fluid mechanics. He is highly active in the Canadian Arctic, typically having several ongoing projects in collaboration with Arctic communities and organizations to improve building construction and emissions performance.

#### Cameron Johnstone – Executive Director, Energy Systems Research Unit, Uni of Strathclyde



At Strathclyde since 1991, he is a Senior Lecturer in Energy Systems Engineering within the Department of Mechanical and Aerospace Engineering. He has in excess of 30 years' experience in renewable energy research, focusing on power capture interface engineering and power transfer and take-off.

#### Camille Dressler – Chair, Scottish Islands Federation



Her interests are community empowerment and community energy, as well as heritage and the arts. A Gaelic learner, she has established a crofting museum and bilingual crofting trail on the isle of Eigg and is a founder member of Comunn Eachdraidh Eige.

#### **BRIEFING NOTE 18**

# Meeting Zakia Khattabi – Belgian Minister for Climate, the Environment, Sustainable Development and Green Deal

# Friday 20 October, 17:15 – 17:45

Location	Studio 2+3 meeting room, Edition hotel
Points for discussion	<ul> <li>Sorry about the awful terrorist attack in Brussels earlier this week.</li> <li>Interested in your government's work to develop Belgium's first Arctic policy framework. What do you expect the main themes to be? What are Belgium's key objectives for Arctic collaboration?</li> <li>We were pleased to share some of the lessons we learnt by developing and implementing our Arctic policy framework with the Egmont Institute.</li> <li>Scotland's green energy expertise is a key component of our Arctic offer. I am here to encourage collaboration and was joined by your Ambassador to Norway for a breakout session earlier today.</li> <li>How do you expect climate and environment issues to feature among the priorities for Belgium's presidency of the EU (Jan-Jun 2024).</li> <li>Interested to hear progress on how your loss and damage funding is delivering on the ground? (Belgium pledged £2.1 million at COP27).</li> <li>Our COP27 £5 million Non-Economic Loss and Damage pledge will be mobilised this year. We are working with the Climate Justice Resilience Fund on a programme that will ensure women and girls are given a strong voice. We are looking for additional donors.</li> </ul>
Why	This meeting will allow you to build on past Ministerial engagements with Ms Khattabi, who has shown to be open to greater Belgium-Scotland collaboration on climate and environment issues. It is the first time that a Belgian Minister has participated in the Arctic Circle Assembly. By raising awareness of official-level discussions with the Egmont Institute, who are advising the Belgian government on the development of their first Arctic policy framework, you will be able to promote Scotland as an expert and well-connected partner as Belgium seeks to expand its Arctic networks. Belgium will hold the EU presidency in the first semester of 2024. While priorities for their presidency have not yet been published, you will want to seek an update on current thinking – especially in relation to energy and climate issues.
Who	Zakia Khattabi – Belgian Minister for Climate, the Environment, Sustainable Development and Green DealImage: Development and Green Development and
Media	@KhattabiZakia
Attached documents	Annex A – Core brief

ANNEX A

## CORE BRIEF

# Past engagements with Ms Khattabi

- In May 2022, Mr Robertson and Ms Slater visited Brussels together. A meeting with Ms Khattabi was included in their programme. Discussions focused on SG's wellbeing economy work (which Ms Khattabi expressed interest in), climate resilience (with Ms Khattabi setting out plans for a dedicated institute in Belgium) and just transition.
- A meeting with Ms Khattabi had also been included in the programme for Ms McAllan's visit to Brussels in June 2023. However, it had to be cancelled at short notice due to significant internal issue within the Belgian government that day.

#### Arctic collaboration with Belgium

- The Brussels-based Egmont Royal Institute for International Relations is advising the Belgian government on the development of their first Arctic policy framework.
- Egmont researchers, led by former EU Arctic Ambassador Marie-Anne Coninsx, reached out to DEXA's Nordic and Arctic Unit to learn from the process that led to the publication of our own Arctic policy framework.
- DEXA and Egmont Institute worked together to organise the breakout session on energy security in the North Sea region that you spoke at earlier today.
- It is likely that the Belgian document will have in climate research one of its themes but this meeting will allow you to find out more about their priorities and encourage continued collaboration with Scotland (the most northerly non-Arctic nation).

#### Under 2 Coalition

- The Under 2 Coalition is the largest global network of states, regions, provinces and other subnational governments committed to achieving net zero emissions by 2050 at the latest.
- Scotland is serving its second term as European co-chair.
- [REDACTED]
- Within the Under 2 Coalition, the Scottish Government leads the Net Zero Futures Policy Forum and the Just Transition Taskforce to ensure that Coalition members have the practical support they require to deliver their climate targets.
- The Coalition has been named one of the international partnerships with the highest potential for emissions reduction – 3.3-3.9GtCO2e/year in 2030 – more than the current annual emissions of the EU.

#### Loss and damage

- Our funding for loss and damage is part of our **climate justice approach**, which recognises those least responsible for the global climate emergency are being affected first and most severely by it. Developed countries, like Scotland, have a moral responsibility to help address the loss and damage caused by these unavoidable climate change impacts.
- Loss and damage refers to the destructive impacts of climate change that cannot be or have not been avoided by 'mitigation' (reducing greenhouse gas emissions) or 'adaptation' (adjusting to and building resilience against current and future climate change impacts).
- Non-Economic Loss and damage refers to loss and damage that is not easily quantifiable in economic terms, such as loss of life, degraded health, losses induced by human mobility, as well as loss or degradation of territory, cultural heritage, Indigenous knowledge, societal/cultural identity, biodiversity, and ecosystems.

#### **BRIEFING NOTE 19**

### Plenary speech and panel discussion "Green Hydrogen: The Energy Future of the North?" Friday, 20 October 2023, 18:30 – 19:15

Location	Silfurberg Hall, Harpa Second level
Key Messages	<ul> <li>Scotland's key geographical position has long made us a crucial logistical node in the Arctic neighbourhood.</li> <li>The Scottish Government is keen to increase Scottish-Arctic collaboration and we have established a fund to support knowledge exchange with the region.</li> <li>We are facing a global climate and biodiversity emergency.</li> <li>We have established ourselves as leaders in renewable energy solutions.</li> <li>We are working on a potential offshore wind pipeline of over 40 gigawatts.</li> <li>Our ambition is to produce 5 gigawatts of low-carbon hydrogen by 2030, and 25 gigawatts by 2045.</li> <li>We are ready to work with partners in the region to bring a green and sustainable future closer.</li> </ul>
What	You are invited to deliver a short (~7-minute) speech during one of the Assembly's plenary sessions. You will be on stage following Kalistat Lund, Energy Minister of Greenland. There will be a <b>lectern</b> and you will be <b>standing</b> . At the end of the speech, you are invited to remain on stage for an hydrogen-focused panel discussion moderated by Össur Skarphéðinsson, former Minister of Foreign Affairs of Iceland. We have <b>pre-agreed a question</b> with the moderator: "You spoke about Scotland's ambition to become a world leader in hydrogen production and export. It will presumably require new port infrastructure. What work is Scotland doing to realise that potential?" He will also take a few <b>questions from the audience</b> .
Media	@_Arctic_Circle
Attached documents	Annex A – Biographies and background information Speaking note and aide memoire for pre-agreed question attached separately

#### BIOGRAPHIES

# ANNEX A

#### Kalistat Lund – Minister for Agriculture, Self-Sufficiency, Energy and Environment, Greenland



Before entering the Greenlandic Parliament, he was Mayor of the Narsaq municipality (south Greenland). Besides his activities in national and local politics, he has more than 30 years of experience as a helicopter pilot.

#### Edmund Alphandéry – Chairman, Électricite de France



Edmund Alphandéry is a French politician, public-sector company executive, and public policy advocate. He served as French Minister of Economy and Finance from 1993-1995, Executive Chairman of Électricité de France from 1995-1998, and chairman of CNP Assurances from 1998-2012.

### Frank Yu – Global Vice President, Envision Energy



He is responsible for Envision's zero carbon gas and hydrogen energy business. Prior to joining Envision, Mr Yu worked for Air Products in China as VP and General Manager of Hydrogen Energy Business. Mr Yu has a bachelor degree in Chemical Equipment and Machinery from Nanjing Chemical University and MBA from Maastricht School of Management and Nanjing University.

# Tryggvi Herbertsson – Head of Hydrogen Strategy and Partnership, Qair Group



Tryggvi Herbertsson is a former Icelandic MP for the Independence Party and a Professor of Economics at the University of Reykjavík. Before becoming an MP, he was the CEO of Askar Capital, a Nordic boutique investment bank. He served as the Special Economic Advisor to the Icelandic PM during the collapse of the Icelandic banking system in 2008. He has been a consultant to Fortune 500 companies as well as major international organizations and national governments.

#### Össur Skarphéðinsson [MODERATOR]



A member of Iceland's Social Democratic Alliance, he served as Minister for Foreign Affairs from 2009-2013. He also held the Energy and Industry portfolio from 2007-2009. He is still active in advising the Icelandic government on international relations and chaired a commission tasked with reviewing bilateral collaboration between Iceland and Greenland.

# Background information

[REDACTED]

#### BRIEFING NOTE 20 Possible meeting with Lisa Murkowski, US Senator for Alaska

A meeting with Ms Murkowski was scheduled for the afternoon of 20 October but the Senator's programme has since changed. Officials are working with her office to find a new slot.

Location	Harpa
Points for discussion	<ul> <li>Delighted that you will be joining the Friends of Scotland caucus. How can we best engage you and your colleagues going forward? I encourage you to use our office in Washington as a resource to remain informed on Scotland.</li> <li>This year's round of the Arctic Connections Fund supports a project between Space Scotland and the University of Alaska Fairbanks. A Scottish delegation will visit Fairbanks in January 2024.</li> <li>I understand you visited Aberdeen in 2019 and Glasgow in 2021 (for COP26). We would be delighted to welcome you to Scotland again, possibly on the occasion of Arctic Science Summit Week (Edinburgh, March 2024).</li> <li>Given Alaska's rich oil and gas heritage – are there learnings or synergies that could be shared as we embark upon the path of a just transition for the oil and gas sector? What opportunities do you see for emerging industries, building on the skill set of your oil &amp; gas workforce?</li> <li>You may be interested in the work that the Scottish Government is carrying out to support rural communities develop renewable energy projects.</li> </ul>
Why	Ms Murkowski is a prominent and respected stakeholder in the context of Arctic collaboration. She is a regular speaker at Arctic conferences and has shown interest in developing new links with Scotland. Her office contacted officials to arrange a meeting at the Assembly. They are also in touch with SG's office in Washington. [REDACTED] By bringing to the Senator's attention the support that SG has provided for a new Scotland-Alaska project on the space industry, you will be able to underline our interest in exploring opportunities for collaboration around the many similarities between Scotland and the state she represents.
Who	Lisa Murkowski – Senior United States Senator for Alaska (Republican) Senator Murkowski is a third generation Alaskan, serving (since 2002) as the first Alaskan born senator. She was first appointed to her seat in 2002 by her father, former Gov. Frank Murkowski. She is senior member (and former chair) of the Senate Energy and Natural Resources Committee and a member of the Senate Climate Solutions Caucus.
Media	@lisamurkowski @ScotGovUSA
Attached documents	Annex A – Core brief

# CORE BRIEF

#### Past engagements with Senator Murkowski

- In May 2019, together with other members of the US Senate Energy and Natural Resources Committee, Senator Murkowski visited Aberdeen as part of a wider tour of Northern Europe. She met ROVOP (a provider of subsea remotely operated vehicle services for oil and gas) and visited the University of Aberdeen to learn more about their "Carbon Capture Machine". She was joined by former Energy Minister Paul Wheelhouse.
- She was in Scotland for COP26 and took part in a gala reception for US delegates organised by the Scottish Government at Edinburgh Castle.
- She met the former First Minister at the Arctic Circle Assembly in 2017 and 2021. She also shared a panel discussion with Mr Robertson at Arctic Frontiers (Tromsø, Norway) in February 2023.

#### Friends of Scotland caucus

- The caucus is bipartisan and bicameral. The co-chairs are Robert Aderholt (R AL) and Steve Cohen (D – TN).
- Caucuses are a semi-official grouping, organised by House and Senate members themselves.
- The SG Washington office are offering support, engagement and information about Scotland to members of the caucus.

#### Scotland-Alaska project supported by the Scottish Government

- Through the third round of the Arctic Connections Fund (2023-2024), the Scottish Government is supporting a project aimed at building new links between Scotland and Alaska on the space sector.
- On the Scottish side, it is led by Space Scotland together with the University of Edinburgh and a Shetland-based consultancy company. The US partner is the University of Alaska Fairbanks.
- The project builds on a study visit to Scotland from senior leaders of the University of Alaska Fairbanks in 2022. They held meetings at the University of Edinburgh before travelling to Shetland to find out more about the space port.
- SG funding supports planning for a conference to be held in 2025. A Scottish delegation will visit Alaska in January 2024 to engage with industry, and economic leaders, with the goal to establish the framework document for the 2025 conference, directly addressing priority areas for both locations.

#### <u>Oil and gas</u>

- Senator Murkowski supports continued oil & gas extraction and exploration in Alaska. She however advocates energy innovation and emissions reductions.
- Last month, she reacted angrily to President Biden's decision revoke controversial oil leases in an Alaskan wildlife reserve that were awarded in the final days of the Trump administration. She called the decision "unconscionable", saying it was the latest sign of "an incoherent energy policy" from the Biden administration.

#### OFFICIAL - SENSITIVE

# **ARCTIC CORE BRIEF**

# Key lines

- Scotland is the world's most northernly non-Arctic nation. We share longstanding cultural, social and economic ties.
- Arctic Connections is Scotland's first Arctic Policy Framework. It illustrates existing links, reflects on shared challenges (particularly those stemming from rurality and remoteness) and explores avenues for even closer cooperation. It was published in September 2019.
- The policy framework is not a geopolitical statement but a prospectus for cooperation and knowledge exchange on issues that are relevant to both Scotland and the Arctic.
- We want to work with like-minded partners to develop joint solutions to shared challenges and improve the resilience and wellbeing of our communities.
- From empowering rural areas to accelerating decarbonisation, from promoting Indigenous languages to developing sustainable tourism solutions, there is a lot Scotland and Arctic countries can work together on.
- Climate change is endangering the future of the Arctic and of our entire planet. In the policy framework, we reiterate our calls for global action and we set out the considerable knowledge that Scotland can offer on decarbonisation.

#### Policy framework – Content

The APF is cross-cutting, drawing together key issues and policies across SG. We have identified 6 main areas, each one corresponding to a chapter in the document:

- 1. Scotland's global outlook and relationship with the Arctic region
- 2. Education, research and innovation
- 3. Cultural ties
- 4. Rural connections
- 5. Climate change, environment and clean energy
- 6. Sustainable economic development

# Key facts and figures

- Scotland has over 90 inhabited islands.
- 98% of our landmass is classified as rural but it contains only 17% of our population.
- The population density of the Highlands and Islands region of Scotland is among the lowest in Europe.
- The Shetland archipelago is closer to the Arctic circle than it is to London. It is located at a higher latitude than Cape Farewell (Greenland) and Juneau (Alaska, US).
- Since 2000, institutions in Scotland have contributed to more than 1,000 academic publications about the Arctic region.
- Scotland has 11 members in the University of the Arctic network. More than Denmark, Sweden and any other non-Arctic nation with the exception of China.
- 40% of the projects funded through the EU's Northern Periphery and Arctic programme 2016-2020 included a Scottish partner.

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#### Key recent Arctic initiatives

- Delivering on one of the commitments made in the policy framework, in April 2021 we established an **Arctic Connections Fund** to help Scottish organisation and communities work with Arctic partners. Organisations based in Scotland are invited to apply for up to £10k. To date, the fund has supported 31 projects worth a combined total of just under £280k.
- Officials have worked with the academic sector to increase the Scottish contingent within the **University of the Arctic**, an international and multidisciplinary network promoting research in and about the High North. Scotland now has **eleven members** in UArctic, with other two universities expected to apply for membership in 2024. We have more members than Sweden, Denmark and any other non-Arctic nation with the exception of China.
- We have provided financial support towards the establishment of the **Scottish Arctic Network** (ScAN), Scotland's first Arctic academic network, to encourage cooperation and joint work between Scotland-based researchers whose expertise revolves around Arctic matters.
- Thanks to an MoU signed in March 2023, ScAN has become a **UArctic regional centre**. It is only the second such centre outside Arctic countries (the other is in China).
- On behalf of ScAN and with our support, the University of Edinburgh will host **Arctic Science Summit Week** in March 2024, due to attract up to 1,000 Arctic researchers from around the world.
- The Scottish Government partnered with Arctic Frontiers (a major Arctic conference held annually in Tromsø) to promote a one-day conference focused on Scottish-Arctic cooperation. Arctic Frontiers Abroad Scotland took place at the Aberdeen Science Centre on 17 March 2023, with a focus on Just Transition and Blue Economy.
- A debate on Scottish-Arctic collaboration held in the Scottish Parliament on 2 March 2023 concluded with unanimous support for a motion encouraging even greater engagement and knowledge exchange between Scottish and Arctic partners.
- Scottish Ministers have addressed the **Arctic Circle Assembly** in Reykjavik every year it has been held since 2016. The former First Minister spoke at the conference three times (in 2016, 2017 and 2021).
- The Scottish Government co-sponsored the **Cryosphere Pavilion at COP26**, together with the Swiss Government and the Nordic Council of Ministers. The Pavilion promoted discussions between researchers, policy makers and leaders about the effect of climate change on the frozen regions of our planet. The Arctic was one of the key geographies.
- At COP26, Scotland became the first sub-national government to join the 50x30 coalition an alliance between emissions research institutions and governments that recognise the vital importance of cutting emissions by 50 per cent by 2030 to limit ice loss and sea level rise. Other members include German, Danish, Finnish, Swedish and UK Governments.
- In November 2020, we provided a contribution to the consultation on the EU's new Arctic policy, to set out relevant Scottish expertise and our desire to remain as closely involved in EU policy making as possible.

# We are disappointed that the UK Government has given approval to Rosebank while our concerns remain unaddressed

- We have been clear that the UK Government was wrong to approve this oil field.
- The majority of what is extracted from Rosebank will go overseas and not necessarily contribute to our domestic energy security. Around 80% of oil extracted from the UK Continental Shelf is exported overseas.
- While some of this oil may come back to the UK after being refined abroad, it is not clear how much this will be, or the impact it will have on our energy security.
- Additionally, as prices for oil and gas are set globally, domestic fuel bills will not be reduced by this decision.
- The unlimited extraction of fossil fuels is not consistent with Scotland's ambitious climate obligations but we also have to ensure a planned and fair transition that leaves no one behind.
- Our focus must be meeting our energy security needs, reducing emissions and ensuring a just transition for our oil and gas workforce as North Sea resources decline.
- The Scottish government is absolutely committed to a just transition and we are not waiting we are already acting, for example, through our ten year £500 million just transition fund, taking workers with us on our journey to net zero and working alongside trade unions.

#### Decisions on oil and gas exploration and licensing remain reserved to the UK Government

- We have previously called on the UK Government to hold a four nations' discussion to agree the Climate Compatibility Checkpoint process a call which was ignored.
- It is disappointing that the Climate Compatibility Checkpoint introduced by the UK Government is not transparent and lacks teeth, demonstrating that the UK Government is not serious about the climate crisis.
- Instead of licensing more fossil fuel extraction, the UK Government should be encouraging investment in renewables and supporting a just transition for our energy sector and for Scottish households and businesses.

# We are committed to a just transition for Scotland's energy sector

- That means simply stopping all future activity overnight is wrong.
- It could threaten energy security while destroying the very skills we need to transition to the new low-carbon economy.
- Through our draft Energy Strategy and Just Transition Plan, we have set out a clear pathway to deliver on global commitments and capitalise on the enormous opportunities offered by becoming a net zero economy.

#### Our oil and gas workers, and their vital skills, will be essential to the transition

- We need to harness the skills, talent, and experience located in the North East to support the buildout of low carbon technologies in Scotland. The Scottish Government is absolutely committed to a just transition, and ensuring we take workers with us on our journey to net zero.
- With the right support, the number of low carbon jobs is modelled to rise from 19,000 in 2019 to 77,000 by 2050 as the result of a just energy transition, delivering a net gain in jobs across the energy production sector overall.
- In addition to energy production jobs, we expect significant potential for employment and economic benefits from the wider economy as we move to net zero throughout transport, heat, and manufacturing sectors.

#### **OFFSHORE WIND – CORE BRIEF**

#### TOP LINES

Scotland's natural resources, skilled offshore workforce, excellent port structure and strong innovation hub, make Scotland one of the best places in the world to develop offshore wind and its supply chain.

- ScotWind is the world's largest commercial round for floating offshore wind and puts Scotland at the forefront of offshore wind development globally.
- The INTOG leasing round is a 'first of its kind' with 13 successful applicants and is the next step in realising another world leading opportunity for Scotland's energy transition.
- Expansion of our offshore wind energy generation capabilities in the coming years provides a fantastic opportunity to support an energy transition which not only delivers on our climate obligations, but which ensures a fair and just transition for the energy sector and wider industry.
- We are committed to maximising the public benefits of our renewables revolution and we will explore all options open to us to do so.

#### SUPPLY CHAIN AND JOBS

# We are determined to maximise the economic opportunity for the Scottish supply chain from our offshore wind potential.

- It is widely accepted that offshore wind represents a significant opportunity to create thousands of good Scottish jobs.
- We want to ensure a just transition that takes our existing skilled workforce and supply chain with us.
- We welcome the commitment of developers to invest an average projection of £1.5 bn in Scotland per project across the 20 ScotWind offshore wind projects.
- A Strategic Investment Model (SIM) has been established with the aim of enabling a move from project-led to sector level investment that better supports growth in port and supply chain capacity and capability.
- We will drive forward offshore wind skills development working with stakeholders to focus on the opportunities for diversification and skills transfer from our oil and gas sector, in line with our commitment to a Just Transition.
- The Green Jobs Fund will make £100m of capital investment available to businesses and supply chains across Scotland to help create new green jobs.
- The latest report from the Offshore Wind Industry Council (OWIC) [June 2023], predicted jobs in this sector in the UK could grow to over 100,000 by 2030.
- This OWIC report also shows a 4% increase in offshore wind jobs compared to 2021/22, showing that the sector currently supports over 32,000 jobs, almost 30% of which are in Scotland.

#### CURRENT AND POTENTIAL PIPELINE

- Scotland has 2.2 GW of operational offshore wind. In the pipeline there is 2.4 GW under construction, 1.1 GW awaiting construction, and 4.2 GW of projects in planning ahead of the ScotWind and INTOG projects.
- ScotWind reflects very significant market ambition for offshore wind in Scottish waters around 28 GW across 20 projects.
- The INTOG leasing round could also potentially add around 5.5 GW of capacity up to 449 MW for innovation projects and 5 GW for targeted oil and gas decarbonisation.
- This means that subject to planning and consenting decisions and finding a route to market, we have a current reported potential pipeline of over 38 GW of offshore wind projects, on top of the 2.2 GW which is currently operational.
- We continue to engage with UK Government to ensure that improvements to grid infrastructure are planned and carried out to help maximise the opportunity Scotland offers through renewable energy.

# AMBITION

# Our Offshore Wind Policy Statement (2020) set out the Scottish Government's ambition for 8-11 GW of offshore wind in Scotland by 2030.

- We consulted on setting a further ambition for 2045 through the draft Energy Strategy and Just Transition Plan.
- The final Plan will be published once we have conducted a thorough review of the consultation responses including independent analysis and engaged with the full range of stakeholders.

#### SCOTWIND

# ScotWind is the first devolved leasing round for offshore wind development in Scottish waters, and the first leasing round in Scotland in a decade.

- The conclusion of the leasing auction and the clearing process is a huge vote of confidence in Scotland.
- ScotWind reflects very significant market ambition for offshore wind in Scottish waters and will deliver over £750m in revenues to the public purse in initial option fees.
- In addition, ScotWind could potentially raise several billion pounds more in rental revenues when projects become operational.
- The leasing fees reflect the challenging conditions for many projects in Scotland in particular the depth of water that requires the deployment of more advanced, and more expensive, floating wind turbines.
- The process undertaken has produced a leasing round focused on quality and deliverability of bids, and the long term prize of supply chain investment which promises to transform the Scottish economy over decades and to provide the energy transition required to achieve net zero by 2045.

### INNOVATION AND TARGETED OIL & GAS (INTOG) DECARBONISATION

INTOG presents significant opportunities to decarbonise oil and gas production in Scotland while, crucially, enabling the offshore wind sector to expand, innovate and drive forward Scotland's ambition to be a renewables powerhouse.

- The projects offer a significant potential revenue stream for the Scottish Government, amounting to up to £261m in option fees if these are converted to full option agreements, following adoption of the offshore wind Sectoral Marine Plan.
- Scottish Ministers will consider in due course how the INTOG revenues should be invested to maximise the benefits for the people of Scotland.
- Oil and gas continues to play an important role in our economy and it is therefore vital that the existing energy industry decarbonises as rapidly as possible.
- This is a huge opportunity for existing offshore oil and gas platforms to reduce their emissions by using electricity generated directly from local wind turbines and to meet the targets in the North Sea Transition Deal.

#### COMMUNITY BENEFITS

<u>The draft Energy Strategy and Just Transition Plan, published on 10 January 2023, makes</u> <u>clear that we encourage developers to offer community benefit and shared ownership</u> <u>opportunities as standard on all renewable energy projects – including repowering and</u> <u>extensions to existing projects.</u>

• The Scottish Government is currently reviewing our Good Practice Principles for community benefit from offshore renewable energy developments ahead of public consultation in due course.

# PLANNING AND CONSENTING

We will continue to enhance Scotland's place as a world-leading destination for offshore wind investment, including updating guidance to further streamline offshore wind consenting processes.

- We will ensure the most efficient management of both pre-application and post-consent processes to shorten timeframes where possible.
- Through our sectoral marine planning process we are working with stakeholders to consider the potential impacts on the marine environment and other marine sectors from both the ScotWind and

INTOG leasing rounds, as well as the mitigation and management that will be required to support the ambitious scale of development.

- Our Sectoral Marine Plan, due to be delivered in 2024, will set the course for the overall delivery of ScotWind and INTOG, maximising deployment in Scottish waters whilst protecting marine users and our environment
- Our Scottish Marine Energy Research programme (ScotMER) is also delivering £2.8m in new research projects this year that will address offshore wind evidence gaps and reduce uncertainty to help support the planning and consenting processes

## UK GOVERNMENT LEGISLATIVE REFORMS

The UK Government (UKG) is progressing several major reforms to existing habitats regulations assessment (HRA) and environmental impact assessment (EIA) processes for offshore wind projects. These reforms are contained in the UK Energy Bill and the Levelling-up and Regeneration Bill.

- Our existing planning, licensing and consenting processes have delivered for the scale of development to date, however, wider reform is required to environmental legislation and our consenting regime to support the major contribution our offshore wind programme (including ScotWind) will make to Scottish and UK net zero commitments, and our energy security and supply chain ambitions.
- We continue to call for the UK Government to find a legislative solution to reform the consenting regime in Scotland and enable decisions to be accelerated.
- We are concerned that the UKG's proposed reforms risk slowing planning and consenting in Scotland, adding complexity for industry and stakeholders, undermining investment decisions and the opportunity for economic growth.
- Furthermore, the reforms as currently drafted create a significant risk of UK Ministers encroaching on current devolved competencies and functions of Scottish Ministers.
- Our primary position remains that a fit for purpose licensing and consenting regime for offshore wind should be achieved through full legislative devolution.
- Scottish Ministers must, as a minimum, be able to maintain all existing devolved and executively devolved functions and responsibilities currently undertaken for offshore wind licensing and consenting in Scotland.
- In the meantime, we will continue to use all of the powers at our disposal to ensure that our consenting processes are as robust and as agile as possible.

#### STAKEHOLDER ENGAGEMENT

# We will continue to work with all stakeholders – including fishers - to ensure a collaborative approach in the development of all offshore wind projects.

- Potential applicants have a duty, through the licensing and consenting processes, to work with affected marine users, including fishing representatives, when taking forward project plans.
- Fishers and their representative organisations are key stakeholders and have been engaged in the Sectoral Marine Planning process through representatives on our steering groups and through consultation.
- Our sectoral planning process seeks to avoid or minimise impact from offshore wind development to the environment and other marine sectors through evidence and extensive stakeholder engagement. Including extensive engagement with fishers up and down the coast and islands of Scotland.

#### INTERNATIONAL ENGAGEMENT & STRATEGIC PARTNERSHIPS

# Scotland has a wealth of pioneering expertise to share with international partners, and our project pipeline offers supply chain opportunities as well as a top market for wind technologies and new port infrastructure.

- With scale, offshore engineering heritage, an extensive network of ports and strong innovation clusters, Scotland will be at the heart of the Europe's energy transition, and future energy security for decades to come.
- To fully maximise delivery, collaboration and strategic partnerships will be key.

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- In Scotland, we have developed the Strategic Investment Model, working with public and private sector partners to move from project-led to sector level investment that better supports growth in port and supply chain capacity and capability.
- At an international level it will take governments working together, learning together, businesses growing together, and ideas being shared between all of us to succeed.

# OFFSHORE WIND INTERNATIONAL COLLABORATIONS AND AGREEMENTS

- On 8 November 2021, Scotland signed a Memorandum of Understanding with Denmark, with main areas of focus on eating networks/district energy and energy efficiency in buildings and industry; and wind and hydrogen as prospective areas of cooperation. Picking up prospective areas of collaboration was explored during Minister for Energy and Environment's visit to Denmark in September.
- On 4 August 2023, Scotland and Brittany signed a Memorandum of Understanding to facilitate the exchange of knowledge and best practices for Scottish companies engaged in offshore wind projects off the coast of Brittany.
- SG officials are represented on the working groups for the UKG-signed North Seas Energy Cooperation (NSEC), facilitating collaboration on development of offshore renewable energy and grid infrastructure, and delivery of 18GW of electricity interconnector capacity across the North Sea by 2030 (current capacity is 8.4GW).

### CONTRACTS FOR DIFFERENCE ALLOCATION ROUNDS

# The absence of offshore wind from the latest round (AR5) signals that the UK Government has failed to recognise the current market conditions within the sector and offer contracts accordingly.

- The outcome raises serious questions about the UK Government's approach to safeguarding energy security, breaking our reliance on imported energy and, critically, doing everything possible to ensure the energy sector can capitalise on the enormous economic and societal opportunities.
- At a time when energy bills are still nearly twice what they were two years ago, it is illogical that the UK Government is not investing further in one of the cheapest forms of energy at its disposal and yet is willing to pour hundreds of millions of pounds into a new nuclear energy site which will take years to come online, produce costlier electricity, and yet generate no more power than the projects awarded contracts today.
- We urge the UK Government to listen and engage with industry and take urgent action to ensure that the approach taken to AR6 reflects and addresses the concerns that have been raised on key issues such as strike price and to ensure they allocate sufficient budget to deliver projects at scale.

## Hydrogen top lines

- 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 coming years to 2026.
- Scotland is creating a hydrogen economy that will provide economic benefit and a renewable and low carbon source of energy to help meet our net zero ambitions.
- We were the first of the nations of the UK to publish a policy statement on hydrogen, setting out an ambition to generate 5GW of renewable and low-carbon hydrogen by 2030, and 25GW by 2045.
- Our Hydrogen Action Plan, published December 2022, sets out the strategic approach and actions required to deliver that ambition over the course of this Parliament, supported by a programme of capital investment designed to accelerate and maximise the production of renewable hydrogen in Scotland.
- These actions intend to help put Scotland on the pathway to becoming a leading nation by 2045 in the production of competitive and sustainable hydrogen as well as help securing Scotland's future as a centre of international excellence in areas such as innovation, skills and supply chain.
- In the Action Plan, we refresh our commitment to providing the supportive policy and regulatory environment required to enable Scotland to take a pioneering role in a growing global industry and to support our vision for Scotland to become a leading hydrogen nation in the production of reliable, competitive, sustainable hydrogen.
- The action plan is also clear that we are keen to play our role in the development of hydrogen in the UK, European and international markets.
- A new chapter dedicated to 'Scotland's Hydrogen Export Ambitions' seeks to highlight the scale of the export opportunity, Scotland's competitive advantage and the initial actions we will take at home and abroad to support Scottish companies to participate in and benefit from the development of the international hydrogen market.

#### Export & trade opportunity

- Over the next few years, we will focus on taking action to secure the role of Scottish companies in the global hydrogen supply chain, to work with our international partners to share expertise and develop the sector more quickly, and to ensure Scotland is prepared to play a key role in meeting the growing demand for hydrogen from import countries in Europe.
- 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 global demand for hydrogen.
- The final Hydrogen Action Plan, published in December 2022, sets out the strategic approach and actions required to support our vision for Scotland to become a leading hydrogen nation in the production of reliable, competitive, sustainable hydrogen.
- Scotland's extensive renewable resources means we are well-placed to ensure long-term security of supply of green hydrogen in Europe. Scotland is just 700km away from the Netherlands and 750km from the North German coast.
- We are keen to develop 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.
- The economic impact scenarios developed as part of our Scottish Hydrogen Assessment Project suggest that in the most ambitious scenario, establishing Scotland as an exporter of green hydrogen to Europe could result in a £25 billion annual gross contribution to Scotland's Gross Value Added (GVA) with over 300,000 jobs supported by 2045.
- Our economic analysis also concludes that Scotland has the potential to deliver up to 126TWh of green hydrogen per year by 2045 (3.3 Mt), with up to 94TWh (2.5 Mt) of hydrogen for export to Europe and the rest of the UK.
- Countries such as Germany have already identified a need to import green hydrogen and are taking actions now to secure partnerships with countries to supply hydrogen and to work together

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on research and technologies. Germany have brokered agreements on hydrogen with Canada, Morocco, Saudi Arabia, UAE, Australia, Chile, Tunisia and Japan. The development of international hydrogen partnerships has been further accelerated over the last months due to the war in Ukraine.

• The hydrogen export opportunity will benefit Scotland and the UK, but it is our view that Scotland and the UK can only realise these economic opportunities if we act quickly to put in place the necessary policy, regulatory and financial environment, relationships and support to develop robust supply chains, upskill our people and lay the groundwork to unlock investment and export opportunities.

### Hydrogen Sector Export Plan (HSEP)

- We are working closely with industry and international partners over the coming months to develop our Hydrogen Sector Export Plan, that will set out the steps needed to realise Scotland's export potential.
- The Hydrogen Sector Export Plan will consider the short-term export opportunities around skills and the supply chain, as well as the economic opportunity for Scotland represented by the export of renewable hydrogen in the longer term.
- To support the development of the Hydrogen Sector Export Plan, the Scottish Government have commissioned research to investigate low-carbon hydrogen demand scenarios in North-West European regions and sectors out to 2045.
- This work will sit alongside internal research being conducted on the economic competitiveness of hydrogen in various sectors and end-uses, such as for aviation transport or for refineries, to establish the most likely (sectoral/end-use) off-taker markets for hydrogen and the current best estimates for the likely size of those markets.
- Research has also been commissioned to map the key markets and opportunities for Scottish hydrogen supply chain goods and services.
- Together, this research will provide a robust evidence base demonstrating economic opportunity for hydrogen in Europe according to currently available data.

#### Ports and Harbours

- With Scotland well placed in terms of proximity and infrastructure connectivity to key hydrogen import locations in Northern Europe, we are continuing to support tangible industry-led projects that look to explore and demonstrate the delivery of hydrogen and hydrogen products from Scottish ports into Northern Europe.
- We all need coherence in transport and infrastructure planning Scotland is already reviewing our own ports and terminal infrastructure preparedness for hydrogen export.
- Inverness and Cromarty Firth Green Freeport and Forth Green Freeport have been jointly selected by the Scottish and UK governments to become Scotland's first Green Freeports.
- Inverness and Cromarty Firth Green Freeport and Forth Green Freeport will support businesses to create high-quality, well-paid new jobs, promote growth and regeneration, and make a significant contribution to achieving our net zero ambitions, including through the development of hydrogen opportunities.
- 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.
- This includes working with the Port of Rotterdam and other strategic partners on Phase 2 of the Liquid Organic Hydrogen Carrier (LOHC) for Hydrogen Transport from Scotland Project (LHyTS), led by NZTC. This will carry out a feasibility assessment for a pilot trial for the shipment of LOHC from Scotland to the northern European mainland via Rotterdam, laying the foundations for establishing the viability of a strategic export route for hydrogen between Scotland and the EU.
- We want to further deepen this collaboration to ensure that our export infrastructure is compatible with key import infrastructure in Northern Europe.
- 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.

# Energy Strategy and Just Transition Plan (ESJTP) top lines

- We are fully committed to the delivery of a credible Energy Strategy and Just Transition Plan that provides policy certainty for consumers, workers, businesses and investors.
- A comprehensive draft Energy Strategy and Just Transition Plan was published for consultation on 10 January 2023, setting out our vision for a future net zero energy system.
- Realising this vision will deliver affordable, secure and clean energy, and benefit communities across Scotland by providing high quality jobs and economic opportunities.
- The consultation closed in May 2023 with over 1500 responses and on 28 September we published an independent consultation analysis.
- The views of those consultees are vitally important, and it is critical that we take the time needed to respond to the views expressed.
- Ahead of the publication of the final strategy, work to deliver a just transition to a net zero energy system continues at pace.
- We have just published our Onshore Wind Sector Deal and by the end of this year we expect to publish our finalised Solar Vision and draft Bioenergy Policy Statement.

# Energy Strategy and Just Transition Plan (ESJTP) – Background

- The draft Energy Strategy and Just Transition Plan has been informed by a programme of independent work and analysis to better understand our energy requirements as we transition to net zero.
- The draft ESJTP lays out over 150 actions, as well as consulting on further actions, to help maximise a just transition to net zero for our economy, communities, business and workers.
- Our ambition to grow renewables in Scotland by an additional 20GW of renewable generation could power every house in Scotland for over 7 years.
- This means we can not only generate enough cheap green electricity to power Scotland's economy, but also export electricity to our neighbours, supporting jobs here in Scotland and the decarbonisation ambitions of our partners.
- We must continue to change the way we use energy reducing demand across our heat and transport sectors and replacing fossil fuel demand with zero carbon technologies.
- As oil and gas production naturally declines, jobs in low carbon energy production could increase to 77,000 by 2050, delivering a 7,000 net increase in jobs across the energy production sector compared with 2019.
- The draft Energy Strategy and Just Transition Plan sets out the actions the UK Government needs to take action and work with Scottish Government under the current constitutional settlement to deliver Scotland's full energy potential.
- <u>This year we consulted on the draft Energy Strategy and Just Transition Plan, setting out our vision for a future net zero energy system.</u>
- Scotland has the skills, talent and natural resources with which to become a global renewables powerhouse. Our draft Energy Strategy and Just Transition Plan, published on 10 January 2023, set out our vision to achieve this.
- On 28 September we published an independent consultation analysis report alongside consultation responses, demonstrating transparency in the consultation process.
- It's critical that we respond to the views expressed and engage with a range of stakeholders as we work towards the final publication by Summer 2024, including the Just Transition Commission and Scottish Energy Advisory Board.
- The recent Programme for Government confirmed our commitment to publish and start implementing a new ESJTP to "provide policy certainty for consumers, workers, businesses and investors by setting a clear direction for the future of Scotland's energy sector and the actions that we will take to maximise the economic and social benefits from our transition to a future energy system and to ensure our energy security".
- Throughout the consultation period we have engaged with a wide range of people to ensure everyone has the opportunity to shape the energy transition.

# Carbon Capture Utilisation and Storage (CCUS) top lines

- CCUS is vital for a just transition to net zero. The Climate Change Committee describes CCUS as a "necessity, not an option" to achieve net-zero emissions.
- The development of strategically located CCUS infrastructure in Scotland's industrial clusters in Grangemouth and the North East could protect and ensure the just transition for important domestic industries into a low-carbon future, protecting jobs and utilising existing skills.
- Scotland remains among the best placed nations in Europe to deploy CCUS due to our unrivalled access to vast CO2 storage potential in the North Sea and opportunities to repurpose existing oil and gas infrastructure for CO2 transport and storage.
- The Scottish Cluster is absolutely vital for a just transition to net zero not just in Scotland, but across the UK. We do not hold all the necessary legislative and regulatory levers needed to support the Cluster, as they are not devolved.
- We welcome the UK Government's recent decision to begin due diligence discussions with Acorn, which they have reconfirmed as 'best placed' to deliver on Track 2 objectives. The Scottish Government has been urging the UK Government to commit to Carbon Capture and Storage in Scotland for well over a decade, and this decision, if long overdue, recognises the enormous potential of the Acorn Project and the Scottish Cluster. It is vital that the UK Government avoids further delays and works at pace with the Acorn Project to secure the fastest possible deployment.
- It is unacceptable that the UK Government has only committed to set out the Track 2 emitter project selection criteria "in due course" and has not provided any funding details. The Scottish Government urges the UK Government to progress this at pace to secure the fastest possible deployment of the Scottish Cluster, so that a just transition for our energy workforce can be secured, while also delivering on net zero targets.
- We welcome the recent NSTA licensing round which increases the number of Carbon storage licenses in Scottish waters to 7. These storage sites will provide significant growth and economic opportunities for CCUS in Scotland

## **Onshore wind top lines**

- Onshore wind is a cheap and reliable source of electricity generation; with Scotland's resource and our commitment seeing us lead the way in onshore wind deployment across the UK.
- The Onshore Wind Policy Statement 2022 (Dec 2022) introduced a new ambition for a minimum installed capacity of 20GW of onshore wind in Scotland by 2030.
- To ensure this ambition can be delivered and with maximum benefit to people in Scotland we have established an onshore wind strategic leadership group charged with developing a sector deal.
- The Onshore Wind Sector deal will be a shared commitment between Government and industry to deliver upon Government ambitions while growing a key sector in a way that aligns with the principles of a Just Transition.
- Scottish Government is aware that delivering this ambition will create demands on our electricity infrastructure. Networks must be able to invest quickly and ahead of need to ensure swift and efficient connections for onshore wind developments.
- The Scottish Government will continue to support and encourage shared ownership and community benefit from onshore wind, to ensure we maximise economic benefit for the people of Scotland.
- The spatial framework that the draft NPF4 sets out for renewable energy developments, will protect National Parks, National Scenic Areas, and the sensitivity of other nationally important designated sites. All renewable energy projects over 50MW will be designated as a national development in NPF4; alongside relevant supporting electricity grid transmission infrastructure.

#### OFFICIAL – SENSITIVE

# ENERGY – KEY FACTS AND FIGURES

- The equivalent of **24.0%** of total Scottish energy consumption came from renewable sources (provisional figures for 2021). A decrease from 26.4% in 2020.
- In 2020, our renewable electricity generation was equivalent to **98.1% of Scotland's gross** electricity consumption (final figures for 2020) from renewable sources rising from 89.6% in 2019.
- Final figures for 2021 indicate that the equivalent of 85.0% of gross electricity consumption was from renewable sources. This is a 13.1 percentage point decrease compared to 2020, which is due to milder weather in 2021 negatively impacting renewable electricity generation.
- Of all the electricity generated in Scotland, **57.0%** is renewable (2021) with the remainder from nuclear, fossil fuels and other generation.
- There was around a **4,000 GWh** decrease in renewable energy between 2020 and 2021. Renewable electricity contributes fourth-fifths of all Scotland's renewable energy, followed by renewable heat and biofuels transport.
- **477** renewable electricity projects with an estimated capacity of **23.0 GW** are in the pipeline (as of June 2023). **4.2** GW of these are under construction, most of which are offshore wind farms off the Moray Firth.
- 6.7 GW are awaiting construction and 12.0 GW are in planning.
- It is estimated that **56.4 TWh** of renewable electricity <u>could</u> be generated by those projects in the pipeline.
- 20.3 TWh of electricity was exported in 2022 and 1.5 TWh imported.

# Ambitions:

- Target of 6 TWh of thermal energy through **heat networks** by 2030 representing around **8%** of current heat demand.
- Ambition for a minimum installed capacity of 20GW of onshore wind in Scotland by 2030.
- Ambition to produce **5 GW** of renewable and low-carbon hydrogen by 2030 and **25 GW** by 2045

# Scottish Government Funding

- £100m capital funding to support the Hydrogen Action Plan
- £1.8 billion to accelerate heat decarbonisation this parliament, including at least £465m to support those least able to pay for transition.
- £300 million to promote roll out of zero emissions heat networks through our Heat Network Fund making capital grant funding available to private and public sector organisations.
- £75m Energy Transition Fund (ETF) will support our energy sector and the North East, over the next 5 years, to make progress on energy transition as we move toward a net zero society by 2045.
- Multi year support is being provided to every local authority in Scotland to develop Local Heat and Energy Efficiency Strategies

#### **ORKNEY LINES**

#### SINGLE AUTHORITY

- Programme for Government 23-24 includes a commitment to work with those island-only authorities who wish to develop alternative local governance arrangements.
- Ministers believe that Single Authority (SA) type models demonstrate strong potential to improve outcomes for people and make best use of available resources in some rural settings.
- We welcome the separate proposals from Orkney Islands Council, Western Isles Council and Argyll and Bute Council which reflect the local circumstances and associated challenges and opportunities in each of these areas.
- We will work with local partners to explore in detail how streamlined and strengthened governance arrangements can support deeper service integration, the shift towards prevention and community empowerment.
- SA models involve enhanced local governance arrangements and align with the principles of the Verity House Agreement.
- SA models also align with shared accountability arrangements for the National Care Service and would maintain appropriate Ministerial powers of direction.
- At present, the relationship between local government and local health services is the focal point of discussions. However, we know there is interest in the relationship with other key services.
- Models will be developed in close consultation with all stakeholders, including unions.
- The type of alternative governance arrangements set out in SA models will not require changes to staff terms and conditions or career pathways.
- The views of local communities will be vital and we will adopt a human rights based approach to policy development.
- At present, we are considering the potential of SA models in three authority areas, but this work will generate valuable learning for other geographies.

#### **Background**

In July, Orkney Islands Council voted in favour of a motion to explore alternative governance arrangements, including historic connections with Nordic countries, crown dependencies and other options for greater subsidiarity and autonomy. We expect the work which the council will now take forward to refresh and bring up to date their original SA proposal. In addition to interest from Orkney and Western Isles, Ministers have agreed to Argyll & Bute's inclusion in discussions. Shetland Islands Council does not wish to pursue a SA model at present, but will be observers in discussions.

#### FERRIES

#### Background and Context

- Scottish Ministers' direct funding responsibility and the Minister for Transport's portfolio is the Clyde & Hebrides (CHFS) and Northern Isles (NIFS) Ferry Services network. In addition and since before the establishment of the Scottish Parliament four local authorities have operated internal ferry services. All four local authorities face significant revenue funding challenges to continue to operate their services.
- Orkney Islands Council and Shetland Islands Council (SIC) operate much larger networks with fleets of 9 and 12 ferries serving 13 and 9 routes respectively to islands across their archipelagos. As you are aware wider work is ongoing in relation to the replacement of these ferries through the two Ferry Replacement Task Forces (OIC and SIC).
- The second Ministerial meeting with Orkney Islands Council (OIC) chaired by the MFT was held on 17 August 2023. The DFM and MFT have agreed to continue these meetings and the next OIC Task Force meeting will be on 9 November in Edinburgh, with DFM chairing, supported by MFT. Cllr Stockan, Cllr Heather Woodbridge (Depute Leader) and Oliver Reid will be attending. The second SIC Task Force meeting will be on 23 November in Edinburgh.

#### FERRY FUNDING – top lines

#### Revenue Funding

- Scottish Ministers are responsible for the Clyde and Hebrides and Northern Isles Ferry routes.
- The Scottish Government recognises the importance of the other ferry services in Scotland, including those internal ferries which are the responsibility of our local authorities.
- We recognise the challenge for the 4 local authorities that have responsibility for ferries, and have provided more than £178m since 2018/19 to support the running of these services.
- We are aware of the growing need for local authorities to replace aging ferry fleets and infrastructure, and while responsibility for funding replacement infrastructure does remain wholly with the councils, we are committed to continuing engagement.
- For 2022-23, we, with the agreement of COSLA, have also met local authorities' requests for the elements of ferries revenue support to be brought together into the 'Support for Inter-Island Ferries' Specific Grant. In 2023-24, a total of £41.732m has been made available to support local authority ferries, including over £15.8m for Orkney Islands Council and over £23 million for Shetland Islands Council.

The revenue funding distribution for 2023-24 was confirmed on 16 August. The DFM wrote to all 4 LAs. Grant offer letters were also issued on 16 August to all 4 LAs.

The 2023-24 Budget provides local authorities with their full revenue requests, allowing them to maintain existing services and fares.

	GAE	SG fu	nding via	a GAE ai	nd the	Specific	Grant	
	only		Specifi	c Grant		on	y	
	2017-	2018-	2019-	2020-	2021-	2022-23	2023-	Total
	18	19	20	21	22		24	since
(£million)								2018-19
OIC	4.745	10.184	9.460	10.138	12.847	13.402	15.829	71.860
SIC	6.801	11.807	12.259	11.763	17.289	17.496	23.082	93.696
ABC	0.675	0.768	0.855	1.682	1.269	1.300	1.821	7.696
THC	0.726	0.695	0.867	0.839	0.690	0.897	1.000	4.988
Total	12.947	23.453	23.442	24.422	32.095	33.095	41.732	178.239

Following engagement and agreement with the Settlement and Distribution Group and COSLA Leaders, a change has been made to the revenue funding mechanism for local authority run ferry services which means that all funding, from 2022-23 onwards, will be now provided through the Specific Grant, incorporating the previous Grant Aided Expenditure (GAE) element of the Local Government settlement. This was a key request from some local authorities and provides increased transparency on ferries funding going forward.

#### Zero Emissions Vessel and Infrastructure – UK Funding

OIC was recently successful in bidding for funding from the Zero Emissions Vessel and Infrastructure (ZEVI) project recently announced by UKG. It was awarded £15.5m for two electric ferries.

#### [REDACTED]

#### **Capital Funding**

• We are aware of the growing need for local authorities to replace aging ferry fleets and infrastructure, and while responsibility for funding replacement infrastructure does remain wholly with the councils, we are committed to continuing engagement.

- The previous Deputy First Minister already committed as part of the budget process to further work to support both Shetland and Orkney in developing their fleet replacement plans, recognising the financial challenges for both SG and these islands.
- Where opportunities are identified to work together to deliver efficiencies, we will give them due consideration. In this regard we have made an offer to all 4 local authorities to share learning from CMAL's Small Vessel Replacement Programme.

#### LOCAL GOVERNMENT FUNDING

#### 2023-24 FUNDING - ORKNEY ISLANDS COUNCIL

- In 2023-24, Orkney Islands Council will receive £89.7 million to fund local services, which equates to an extra £3.5 million to support vital day to day services or an additional 4.1% compared to 2022-23. This includes Orkney Islands Council's Special Islands Needs Allowance (SINA) of £6.8 million.
- SINA is a supplement added to the core local government finance settlement to reflect the additional costs of a local authority servicing its island communities across water.
- The council's decision to increase council tax by 10 per cent, will provide an extra £1.1 million to support services in 2023-24.
- General Fund reserves (including the Harbour Account) at 31 March 2023 were provisionally reported as £273.4 million. For context, General Fund reserve balances were £229.6 million on 31 March 2020 (pre COVID).
- The Harbour Authority Account is made up of 3 separate ring-fenced operations under Miscellaneous Pier and Harbours, Scapa Flow Oil Port and the Strategic Reserve Fund and accounts for £213 million of General Fund Reserves.

#### ICELAND – COUNTRY PROFILE

#### Population: 381,500Capital city: Reykjavik

Head of State: President Guðni Thorlacius Jóhannesson (second term as president)

Head of Government: Katrín Jakobsdóttir (Left-Green Party)

Iceland in Scotland: Kristín Hannesdóttir, Honorary Consul

**Government composition:** Three party coalition consisting of the Left Green Movement, Independence Party (centre-right) and Progressive Party (centre).

Parliament: The Althingi is a unicameral 63-seat parliament with members elected for a 4-year term.

#### Politics:

- Incumbent left-right coalition increased its majority in September 2021 elections, due to centre-right Independence Party and 5 seat increase for the centrist Progressive Party. Despite good personal ratings, PM Jakobsdóttir's Left-Green Movement lost 3 seats.
- Recent polls suggest a sharp decline in approval ratings for the current government of Katrín Jakobsdóttir. While the Independence Party still remains popular nationwide (20.8%), the combined support for the current coalition is far from the required 32-seat parliamentary majority. Meanwhile, the main opposition party (Social Democratic Alliance) has recently polled over 30%, the highest level in 14 years.

#### Hot topics

- Iceland's Finance Minister Bjarni Benediktsson resigned on 10 October after Iceland's parliamentary ombudsman ruled that he should have recused himself from decisions concerning the privatisation of Íslandsbanki due to a conflict of interests (his father owned shares). Following a mini-reshuffle, however, Mr Benediktsson who is also the chairman of the Independence Party kept a job in government and swapped places with the Minister for Foreign Affairs.
- Iceland is undergoing a period of **weaker economy and worsening financial conditions** according to the Icelandic Central Bank. Inflation of 8% and higher interest rates estimated to peak to 9.5% in the coming months are adding to the overall debt service burdens.
- According to the newest report of Statistics Iceland, **greenhouse gas emission increased by 12%** compared to last year with main sources coming from industry and aviation. Iceland has campaigned against EU legislation on aviation emission allowances which, according to the Icelandic Government, fails to consider Iceland's reliance on air transport.
- 2023 has already been a **record year for Iceland in terms of immigration.** Over 70,000 foreign citizens (18% of the population) are believed to live in the country, with unemployment of foreign nationals as high as 50%. With Iceland's immigration profile changing, the Minister of Justice announced that **amendments** need to be made to the country's **Immigration Act**, primarily to the elements that relate to international protection and regulate access to residence permits and legal support for asylum seekers.
- Icelandic Agriculture and Fisheries Minister Svandís Svavarsdóttir (who visited Scotland in September) lifted the ban on commercial **whaling** she had introduced in June. Minister Svavarsdóttir had come under intense pressure from lobby groups on both sides of a deeply divisive debate.

#### **Recent Ministerial engagement with Iceland**

- Sept 2023 FM met Icelandic PM Katrín Jakobsdóttir in the margins of the NY Climate Week.
- Sept 2023 Ms Gougeon met Icelandic Minister for Food, Agriculture and Fisheries Svandís Svavarsdóttir during the Minister's visit to Scotland.
- Aug 2023 FM met Icelandic PM Katrín Jakobsdóttir in Edinburgh.
- Jun 2023 Mr Gray met Icelandic PM Katrín Jakobsdóttir at the WEGo Forum in Reykjavik.

From: [REDACTED]
Sent: Thursday, October 19, 2023 11:14 AM
To: Minister for Energy and the Environment <MinisterEE@gov.scot>
Cc: Director of Offshore Wind <DirectorOSW@gov.scot>; [REDACTED]
Subject: Offshore Wind - lines to use on investment

#### Hi [REDACTED]

I've worked up some lines on our approach to investment following the £500m announcement this week. I thought these might be useful for the Minister to see ahead of the sessions today so she can draw on them if needed in any Q&A.

If pushed specifically on when more detail will be available the holding answer is:

'We are finalising the strategic business case that will underpin our approach and more details will be made available in due course'.

I hope this is helpful,

[REDACTED]

[REDACTED] Offshore Wind Directorate Scottish Government [REDACTED]

#### **Investment**

On Tuesday our First Minister announced a Scottish Government commitment to invest up to £500m of public sector funds over the next 5 years.

This commercial and grant investment will stimulate and support private investment in the infrastructure and manufacturing facilities critical to the growth of our world-leading offshore wind sector.

It will support market certainty, helping to create a highly productive, competitive economy, providing thousands of new jobs, embedding innovation and boosting skills.

While market certainty on supply chain is crucial, the absence of offshore wind from the latest Contract for Difference Allocation Round 5 also acts as a timely reminder that more still needs to be done to support the sector as a whole.

We are engaging with industry and the UK Government to encourage the appropriate steps to be taken to deliver a successful Allocation Round 6 and to allocate sufficient budget to deliver Scottish projects at scale. We are also actively engaging with them to communicate the need to bolster grid infrastructure at pace.

This announcement is important. It underlines the Scottish Government's absolute determination to truly maximise the economic opportunities and benefits from our offshore wind potential.

A huge part of that will be ensuring a just transition that takes our existing skilled workforce and supply chain with us. We will work closely with industry to focus on the opportunities for skills development and diversification from our oil and gas sector, in line with our commitment to a Just Transition.

And we will ensure we invest this capital in the projects that are going to help us deliver our priorities and bring maximum economic impact.

To do this we are developing a framework which will achieve strategic alignment of public sector investment in offshore renewables supply chain development.

This will mean that, once key infrastructure and supply chain requirements have been identified for the successful and timely delivery of projects in Scottish waters, public sector partners will adopt a consistent and agile approach to any strategic investment requests and trade opportunities, removing complexity and streamlining our approach for developers and investors alike.

We have also already developed our Strategic Investment Model, working with public and private sector partners to move from project-led to sector level investment that better supports growth in port and supply chain capacity and capability.

And of the 45 applications we have so far, 41% are for port infrastructure projects and the remainder are for other types of supply chain investments.

This highlights the huge opportunity there is for collaboration and demonstrates there is an strong appetite from partners to take a strategic approach to delivery of infrastructure and port investment as well as manufacturing and fabrication.

Ultimately, this whole collaborative, streamlined, consistent approach to investment will provide the building blocks for us to work closely with private sector partners to deliver a successful offshore renewables sector in Scotland, maximise our economic opportunities, achieve our net zero ambitions and secure our future as a greener, fairer country.

From: [REDACTED]
Sent: Tuesday, October 17, 2023 4:57 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Gillian Martin and Carlos Lange at the artic conference next week

#### [REDACTED]

Please find attached briefing for a potential meeting between FFI and Ms Martin while we await confirmation from FFI regarding the slots that have been offered.

I have also attached the note from the meeting that FM had with FFI during NYC Climate Week last month for the Minister's awareness.

Please let me know if you require anything further and many thanks for accommodating this last minute request.

[REDACTED]| Hydrogen Policy & Project Manager | Hydrogen Evidence and Engagement | Energy Industries Division | The Scottish Government | Victoria Quay | Edinburgh | EH6 6QQ | [REDACTED]

#### BRIEFING FOR THE MINISTER FOR ENERGY AND THE ENVIRONMENT

### **MEETING WITH Fortescue Future Industries (FFI)**

#### **Tuesday 19 September 2023**

Key message What	Scotland is a key location in the UK for investment in renewable (green) hydrogen solutions and production. Scotland is committed to becoming net zero by 2045. The country is keen to support opportunities and will work with all partners who can help us address the global climate emergency. Meeting with Fortescue Metals Group's renewable energy arm Fortescue
	Future Industries (FFI). Overview: Fortescue Metal Group (FMG)- Parent company Fortescue Future Industries (FFI)- subsidiary
Why	Introductory meeting with Carlos Lange, Fortescue's GM for Europe. The meeting follows up a meeting between Mark Hutchison (MH), CEO of FFI and the First Minister during New York Climate Week to discuss green hydrogen production investment in Scotland (see <b>Annex C</b> )
	Andrew Forrest Executive Chairman, Fortescue Metals Group, had previously also met then First Minister Sturgeon on 27 September 2022 (see <b>Annex C</b> )
Who	Carlos Lange, Fortescue Future Industries General Manager for Europe
Where	Location and timings to be confirmed
When	Location and timings to be confirmed
Likely themes	<ul> <li>Scotland's hydrogen ambition</li> <li>Update on Fortescue's Energy plans for investing in Scotland</li> <li>New O&amp;G licences that may threaten Fortescue's Energy potential investment plans</li> <li>Delivering on the ambition - legislation &amp; policy challenges perceived from an entrepreneurial new potential investor</li> </ul>
Media	
Supporting officials	SDI officials - TBC
Attached documents	Annex A: Biographies Annex B: Key messages / Suggested Agenda Annex C: Update of previous discussions Annex D: Background Annex E: Policy details/ Lines

#### Annex - A- Biography



Carlos Lange, Fortescue Future Industries General Manager for Europe

- Carlos Lange is a seasoned business leader with 25+ years of international experience in technology driven companies across diverse sectors like Energy, Power Generation, Renewables, Chemicals & Petrochemicals, Engineering and Construction (EPC).
- Mr Lange was appointed FFI President for Europe in March 2023 to focus on how the company can support a rapid and sustainable uptake of green energy across Europe.

#### **Key Messages**

- 1. FFI and FMG are serious investor and FMG is an important global player in the emerging green hydrogen sector.
- 2. We have strong relationships established with FFI's team in Scotland.
- 3. We have awarded £150k to FFI's local team in Scotland to help advance [REDACTED]
- 4. We are keen to continue working closely with FMG and others going forward to help realise the opportunities that hydrogen could bring to Scotland.

#### Annex B – Suggested Agenda

# 1. Fortescue's net zero ambitions match with the Scottish Government's ambitions of being a progressive renewable country with ambitions for 5GW of renewable and low-carbon hydrogen production capacity by 2030

- The company's near-term potential projects is more focused on [REDACTED]
- The Minister should ask for update on the potential for Scotland in Fortescue long term plans as an investment location.
- Establishing hydrogen production from onshore wind and the development of regional hydrogen production hubs linked to offshore wind are part of the critical path towards achieving our ambition of 5GW of installed hydrogen production capacity by 2030 [REDACTED]

#### 2. Hydrogen and offshore wind

# Context – Offshore wind is critical to the development of large scale green hydrogen production in Scotland for export to the UK and Northern Europe

- The UK Government must listen, engage with industry and take urgent action to ensure that Round 6 properly reflects the fundamentally important role renewable energy has in a just transition to net zero – not just in Scotland, but across the UK.
- The absence of offshore wind from the latest round signals that the UK Government has failed to recognise the current market conditions within the sector and offer contracts accordingly.
- The outcome raises serious questions about the UK Government's approach to safeguarding energy security, breaking our reliance on imported energy and, critically, doing everything possible to ensure the energy sector can capitalise on the enormous economic and societal opportunities.
- At a time when energy bills are still nearly twice what they were two years ago, it is illogical that the UK Government is not investing further in one of the cheapest forms of energy at its disposal and yet is willing to pour hundreds of millions of pounds into a new nuclear energy site which will take years to come online, produce costlier electricity, and yet generate no more power than the projects awarded contracts today.

#### 3. Challenge of new UK O&G permits licencing

• Andrew Forrest - Executive Chairman, Fortescue Metal Group - has been a very vocal opponent to the new oil and gas licences that the PM confirmed recently would be granted, threatening to pull investment out of the UK.

# On 31 July the Prime Minister announced the decision to grant 100 new North Sea oil and gas licences.

- The unlimited extraction of fossil fuels is not consistent with Scotland's ambitious climate obligations, but we also have to ensure a planned and fair transition that leaves no one behind.
- That means simply stopping all future activity overnight is wrong.
- Our focus must be meeting our energy security needs, reducing emissions and ensuring a
  just transition for our oil and gas workforce as North Sea resources decline.

• The Scottish government is absolutely committed to a just transition - and we are not waiting - we are already acting, for example, through our ten year, £500 million Just Transition Fund, taking workers with us on our journey to net zero and working alongside trade unions.

#### We are committed to a just transition for Scotland's energy sector.

- The unlimited extraction of fossil fuels is not consistent with Scotland's ambitious climate obligations, but we also have to ensure a planned and fair transition that leaves no one behind.
- That means simply stopping all future activity overnight is wrong.
- It could threaten energy security while destroying the very skills we need to transition to the new low-carbon economy.
- Through our draft Energy Strategy and Just Transition Plan, we have set out a clear pathway to deliver on global commitments and capitalise on the enormous opportunities offered by becoming a net zero economy.
- Our focus must be meeting our energy security needs, reducing emissions and ensuring a just transition for our oil and gas workforce as North Sea resources decline.
- The Scottish government is absolutely committed to a just transition and we are not waiting we are already acting, for example, through our ten year £500 million just transition fund, supporting businesses, workers and communities to transition to net zero.

# Decisions on oil and gas exploration and licensing remain reserved to the UK Government.

- We called on the UK Government to hold a four nations' discussion to agree the Climate Compatibility Checkpoint process a call which was ignored.
- It is disappointing that the Climate Compatibility Checkpoint introduced by the UK Government is not transparent and lacks teeth, demonstrating that the UK Government is not serious about the climate crisis.
- Instead of licensing more fossil fuel extraction, the UK Government should be encouraging investment in renewables and supporting a just transition for our energy sector and for Scottish households and businesses

# 4. Legislation & policy change – Fortescue believe this is required to accelerate Scotland's hydrogen ambition

Points likely to be raised:

- FFI have strong views on grid constraints in that they need to be better addressed, and transmission charges in Scotland need to be revisited in order to ensure hydrogen production at scale.
- Power price is still one of the highest in Europe and serious changes need to occur to make green hydrogen competitive.
- Hydrogen pipelines [REDACTED] needs to be established to support the export of hydrogen at scale.

#### Suggested points to make:

• The first meeting of the Scottish Government's Hydrogen Industry Forum was held earlier this month. The Forum provided a platform for important industry insight of the issues and

challenges faced by the emerging hydrogen sector, and to assist in unlocking solutions and inform future policy.

• The Scottish Government have funded a Hydrogen Backbone Link project to assess the potential to connect Scotland via pipeline to Europe – Phase 1 is complete and Phase 2 is underway – we are engaging with FMG's local team on the progress of this initiative.

#### **Expectations/Desired Outcomes**

- Development of a strong relationship between Mister for Energy and Environment & potential new inward investor to Scotland around shared beliefs for addressing climate change and the growth of the hydrogen sector.
- Opportunity to hear the inherent opportunities and challenges from a new potential inward investor to Scotland could offer different perspectives.

#### Annex C - Update of previous discussions

### Scottish Hydrogen Industry Forum – 5 October 2023

- First meeting took place on 5 October in Edinburgh, looking at the role of hydrogen in electricity system.
- The Forum has 13 industry members, including FFI which is represented by [REDACTED]
- Objective of the Forum is to provide an opportunity to engage with industry on the development of the hydrogen economy and gather expert technical and commercial insights which could help inform SG policy and engagement with the UKG on the development of the hydrogen economy.
- Key takeaways included: first and foremost addressing barriers to investibility, such as access to power in respect to infrastructure and costs, followed by barriers to accessible H2 storage, and unlocking end users demand/use.
- Other identified issues included a common strategy and architecture for Regional H2 Hubs and pipeline transportation of Scottish H2 to UK users/Europe.

### On 19 September 2023 – the First Minister met with Mark Hutchison, CEO of FFI and Jonny Heron (JH), Chairman's Office, FFI during New York Climate Week

- This meeting took place as part of the First Minister's NYC Climate Week programme. Dr Andrew Forrest, Chairman of FFI, was due to attend but had to attend to a family emergency in Australia. He had previously met the former FM.
- The meeting focused on climate leadership, with FFI showing it in the private sector and Scotland showing it on the international stage.
- [REDACTED]
- Mr Hutchison stated that [REDACTED]
- MH mentioned that Germany is heavily subsidising hydrogen and asked whether Scotland could speak directly to Germany about agreeing subsidies for hydrogen produced in Scotland, which would make an investment more of an interesting proposition. MH offered FFI support in any discussions with the German government on this.

# On 27 September 2022 – then FM (Ms Sturgeon) met with Andrew Forrest in FM's Parliamentary office

 Mr Forrest discussed his company's plans to become a major player in the green hydrogen production sector and is interested in exporting hydrogen to Germany from a variety of countries – including possibly Scotland.

- Mr Forrest initially wanted a 'taskforce' of sorts set up between his company and Scottish Government to explore and accelerate large scale green hydrogen production in Scotland with some undefined 'exclusivity' mentioned in discussions – his local team were advised that this wasn't something that could be taken forward.
- Good working relationships with Mr Forrest's on-the-ground team have been established following his meeting with Ms Sturgeon (see below for details).

### **Operational level discussions with FMG**

- Scottish Government recently awarded £150k innovation funding through the Hydrogen Innovation Scheme to FMG to help take forward [REDACTED]
- Regular discussion with the operational team at FMG have been ongoing since Feb/March 2022. Relationships are established between SE/SG officials and FMG and several visits to key potential development sites have been facilitated over the past year alongside introductions to key energy industry stakeholders.
- FMG have been slower to move forward in a committed way in Scotland than first thought but they recently recruited a small team of four people who are based in Scotland. [REDACTED]
- FFI Scotland team continue to be a supportive partner in moving forward discussions

#### Annex - D: Background Fortescue

#### Fortescue

- Fortescue, the fourth largest iron ore producer globally, is an Australian publicly listed company, but founder and executive chairman Andrew Forrest retains significant ownership in the business and under his tenure the company is not only set on decarbonising Fortescue's mining operations but in being an exemplar in and diversifying into green energy initiatives.
- Fortescue's iron ore operations is fully owned and integrated and has proven ability in innovation and efficiency – it is intent on leveraging this experience to become a green energy powerhouse to not only produce steel in Australia, but through its subsidiary, Fortescue Future Industries (FFI), in decarbonising hard-to-abate sectors, including Fortescue's operations by 2030, using hydrogen, ammonia and battery power. (Note, the company is in the process of restructuring, with FFI becoming more fully integrated into the company's operations, by the creation of a separate division Fortescue, to sit alongside Fortescue Mining.)
- FFI has been investigating how best to provide green hydrogen, the MOUs and statement of intent signed with a number of countries across the globe, including Azerbaijan, Indonesia, Namibia, Kenya and Brazil.
- The company is targeting Final Investment Decision this calendar year on five projects most advanced are the ammonia plant in Gibson Island in Australia; and the recent acquisition of green hydrogen operation in Phoenix for the US domestic market. The company is also investigating delivery of green ammonia/hydrogen to Europe from Norway, Australia and Kenya in order to satisfy the partnership deal signed with E.On in 2022 to deliver up to five million tonnes per annum of green, renewable hydrogen to Europe by 2030.
- In the UK, Fortescue acquired Williams Advanced Engineering (who had diversified away from the F1 team) in the UK for £164m in Jan22 due to their joint interest in growing markets for green industrial transport – particularly zero emission mining trucks. Now rebranded as WAE Technologies, the company announced in Jan23 it would create an EV battery factory in Oxfordshire with a focus on heavy good vehicles and creating 300 jobs.
- In annual results to June 2023, revenues were down 3% to US\$16.9bn, but profits were significantly down due to China's economic downturn requiring less iron ore and a one-off impairment charge to do a flagship magnetite growth project being hit with rising interest rates and industry wide inflation. There followed a number of senior execs stepping down.
- The company has shown interest in investing in Scotland since meetings during COP26.

#### Fortescue in Scotland

- The company has set up a small office in Aberdeen with four employees supported by colleagues from Australia.
- With SDI support, the company has investigated 13 potential hydrogen sites across Scotland.
- Current prices for green energy, and lack of infrastructure to export hydrogen to Europe, has led to the company taking a more conservative approach to setting up large scale hydrogen production sites in Scotland in the speed first envisioned. However, their interest in the long term remains high and is focused on [REDACTED]

[REDACTED]

#### Annex - E- Lines NZTC funding for H2 Backbone link info

#### H2 Backbone link

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.

Phase 1 of the Hydrogen Backbone Link project involved a series of studies which 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.

Phase 2 of the Hydrogen Backbone Link project will continue to investigate hydrogen pipeline options for Scotland, further assessing the requirements to deliver a hydrogen backbone link at scale.

#### LOHC

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.

This includes working with the Port of Rotterdam and other strategic partners on Phase 2 of the Liquid Organic Hydrogen Carrier (LOHC) for Hydrogen Transport from Scotland Project (LHyTS), led by NZTC. This will carry out a feasibility assessment for a pilot trial for the shipment of LOHC from Scotland to the northern European mainland via Rotterdam, laying the foundations for establishing the viability of a strategic export route for hydrogen between Scotland and the EU.

We want to further deepen this collaboration to ensure that our export infrastructure is compatible with key import infrastructure in Northern Europe and 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.

	OFFICIAL – SENSITIVE TH FORTESCUE FUTURE INDUSTRIES (FFI)
Minister	First Minister
Type of	
engagement	
Date	19 September 2023
Who	Mark Hutchison (MH), CEO of FFI, Jonny Heron (JH), Chairman's Office, FFI
Key Points	• This meeting took place as part of the First Minister's NYC Climate Week programme. Dr Andrew Forrest, Chairman of FFI, was due to attend but had to attend to a family emergency in Australia. He had previously met the former FM.
	• The meeting focused on climate leadership, with FFI showing it in the private sector and Scotland showing it on the international stage.
	[REDACTED]
	<ul> <li>MH stated that FFI see Scotland as a potentially massive opportunity [REDACTED]</li> </ul>
	<ul> <li>MH noted that FFI was bullish about the demand for green hydrogen, even just as ammonia for fertiliser.</li> </ul>
	[REDACTED]
	<ul> <li>The price of power is the key determinant – at c. £25/ MwH in Brazil, and lower elsewhere the UK price of c. £100/ MwH is simply not competitive. [REDACTED]</li> </ul>
	• [REDACTED] appear to FFI to be the biggest opportunities for Europe, which is the largest market. MH pointed out that it seems odd to ship green hydrogen from elsewhere in the world when it can be produced in Europe.
	<ul> <li>MH asked whether there are assets [REDACTED] where infrastructure could be developed for hydrogen production – ideally non-grid connected so that there could be control over power generation and usage. [REDACTED]</li> </ul>
	<ul> <li>MH mentioned that Germany is heavily subsidising hydrogen and asked whether Scotland could speak directly to Germany about agreeing subsidies for hydrogen produced in Scotland, which would make an investment more of an interesting proposition. MH offered FFI support in any discussions with the German government on this.</li> </ul>
	• MH noted that Scotland, with its political stability, is a better offer for investment than less stable places elsewhere in the world where hydrogen production is possible and energy is cheap.
	[REDACTED]

	OFFICIAL – SENSITIVE
	• CM suggested that Shetland might be an interesting proposition, with existing infrastructure including the port.
	• MH thought that existing infrastructure would be a bonus, noting that there are no technological barriers to production, it is simply about the return on investment for FFI, and being able to drive down costs by having infrastructure present was an asset.
	• MH noted that investment support doesn't have to be huge, Australia has started with a \$2bn AUS investment in "Hydrogen Head Start" which is moving the market. FFI would love to invest in Scotland.
	• MH repeated the willingness of FFI to invest in Scotland and to support meetings to show the willingness of industry to work with government. FFI believe that the hydrogen market will be as large as the fossil fuel industry, but that the fossil fuel industry itself is slow to move whilst there are still large profits to be made from oil and gas.
	• FM stated that he wanted to push oil and gas companies to show real plans for decarbonisation and leadership. FM asked about perceived cooling of interest in hydrogen this year.
	• MH stated that some companies had struggled to secure offtake arrangements, but that FFI were bullish – he noted the premium some were willing to pay, e.g. Singapore on green ammonia. MH also noted that Singapore was a great place to do business, citing the strong connections between business and politics (some familial).
	• FM thanked MH for his time and candour, noting that we know what needs to be done, the challenge now is in making it happen.
Attending Official	Colin McAllister CM, SpAd, [REDACTED] SG USA [REDACTED], SDI N America
Comment	The meeting was warm, friendly and honest, with positive engagement from both sides on common challenges and opportunities. There was a genuine offer of FFI support in discussions with other governments, especially Germany, to show the willingness of industry to support hydrogen investments.
Actions	<ul> <li>ICC/ DEXA H2 lead /SDI/ DITI to convene on the possibility of working with FFI and an approach to the German Government,</li> <li>Same group to consider the position of Shetland as a potential H2 hub.</li> <li>Same group to consider current and projected energy costs coming from Scottish offshore wind, whether this is likely to drop into the \$50MwH range which FFI are looking for.</li> </ul>
Copy list	FMPO PO CabSec TNZJT Colin McAllister. Special Adviser Emily Macintosh, Special Adviser Scott Wightman, Director External Affairs Kersti Berge, Director Energy and Climate Change Richard Rollison, Director, International Trade and Investment

Jemima Gordon- Duff, Deputy Director, International Climate Change
Catriona Laing, Deputy Director Domestic Climate Change
Donna MacKinnon, Deputy Director European Relations
[REDACTED], Deputy Head US Hub
[REDACTED], DEXA Hydrogen Europe lead
[REDACTED], Desk Officer USA
ICC Unit

	ENGAGEMENT REPORT
Minister	Gillian Martin ( <b>GM</b> ) Minister for Energy and the Environment
Date	18 October 2023
Who	Tómas Már Sigurðsson ( <b>TMS</b> ) – CEO, HS Orka Jón Ásgeirsson ( <b>JA</b> ) – Executive VP, Strategy and Operations, HS Orka
Key Points	<b>TMS</b> provided an overview of HS Orka's operations. The company is co- owned by Iceland's pension fund and UK investment manager Ancala Partners. The plant provides hot water to the south-west Iceland region, where the vast majority of the population lives, and electricity across the country.
	<b>TMS</b> explained that, during the oil crisis of the 1970s, Iceland established an energy fund to support local authorities with geothermal exploration. The fund covered the costs of failed drilling attempts, reducing financial risks for local authorities who would then retain the profits if the exploration was successful.
	<b>GM</b> enquired about the costs of distributing energy to households. <b>TMS</b> explained that the average Icelandic bill includes both distribution and generation costs (rough ratio is 60%-40%). There is no real fluctuation, though minor CPI adjustments are carried out early.
	<b>GM</b> reflected on fuel poverty in Scotland. <b>TMS</b> commented that one of the few drawbacks of cheap heating and electricity bills in Iceland is that there is no incentive to save energy. When, due to exceptionally low temperatures last winter, a decision was made to close some outdoor pools, it came as a shock to the population.
	<b>TMS</b> explained that, of Iceland's overall electricity consumption, around 80% is due to industry demand. Of the latter, around 85% can be attributed to three aluminium smelters.
	<b>TMS</b> said that [REDACTED]. <b>GM</b> spoke about Scotland's recent onshore wind sector deal and the expectation it sets that companies will engage with local groups and pay community benefits. People need to see tangible benefits stem from new green energy projects, including in the form of cheaper bills and more substantial investments in local facilities. Work is also underway in Scotland to encourage developers to engage with environmental organisations from the early stages.
	<b>JA</b> offered an overview of HS Orka's resource park, which employs around 2,200 people. Companies based in the resource park operate in a variety of sectors from aquaculture and leisure to life sciences. HS Orka's ambition is that of producing e-fuels, including hydrogen and methanol, that can be included in the park's circularity model, increasing sustainability further. The park started off organically as a group of companies that understood the importance of sustainability but HS Orka are now looking to recruit more members proactively to establish an even larger eco-park.

Action points	Officials to share more information on onshore wind sector deal.
Attending Official	[REDACTED] – Private Secretary [REDACTED]– Head of Northern Europe and Arctic Unit Michelle Quinn – Director for Offshore Wind [REDACTED] – Head of Strategic Coordination, Offshore Wind

	ENGAGEMENT REPORT
Minister	Gillian Martin (GM)
	Minister for Energy and the Environment
Date	18 October 2023
Who	Bryony Mathew ( <b>BM</b> ) – British Ambassador to Iceland
Key Points	<b>BM</b> spoke about recent political developments in Iceland, including the mini-reshuffle that had just been announced at the weekend.
	<b>GM</b> explained she had participated in the Arctic Circle Assembly twice in her previous capacity as Convener of the Scottish Parliament's Environment, Climate Change and Land Reform Committee. There was a discussion about the Minister's programme and her visit to HS Orka earlier that day.
	<b>BM</b> noted that Iceland has traditionally been open to testing new energy technologies, as demonstrated by their pioneering work on carbon capture and storage. [REDACTED]. <b>GM</b> said Icelandic stakeholders, including MPs, have shown interest in learning from Scotland's approach to wind energy. The recent onshore wind sector deal and progress on ScotWind strengthen Scotland's offer in this ongoing exchange of knowledge and best practices.
	<b>BM</b> explained that Iceland's real strength and unique selling point in terms of renewable energy technologies remains their expertise on geothermal exploration. Iceland is working with third countries in the global south and small island nations (eg Solomon Islands). There was a discussion about the Carbon Neutral Islands project promoted by the Scottish Government.
	<b>BM</b> said that a new UK-Iceland MoU on Arctic science collaboration would be signed at the Arctic Circle Assembly.
Action points	Officials to share more information about the Carbon Neutral Islands project.
Attending Official	[REDACTED] – Private Secretary [REDACTED] – Head of Northern Europe and Arctic Unit

	ENGAGEMENT REPORT
Minister	Gillian Martin ( <b>GM</b> ) Minister for Energy and the Environment
Date	18 October 2023
Who	Members of Environment and Communications Committee
	Bjarni Jónsson ( <b>BJ</b> ) – Chair Þorbjörg Sigríður Gunnlaugsdóttir – First Deputy Chair Vilhjálmur Árnason ( <b>VA</b> ) – Second Deputy Chair Þórunn Sveinbjarnardóttir ( <b>ÞS</b> ) Jakob Frímann Magnússon ( <b>JFM</b> ) Njáll Trausti Friðbertsson ( <b>NTF</b> ) Orri Páll Jóhannsson ( <b>OPJ</b> ) Andrés Ingi Jónsson Halla Signý Kristjánsdóttir
Key Points	<b>BJ</b> welcomed the Scottish delegation to the Icelandic parliament. He provided an overview of Iceland's current energy mix, underlining the enduring importance of geothermal resources. He commented that Iceland is just beginning its wind energy journey, with regulatory frameworks still under development. He said the committee's visit to Scotland in January 2023 had proved extremely useful in informing ongoing parliamentary debates and assessments. At present, onshore wind farms can only be built in areas that have already been "disrupted" by other energy projects. Discussions are however underway to understand what regulatory adjustments would be required to allow onshore wind farms in other parts of the country.
	<b>ÞS</b> enquired about environmental assessment carried out in Scotland as part of onshore and offshore wind developments. <b>JFM</b> asked about the degree to which the Scottish public support wind energy developments. <b>GM</b> commented that, in the main, there has been less opposition to wind farms in Scotland compared to Iceland. The visual impact of onshore wind projects is still debated at times, while there is less controversy around offshore developments.
	<b>GM</b> said that fuel poverty is a worrying issue, especially in rural areas where Scotland's natural resources tend to be concentrated. It is vital that communities see tangible benefits stem from the renewable energy projects they host, including in the form of cheaper energy bills. While Iceland may not experience as much fuel poverty, communities would no doubt welcome greater investment from developers in local facilities.
	<b>OPJ</b> asked about community benefits. <b>GM</b> spoke about the onshore wind sector deal and the expectation it sets that developers will engage with local groups and pay community benefits. Similarly, companies that bid successfully for the ScotWind leasing round were required to commit to invest in local supply chains.
	<b>NTF</b> enquired about the impact of greater electricity production on the national grid. <b>VA</b> asked about what use Scotland intends to make of the

	electricity surplus that new offshore wind farms will generate. <b>GM</b> said that the UK's national grid, like in many other countries, is in urgent need of upgrading. The surplus of electricity that could be produced through ScotWind projects would struggle to enter the grid at present. However, this is also an incentive to think creatively and invest in other technologies such as hydrogen.
	<b>VA</b> commented that Iceland underwent a green energy transition decades ago (from oil & gas to geothermal and hydro). Carbon emissions have already been cut substantially. In order to persuade the public of the value of and need for wind farms, incentives have to be of a financial and not environmental nature.
	<b>PS</b> said that energy security is a relatively new topic in Icelandic politics. While fuel poverty is not a widespread issues, there are disparities between regions and an emerging urban-rural divide.
Action points	Officials to share more information on onshore wind sector deal and hydrogen projects in Scotland
Attending Official	[REDACTED] – Private Secretary [REDACTED] – Head of Northern Europe and Arctic Unit Michelle Quinn – Director for Offshore Wind [REDACTED] – Head of Strategic Coordination, Offshore Wind

	ENGAGEMENT REPORT
Minister	Gillian Martin ( <b>GM</b> ) Minister for Energy and the Environment
Date	18 October 2023
Who	Halla Hrund Logadóttir (HHL) – DG, National Energy Authority
Key Points	<b>HHL</b> explained that around 85% of all energy consumed in Iceland is already green. The challenge lies in decarbonising the remaining 15%, for instance in the transport sector. The Icelandic government is currently offering incentives to encourage people to buy electric cars but grants will be reduced from January 2024. Shipping and aviation are another two sectors where emissions are proving difficult to abate but pilot projects are being carried out in relation to eg electric planes.
	<b>GM</b> enquired about the role of the National Energy Authority in relation to wind energy developments. <b>HHL</b> said that [REDACTED]. Large-scale projects require approval from the Icelandic Parliament before even entering the licensing phase. Only two projects have received parliamentary approval so far. [REDACTED].
	<b>GM</b> spoke about ScotWind. It has been estimated that each project could be worth up to £1.5bn for local supply chains. She noted that the First Minister had just announced up to £500m in investments.
	<b>HHL</b> said that the skills developed during the transition to geothermal energy are being shared and sold internationally. Icelandic expertise is currently supporting the construction of geothermal plants in China. There was a discussion about how Iceland's experience could translate in Scotland, especially in relation to ScotWind projects and how Scotland could similarly become a global expertise, knowledge and training hub for offshore wind.
	<b>HHL</b> said that she would welcome the opportunity of a knowledge exchange visit Scotland in due course.
Action points	• Officials to work with HHL to explore opportunities for a visit to Scotland and offer suggestions as to what her programme could include.
Attending Official	[REDACTED] – Private Secretary [REDACTED] – Head of Northern Europe and Arctic Unit Michelle Quinn – Director for Offshore Wind [REDACTED] – Head of Strategic Coordination, Offshore Wind

	ENGAGEMENT REPORT
Minister	Gillian Martin ( <b>GM</b> ) Minister for Energy and the Environment
Date	19 October 2023
Who	Mariam Almheiri (MA) – Minister of Climate Change and Environment, UAE
Key Points	<b>MA</b> offered an overview of how preparations for COP28 are progressing and reflected on the importance of using the summit as an opportunity to focus decarbonisation and climate efforts both domestically and internationally. The UAE have set a 2050 deadline to achieve carbon neutrality. <b>GM</b> spoke about Scotland's experience of hosting COP26 and how the Scottish Government has sought to build on that legacy.
	<b>MA</b> said that the UAE presidency have decided to convene the first-ever Health Ministerial meeting at COP28 to discuss the impact of climate change on communities' physical and mental wellbeing. Food systems transformation and resilience will be another important theme at the summit, with the UAE urging parties to support a Declaration on Resilient Food Systems, Sustainable Agriculture, and Climate Action.
	<b>GM</b> stressed SG's desire to see COP28 build momentum and unlock funding for loss and damage. She provided an overview of SG's work and financial commitments on these issues, including in relation to non-economic loss and damage. <b>MA</b> agreed urgent action is required on loss and damage, working with small island nations and developing countries. COP28 will seek to operationalise financial arrangements and make more funding available.
	There was a discussion about the importance of making COP28 accessible and inclusive. <b>GM</b> spoke about how SG supported young people and Indigenous communities during COP26.
	<b>MA</b> explained that the UAE and Indonesia established the Mangrove Alliance for Climate at COP27. It is hoped more countries will join and the UK has not yet signed up.
	<b>MA</b> noted that the UAE have set up Masdar to increase investment in clean energy technologies, with plans to expand the portfolio of wind energy projects.
	<b>GM</b> spoke about the energy transition in the North East of Scotland, and how existing skills and expertise can assist with accelerating green energy developments. Sharing these skills with international partners, especially in the Global South, can also contribute to Scotland's work on climate justice.
	<b>GM</b> said Cabinet Secretary Gray would visit the UAE later in the month and hoped to meet MA while there.

Action points	<ul> <li>Officials to work with UAE Embassy in London to set up a meeting between Cabinet Secretary Gray and MA during visit to UAE (actioned).</li> <li>Officials to find out more about Declaration on Resilient Food Systems, Sustainable Agriculture, and Climate Action.</li> <li>Officials to provide advice on Mangrove Alliance ahead of Mr Gray's visit (actioned).</li> </ul>
Attending	[REDACTED] – Private Secretary
Official	[REDACTED] – Head of Northern Europe and Arctic Unit

	ENGAGEMENT REPORT
Minister	Gillian Martin ( <b>GM</b> ) Minister for Energy and the Environment
Date	19 October 2023
Who	Karen Ellemann ( <b>KE</b> ) – Secretary General, Nordic Council of Ministers Klaus Skytte ( <b>KS</b> ) – CEO, Nordic Energy Research
Key Points	<ul> <li>KE set out how the Nordic Council of Minister is structured as well as its main responsibilities. While the main focus is on facilitating cooperation within the Nordic region, engagement with international partners is also important for the organisation. The Neighbours to the West programme was established to strengthen collaboration with countries including UK, Ireland and Canada. [REDACTED]</li> <li>KE and KS praised the strong relationship that SG has established with Nordic Energy Research, and the wealth of relevant expertise that Scotland can contribute to projects promoted by the agency, as demonstrated by the joint conference on sustainable islands held in Shetland.</li> <li>GM stressed SG's interest in increasing collaboration with the Nordic Council of Ministers further, including in relation to renewable energy. She spoke about Scotland's growing pipeline of offshore wind projects and reflected on opportunities to pursue Scottish-Nordic knowledge exchange on marine planning to develop a better understanding of the interaction between offshore wind farms and other blue economy activities. Greater collaboration on energy infrastructure and e-fuels, especially hydrogen, can also be strategic in accelerating the deployment of renewable energy technologies in the North Sea and North Atlantic regions.</li> <li>KE noted that the declaration signed by Nordic Energy Ministers during their meeting in Reykjavik on 18 October identified hydrogen as one of the top priorities. KS added that Nordic Energy Research is convening a networking group on CCUS.</li> </ul>
	There was a discussion on next steps and how SG-NCM collaboration could be formalised going forward.
Action points	<ul> <li>Officials to continue discussions with Icelandic presidency of the NCM about formalising SG-NCM collaboration</li> <li>Officials to follow up with NER on Scottish participations in networks and upcoming projects.</li> </ul>
Attending Official	[REDACTED] – Head of Northern Europe and Arctic Unit

	ENGAGEMENT REPORT	
Minister	Gillian Martin ( <b>GM</b> ) Minister for Energy and the Environment	
Date	19 October 2023	
Who	Wade Merritt (WM) – President, Maine International Trade Center	
Key Points	<b>WM</b> explained that Maine has long been discussing plans to build floating offshore wind farms. The University of Maine is currently carrying out research on environmental impacts and the interplay with other blue economy activities, especially the local lobster industry.	
	<b>GM</b> enquired about existing port infrastructure in Maine. <b>WM</b> said a survey is underway to map ports, harbours and other facilities. The port of Searsport has already been identified as a key node to support offshore wind activities. <b>GM</b> explained that the First Minister announced up to £500m strategic investment to develop the offshore wind supply chain and critical infrastructure over the next 5 years.	
	<b>WM</b> noted that Maine's lobster industry has expressed concerns about the impact of offshore wind developments. <b>GM</b> spoke about Scotland's expertise on marine planning.	
	<b>GM</b> underlined the importance of ensuring that local communities see tangible benefits stem from new renewable energy projects. It is also important to invest in skills and apprenticeship opportunities for local youth. Scotland's strong oil and gas heritage – and the expertise that comes with it – are going to be crucial in the transition to green energy technologies.	
	[REDACTED]	
	<b>MQ</b> enquired about Maine's timescale for offshore wind deployment. <b>WM</b> explained a feasibility project (one turbine) was completed three years ago. A larger 12-turbine feasibility project is awaiting licensing. A commercial leasing round has already been published [REDACTED].	
	<b>WM</b> said that offshore projects from 3 miles out fall under federal jurisdiction. Areas for offshore development are identified by federal officials so federal politics and priorities play an important role. The state of Maine is responsible for landing cables [REDACTED]. There is however growing consensus around the need for a regional approach to building supply chains. For instance, Rhode Island, Massachusetts and New Hampshire are already exploring opportunities in that respect.	
Attending Official	[REDACTED] – Private Secretary [REDACTED] – Head of Northern Europe and Arctic Unit Michelle Quinn ( <b>MQ</b> ) – Director for Offshore Wind [REDACTED] – Head of Strategic Coordination, Offshore Wind	

	ENGAGEMENT REPORT		
Minister	Gillian Martin ( <b>GM</b> ) Minister for Energy and the Environment		
Date	20 October 2023		
Who	Olafur Grimsson ( <b>OG</b> ) – Chairman, Arctic Circle		
Key Points	<ul> <li>GM thanked OG for the invitation to address the conference. Scottish Ministers have addressed the Arctic Circle Assembly every year it has been held since 2016. It provides a great platform to raise awareness of our expertise, make new connections and learn from international partners.</li> <li>OG said that one only needs to look at the map to understand the importance of including Scotland in Arctic discussions. When former FM Sturgeon was on stage at the Assembly in 2021, OG showed her a map tracing a "North Atlantic Corridor". Scotland can play a crucial role in connecting the European Arctic with North America.</li> <li>OG spoke about the rapid growth in northern tourism – especially in Iceland, Faroes and Greenland. He commented that Scotland should explore opportunities to become more involved in this growing trend.</li> <li>There was a short discussion about the Arctic Circle Forum, scheduled to take place in Berlin in May 2024. Scotland would be a welcome participant in the event.</li> </ul>		
Attending Official	[REDACTED] – Private Secretary [REDACTED] – Head of Northern Europe and Arctic Unit		

	ENGAGEMENT REPORT		
Minister	Gillian Martin ( <b>GM</b> ) Minister for Energy and the Environment		
Date	20 October 2023		
Who	Carlos Lange ( <b>CL</b> ) – President for Europe, Fortescue Future Industries		
Key Points	<b>CL</b> spoke about FFI operations in Scotland, including a new office in Aberdeen [REDACTED]		
	<b>CL</b> commented on the price of power in the UK compared to other countries. It is too expensive. The same could however be said about the wider North Sea region.		
	<b>GM</b> spoke about the importance of adopting a regional approach, with countries coming together to build mutually reinforcing infrastructure and agree common standards.		
	<b>CL</b> asked about how the 28GW of capacity anticipated for ScotWind is going to be used. <b>GM</b> spoke about the importance of upgrading the electricity grid and working with other countries on greater interconnection. The electricity surplus will also assist Scotland's ambition to build a hydrogen economy. The H100 project in Fife provides an example of how hydrogen could be used for domestic heating. Hydrogen will also be important to accelerate decarbonisation in the transport sector. And Scotland can become an exporter of hydrogen to other countries, especially Germany.		
Action points	Officials to invite FFI to join the Hydrogen Industry Forum (actioned – they are already members)		
Attending Official	[REDACTED] – Private Secretary [REDACTED] – Head of Northern Europe and Arctic Unit		

ENGAGEMENT REPORT		
Minister	Gillian Martin ( <b>GM</b> ) Minister for Energy and the Environment	
Date	20 October 2023	
Who	Guðlaugur Þór Þórðarson ( <b>GÞ</b> ) – Iceland's Minister for the Environment, Energy and Climate	
Key Points	[REDACTED]	
Action points	[REDACTED]	
Attending Official	[REDACTED]– Private Secretary [REDACTED]– Head of Northern Europe and Arctic Unit	

#### AIDE MEMOIRE PANEL DISCUSSION AT NORDIC ENERGY CONFERENCE THURSDAY 19 OCTOBER 2023, 11:20

#### Pre-agreed question:

What steps is the Scottish Government taking to ensure communities and citizens embrace new green energy infrastructure?

#### Answer:

### Top line

• Communities play a vital role in Scotland's just transition to net zero, and the Scottish Government continues to ensure that communities are at the heart of our renewable energy ambitions.

## <u>CARES</u>

- That is why we continue to invest in our Community and Renewable Energy Scheme. CARES supports communities to engage in, and benefit from, the energy transition. To date, CARES has advised over 900 organisations and provided over £60 million in funding to over 680 projects.
- CARES has also supported progress towards our target to deliver 2 GW of community and locally owned renewable energy by 2030, which we are almost halfway towards achieving.
- For example, projects like the Buchanan Hydro project (near Loch Lomond) are vital to realising this target.
- This 100 kw run of river hydro community scheme received advice, development funding and a capital loan from CARES. The project's financial surpluses will be used to provide community benefit in the Buchanan area.

# Community benefits

- We also continue to encourage developers to offer community benefits and shared ownership opportunities as standard on all new renewable energy projects through our Good Practice Principles, which have been widely adopted.
- The Scottish Government's Register of Community Benefits shows that in the past 12 months, over £25 million worth of community benefits have been offered to Scottish communities.

# **Onshore Wind Sector Deal**

- We also recently published the Onshore Wind Sector Deal a shared commitment between Government and industry to deliver on our collective ambition of 20 GW of onshore wind in Scotland by 2030, whilst delivering maximum benefit to Scotland.
- Through the deal, the sector is proudly committed to working even more closely with local communities, engaging them in decision-making processes and delivering tangible benefits.
- One of the key commitments in the deal is for developers to meet or exceed the principles set out in the Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments. This goes further than any other commitment made by industry to date.

Planning and infrastructure:

- I am aware that a number of communities have concerns about potential proposals for new network infrastructure or renewables development.
- Our National Planning Framework (NPF4) sets out that the potential impact on communities must be assessed through the planning process.

#### AIDE MEMOIRE MINISTERS OF CLIMATE: PANEL DISCUSSION THURSDAY 19 OCTOBER 2023, 14:45

Question <u>suggested</u> to the moderator. No guarantee he will use it but these are some points you may want to raise during the panel discussion anyway.

What role do subnational governments have in galvanising global ambition and tangible action on climate change?

#### Answer:

- The UN Development Programme estimate that between 50% and 80% of adaptation and mitigation actions necessary to tackle climate change are or will be implemented at the subnational or local level of governance.
- Scotland understands this and has sought to make the most of our devolved powers to be ambitious and take urgent action.
- We have having legislated for more challenging targets than the rest of the UK and taken world-leading action in areas such as energy transition and afforestation.
- We are also trying to galvanise others internationally, including by sharing expertise developed domestically.
- We are in our second term as European co-chairs of the Under2 Coalition, the largest international network of subnational governments committed to reaching net zero by 2050 or earlier.
- Within the Under2 Coalition, we are leading the Net Zero Futures Policy Forum, which seeks to address the practical challenges of accelerating decarbonisation.
- The current focus is on transport emissions, green hydrogen and nature based-solutions.

- On biodiversity, we gathered 300 signatures from as many subnational governments in support of the Edinburgh Declaration, which sought formal recognition of the role of subnational governments in achieving of global biodiversity targets.
- As a result, the Global Biodiversity Framework adopted at COP15 in Montreal in December 2022 acknowledges the importance of subnational governments in delivering for biodiversity.
- We were also the first country in the global north to commit funding for Loss and Damage.
- And just a few weeks ago, during New York Climate Week, our First Minister announced a new £5m programme on non-economic loss and damage.
- As Arctic communities know very well, not all impacts of global warming are quantifiable. Loss of habitats, impacts on physical and mental wellbeing, threats to sacred sites and cultural heritage are as concerning as economic damages.
- All this has been achieved within our current devolved powers. Imagine how much we could do as an independent country.

#### OPENING REMARKS BUILDING A NORTH ATLANTIC ENERGY HUB FRIDAY 20 OCTOBER 2023, 09:40

You have been allocated 7 mins. This speech is 786 words (~6 mins)

### **Introduction**

Thank you Halla [Hella] and Daria for your contributions so far.

I am delighted to be back at the Arctic Circle Assembly. I have been here before as a Member of the Scottish Parliament, and this year I am continuing the tradition of a Scottish Government Minister attending every Assembly since 2016.

My role as Energy and Environment Minister is close to my heart.

I am from the north east of Scotland, an area renowned as the oil and gas capital of Europe. Before becoming a politician, I spent many years working in the industry.

So it is a privilege to be able to use that experience to help Scotland enter a new era – that of green energy.

Scotland was the first country to declare a global climate emergency in 2019. We have an enviable track record in renewables and an abundance of green energy resources. However, the true potential of the renewable energy revolution can only be realised if we work together with our friends and neighbours.

# <u>Context</u>

As you may have heard my colleagues say at this conference before, Scotland is the world's most northerly non-Arctic nation.

We sit in a key strategic position connecting the European Arctic with central Europe and North America, neatly demonstrated by the slide on the screen.

The dramatic impacts of climate change on the Arctic are happening on our doorstep.

And as geopolitics becomes increasingly uncertain, we look at our shared northern neighbourhood as a group of likeminded countries sharing a common ambition – that of accelerating our transition to net zero and providing green energy security for our region and beyond.

That is why it's so good to see colleagues from across the North Atlantic joining this panel today. Each of our countries brings something unique to the table.

### **Overview**

So what can Scotland offer?

We are already a leading producer and net exporter of low carbon energy. In 2022, we generated enough renewable electricity to power all our households for around three and a half years.

I will come back to this concept of surplus a few other times during my remarks.

With 18,000 kilometres of coastline and reliable marine and wind resource, we enjoy vast renewable energy potential.

The map on the screen is taken from the Scottish Government's draft Energy Strategy and Just Transition Plan, which was published earlier this year.

It highlights areas of activity across the energy system, from offshore wind and hydrogen to marine energy and carbon capture sites.

It is truly a whole-of-Scotland endeavour.

### Wind energy

If you have visited us, you will know that Scotland can be a very windy place at times. So it's perhaps no surprise that we have made great strides developing that sector.

We have set an ambition for a minimum installed capacity of 20 gigawatts of onshore wind by 2030. This could generate enough electricity to power the equivalent of 19.5 million homes per year.

Our offshore wind sector is arguably even more exciting. And one in which we are already recognised as global leaders.

We are home to both the world's first, and one of the world's largest floating offshore wind farms.

Following recent leasing rounds, Scotland now has a potential pipeline for over 40 gigawatts of offshore wind capacity. This is the equivalent of producing enough electricity annually to power every home in Scotland for 17 years.

We have a wealth of offshore skills to share with international partners and a vast network of ports that can service the north Atlantic region.

# <u>Hydrogen</u>

Those ports will be crucial for another transformative contribution that Scotland can bring to the green energy transition in the region. That connected to hydrogen.

We were the first nation in the UK to set out a policy statement on hydrogen and we are forging ahead in the commercial development of these technologies.

Regional Hydrogen Hubs are being established across Scotland to host the entire value chain and our ambition is to export renewable hydrogen at scale to support our near neighbours' decarbonisation efforts.

### Other energy sources

Our offer is complemented by world-leading expertise on marine energy.

We host the European Marine Energy Centre (EMEC), the world's only fully accredited test and research facility for wave and tidal energy.

And there are huge opportunities around Carbon Capture, Utilisation and Storage, with ready access to depleted oil and gas fields.

# **Conclusion**

The size of the opportunity – and the challenge we face – means there is no need for any one country to seek a monopoly.

In fact, we must pool our complementary expertise to deliver decarbonised, affordable and secure energy systems in our shared North Atlantic neighbourhood.

Scotland stands ready to play its part.

I look forward to continuing the discussion on how we can work together going forward.

Thank you.

### Pre-agreed question:

A number of countries are exploring opportunities to become exporters of hydrogen. What advantages does Scotland have in this increasingly crowded field?

- Hydrogen is a growing global industry. It was interesting to hear from my Greenlandic colleague about the work underway in his country. We will be on stage together later today for a plenary session focused precisely on hydrogen.
- Scotland has at least three key advantages:

 <u>Location</u>. As I said earlier and the slide showed, we are in a key strategic position between Arctic, North Atlantic and North Sea. We can service different markets and have an existing network of ports along our extensive coastline that allows us to do just that.

Scotland is 700 kilometres away from the Netherlands and 750 kilometres away from Germany. This proximity as well as our existing infrastructure connectivity to Europe offers us the potential to export hydrogen to the North of Europe via pipeline.

• <u>Renewables pipeline</u>. I spoke about the massive potential pipeline of offshore wind projects. It could be as much as 40 gigawatts.

ScotWind alone could be worth up to 28 gigawatts. It is the world's largest commercial round for floating offshore wind. Several of the successful developers have made commitments on hydrogen production.

• <u>Skills and workforce</u>. The energy sector is already a major employer in Scotland. Our oil and gas industry can provide many of the skills required to build a hydrogen economy in Scotland.

Skills required for hydrogen are similar to those from the chemical and gas industries.

• As I said during my speech, however, there is no need for any country to seek a monopoly. In fact, we need to work together and pool resources and expertise.

#### OPENING REMARKS FROM NORTH SEA TO ARCTIC: CREATING MUTUAL ENERGY SECURITY FRIDAY 20 OCTOBER 2023, 15:00

You have been allocated 5 mins. This speech is 630 words (~4.5 mins)

### **Introduction**

Many thanks Karen [Oseland - moderator]

And thank you to the Egmont Institute for working with the Scottish Government to promote this topical session.

Achieving energy security while reducing our reliance on fossil fuels has become one of the defining challenges of our times.

But let me be clear. The North Sea can be the key to unlocking many of the solutions, for our shared northern neighbourhood and beyond.

### Draft ESJTP

Earlier this year, the Scottish Government published a draft Energy Strategy and Just Transition Plan.

The document does not shy away from referring to the North Sea as a potential "battery for Europe".

Long associated with oil & gas, the North Sea can become a renewable energy powerhouse.

Two main shifts are required to turn that potential into reality.

### **Technology shift**

The first one is a rapid scaling-up in the deployment of green energy infrastructure.

In Scotland, we launched the world's largest single offshore wind leasing round. It is called ScotWind and has a potential capacity of around 28 gigawatts across 20 projects.

The sum of ScotWind and other offshore wind projects in Scottish waters amounts to a massive potential pipeline of 40 gigawatts.

That is enough electricity annually to power every home in Scotland for 17 years - and about a quarter of the current North and Baltic Seas pipeline.

But that is not all. We also have tidal energy arrays and a wellestablished offshore wind sector producing electricity at gigawatt scale.

<u>Just think</u> – in 2020, the equivalent of over 98% of our gross electricity consumption was already coming from renewable sources. <u>Before</u> those 40 GW come on stream.

That additional potential can go towards supplying green energy to international partners.

We can and want to be a provider of green energy.

Much of it could take the form of renewable hydrogen, which we know will be essential for an industrial and transport transition.

Around the North Sea, in the North Atlantic and in the Arctic.

### Economic model shift

But we also need a second shift. A shift from trade competition to strategic collaboration.

Our draft Energy Strategy underlines the transformational potential of a fully interconnected 'North Sea Grid'.

<u>The point is this</u> – energy and economic security across the region will come from integrated and mutually reinforcing infrastructure. Not from segregated systems.

I am not underestimating the scale of the challenge. But I would also like everyone here to appreciate the scale of the opportunity. To realise it, we need to pool expertise, share supply chains and design compatible infrastructure.

### **Export infrastructure**

The Scottish Government has already commissioned research on how Scotland could connect into a European Hydrogen Backbone, by optimising existing pipeline infrastructure or developing new one.

The first phase of the research focuses on central Europe. After all, Scotland is only 700 kilometres away from the Netherlands and 750 kilometres away from Germany.

But the second phase will also investigate a Scottish-Irish backbone link. And we must have the ambition to look even further in our shared northern neighbourhood.

Meanwhile, we are talking with the ports of Hamburg and Rotterdam, which we expect to become major hydrogen hubs.

And we stand ready to do the same with Belgian ports. I know that the Belgian Government has ambitious plans for hydrogen import and distribution.

### **Conclusion**

Let me conclude by saying this:

Energy security is an urgent need. But the race towards that common goal must be run together. Not against each other.

Scotland has a huge range of skills, assets and industry knowledge that can help the North Sea transformation go faster.

We are located at the intersection of Arctic, North Atlantic and North Sea. And we don't lack in ambition when it comes to contributing to international energy partnerships.

It is through discussions like today's that we can start turning that vision into a reality.

Thank you

#### Pre-agreed question:

You spoke about the industrial opportunities that the green energy transition can unlock in the North Sea and beyond. But are the skills and supply chain there to support that transition and realise that potential?

- The energy sector is already a major employer in Scotland, with an estimated 75,000 jobs connected to it.
- Thanks to our oil & gas heritage, Scotland can already count on highly trained offshore workforce, with a wealth of transferable skills in – for instance – engineering and manufacturing, construction and chemical science.
- In fact, supporting oil & gas workers into renewable energy jobs is one of the key components of Scotland's Just Transition to net zero.
- We have established a Green Jobs Fund to help businesses and supply chains create new green jobs, including through re-skilling and up-skilling.
- What is also crucial is that we take a holistic approach to supply chain investment.
- For that reason, we have worked with public and private partners to develop a "Strategic Investment Model" to support coherent and coordinated growth in supply chain capacity and capability.
- That includes, for instance, our extensive network of ports. We are already reviewing our own ports and terminal infrastructure preparedness for offshore wind purposes and hydrogen exports.
- Scotland has the skills, people and to a substantial extent the infrastructure required to power the green transition. But we cannot research, manufacture, or build it all alone and it is for that reason that I called for a joint regional endeavour.

#### OPENING SPEECH BREAKOUT SESSION ON COMMUNITY ENERGY IN SCOTLAND AND CANADA Friday 20 October 2023, 16:10

You have been allocated 3-4 minutes. This speech is 415 words (~ 3 mins)

### **Introduction**

Many thanks Anne [Barker - moderator]

Thanks for asking me to say a few words to open this session.

I am very pleased the Scottish Government and NRC could work together again and build on last year's successful event on mental wellbeing in rural areas.

The key link between the two sessions is the importance of working with communities and co-designing policies, using local expertise and reflecting local needs.

# **CARES**

And that is a vital approach in the context of the green energy transition.

We must do things with people, not to people.

In Scotland, communities are at the heart of our renewable energy ambitions and community energy has the potential to play a pivotal role in a just transition to net zero that leaves no one behind.

The Community and Renewable Energy Scheme – CARES for short – is the Scottish Government's flagship programme for supporting community renewable energy projects.

It helps local communities develop their own green energy ideas through mentoring and – of course – funding.

To date, it has supported 900 organisations and offered funding in excess of £60 million to over 680 projects, resulting in the installation of just under 58 megawatts of renewable energy.

Our target – through CARES and other schemes – is that of securing 2 gigawatts of community and locally owned renewable energy by 2030.

# <u>Eigg</u>

I am pleased Camille [Dressler] is here today to share with us the inspiring journey that the isle of Eigg has been on. CARES has supported the installation of solar panels and storage batteries on the island. And discussions are now underway with the local community to further improve the resilience of their energy system.

### **Remote communities – similarities with Canada**

Within CARES, there is a funding stream specifically designed to support some of Scotland's more remote and rural offelectricity grid communities.

Scotland has over 90 inhabited islands. 98% of our landmass is classified as rural but it contains only 17% of our population.

Admittedly, the scale of our rurality and remoteness pales in comparison to the Canadian Arctic.

But, as I think Cameron [Johnstone] will tell us shortly, our challenges are nonetheless similar and there is great value in learning from each other.

# **Conclusion** (assuming the Minister will stay for at least part of the session) I therefore look forward to hearing more about the work underway in Nunavut and the role of NRC in facilitating local efforts and building on Indigenous knowledge.

Combined with last year's event, this session speaks of our joint ambition to strengthen the resilience of rural communities.

Let's continue to work together and turn those common challenges into joint solutions.

Thank you

#### PLENARY SPEECH GREEN HYDROGEN: THE ENERGY FUTURE OF THE NORTH? FRIDAY 20 OCTOBER 2023, 18:30

You have been allocated 7 mins. This speech is 951 words (~7 mins).

### **Introduction**

Ladies and gentlemen

It is a pleasure to be with you all today.

I have been lucky to participate in this conference before and I know how instrumental it has been in planting new seeds in the long history of Scottish-Arctic collaboration.

And it is always a treat to visit this wonderful country, with which Scotland has so much history and culture in common.

An upcoming anniversary is illustrative of our rich shared heritage.

In just a few months, we will mark the 150th birthday of the Icelandic national anthem. I am saying "we" because it was written in Edinburgh.

The anthem was composed to commemorate a millennium since the settlement of Iceland. DNA analysis shows that 62% of the first female settlers were from the British Isles. People and knowledge have continued to travel between our countries ever since.

# Key geographical location

Scotland's key geographical position has long made us a crucial logistical node in the Arctic neighbourhood.

After all, Scotland is the most northerly non-Arctic nation.

We are ideally placed to connect the European Arctic with central Europe.

And we are a bridge between the North Sea and the North Atlantic region.

# Support for knowledge exchange

Geographical proximity makes us fully aware of similarities with our Arctic neighbours. They are easily seen in our vast rural areas, low population density and long coastlines.

These commonalities translate in to similar policy and economic priorities. For instance, around the marine economy, sustainable rural development and the wellbeing of our remote communities.

So it is no surprise that Scotland and the Arctic continue to look at each other for solutions and ideas.

The Scottish Government has established a fund to nurture this exchange of knowledge. The third round of the fund is currently underway. It is supporting Scottish organisations to work with Alaska on the space sector, with Canada on green shipping and with Lapland on sustainable tourism – to name but a few.

We have now 11 members in the University of the Arctic, and we are getting ready to host Arctic Science Summit Week in Edinburgh next March.

# **Climate change and decarbonisation**

Cutting across all our work with Arctic partners is the desire to build a greener and more sustainable future for our communities.

I cannot stress this strongly enough – we are facing a global climate and biodiversity emergency.

Every year, this conference hears new alarming data about the pace at which the Arctic is warming up and species being lost.

We cannot afford to become numb to these figures.

Geopolitical events and the heightened focus on energy security must hasten – not weaken – the transition to net zero.

We must be clear – this is not a choice between two types of security. They are the same, our geopolitics securing our environment – and our environment insulating us from geopolitics.

### **Energy**

Be it at micro-level among our rural communities or at an industrial scale, we must develop and deploy clean energy technologies that accelerate our shift away from fossil fuels.

Scotland wants to lead from the front.

Domestically, we have already halved our emissions over the last three decades. Last year, Scotland produced enough green electricity to power itself four times over.

Internationally, we have established ourselves as leaders in renewable energy solutions.

We are home to both the world's first and one of the world's largest floating offshore wind farms.

And we are working on a potential offshore wind pipeline of over 40 gigawatts. To put that into perspective, that is enough electricity annually to power every home in Scotland for 17 years.

Scotland is also the most advanced hub in Europe for marine energy, with companies already exporting their technologies internationally.

And we have a well-established onshore wind sector already producing at gigawatt scale.

What does this all mean?

It means that Scotland has the natural resources; the skills; and the location to share this good fortune in the energy transition with our near neighbours.

# <u>Hydrogen</u>

In fact, we have so much, we are going to have to find new ways to use it. And so green hydrogen is another key component of Scotland's international energy offer.

Our ambition is to produce 5 gigawatts of low-carbon hydrogen by 2030, and 25 gigawatts by 2045. These are substantial volumes. They will help us meet our target of becoming carbon neutral by 2045, while opening export opportunities to meet the growing global demand for hydrogen.

The title of this session refers to hydrogen as the energy of the <u>future</u>.

But in Scotland hydrogen can be spoken about as the energy of the <u>present</u>.

Fleets of hydrogen vehicles can be seen in my home city of Aberdeen, where you can also find publicly accessible hydrogen refuelling stations.

Regional hydrogen hubs are being established across Scotland to host the entire value chain, from production and storage to end-use. Many of them include export targets in their business plans.

Thanks to the North of Scotland Hydrogen Programme you will soon hear about whisky distilleries powered by hydrogen.

And in Shetland, the ORION project is looking to repurpose existing oil infrastructure and deepwater facilities to store and transport hydrogen, including to international markets. All this is happening on the Arctic's doorstep.

### **Conclusion**

Ladies and gentlemen,

Too often the international discourse about the Arctic is about "<u>taking</u>" or "<u>depleting</u>".

Scotland's approach to working with our Arctic neighbours is instead about "<u>sharing</u>" and, if we move together quickly, "<u>regenerating</u>".

Across a range of technologies and energy sources, we have knowledge and skills to share.

We are ready to work with partners in the region to bring a green and sustainable future closer.

Together, we can accelerate the deployment of green energy technologies and reap the huge rewards that come with them – for our economies, our security and of course our environment.

Thank you

### Agreed opening question for panel discussion:

"You spoke about Scotland's ambition to become a world leader in hydrogen production and export. It will presumably require new port infrastructure. What work is Scotland doing to realise that potential?"

- We are actively reviewing existing ports and terminal infrastructure for hydrogen export.
- Due to our long coastline, we have an extensive network of ports and harbour including deepwater facilities.
- In Shetland, for instance, the Sullom Voe oil terminal has the experience and facilities for hydrogen export, including docking for tankers.
- While looking at our domestic networks, we are engaging with key European ports such as Rotterdam and Hamburg, which are expected to become major hydrogen hubs.
- It is vital for all this to work that domestic and overseas port infrastructures are compatible. We must take a coordinated regional approach.
- It is also important to underline that marine vessels are not the only option.
- We are only 700km away from the Dutch coast and 750km away from the German coast.
- The Scottish Government has funded research into the potential to connect Scotland to a European Hydrogen Backbone by either optimising existing pipelines or by developing new infrastructure.
- This work can be expanded and we would surely be interested in hearing from partners in the North Atlantic as to how their plans are developing.