# Annex A

Exemptions under Regulation 10(4)(a) relates to information not held by the public body at the time the request is made. I have engaged in a search of our system as well as engaging with the leading officials for the tour of the H100 project in Fife. There is no information held on this topic. Officials have confirmed 'that no minutes were taken, and no follow-up correspondence was sent or received'.

Exemptions under Regulations 10(5)(e) relate to confidentiality of commercial or industrial information.

These exemptions are subject to the 'public interest test' under EIR Regulation 10(1). Therefore, taking account of all the circumstances of this case, we have considered if the public interest in disclosing the information outweighs the public interest in applying the exemption. We recognise that there is a public interest in disclosing information as part of open and transparent government, and to help account for the expenditure of public money. However, in this instance, and on balance, we consider that there is a greater public interest in protecting – as permitted in limited circumstances – the commercial interests of the companies and/or commercial entities. Overall, it is our judgment that it serves the interests of the public better to withhold and maintain in confidence the information I have identified as exempt under 10(5)(e). We have therefore found that, on balance, the public interest lies in favour of upholding the exemption.

Exemptions under Regulation 11 (personal data of a third party) of EIR applies to some of the information requested. This exemption applies to the names of third parties referenced throughout the documents that have been requested. The Scottish Government has a policy of not disclosing the names of officials who are not Senior Civil Servants, therefore the names of some Scottish Government officials have been redacted. The names of employees of companies mentioned throughout the response to this request who are not board members or senior employees, and the names of commercial advisors, have also been redacted to protect their privacy.

Correspondence between Andrew Gardner and Mr Gray have been redacted under exemption 10(5)(e) and regulation 11. The public interest test was applied to these documents and we came to the same conclusion as described in Paragraph 3 of Annex A.

Annex B

Ineos Chemical meeting emails

From: <Redacted - Regulation 11> - Personal data
Sent: Monday, June 5, 2023 5:24 PM
To: Cabinet Secretary for Wellbeing Economy, Fair Work & Energy <Redacted -</p>
Regulation 11> - Personal data @gov.scot>; Minister for Energy <Redacted -</p>
Regulation 11>@gov.scot>
Cc: Berge K (Kersti) <Redacted - Regulation 11>@gov.scot>; Hogg A (Andrew)
<Redacted - Regulation 11>@gov.scot>; <Redacted - Regulation 11>@gov.scot>; McCaig C (Callum) <Redacted -</p>
Regulation 11>@gov.scot>
Subject: Briefing - Mr Gray and Ms Martin meeting and site visit at INEOS
Grangemouth

Hi <Redacted - Regulation 11>

Please find attached the briefing for Mr Gray and Ms Martin's meeting and site visit at INEOS Grangemouth on Thursday 8 June 2023. To confirm, Mr Gray will depart after the meeting / presentation and Ms Martin will stay for the site tour, departing at 12:00.

I trust that Ministerial car arrangements have been made by private office; instructions for the drivers are enclosed within the briefing.

Best wishes

<Redacted - Regulation 11>

<Redacted - Regulation 11>| Policy Executive | Commercial Projects | Energy Industries Energy and Climate Change Directorate | Scottish Government 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU T: <Redacted - Regulation 11>M: <Redacted - Regulation 11>



From: <Redacted - Regulation 11> <Redacted - Regulation 11>@ineos.com>
Sent: Tuesday, June 6, 2023 2:13 PM
To: <Redacted - Regulation 11>@gov.scot>
Cc: <Redacted - Regulation 11>@gov.scot>; <Redacted - Regulation 11>@gov.scot>
Subject: RE: Visit 8 June 23 - Mr Gray & Ms Martin

<Redacted - Regulation 11>,

Thanks for letting me know – I wo;; update arrangements accordingly.

Regards,

<Redacted - Regulation 11>.

<Redacted - Regulation 11> INEOS | Grangemouth | Sustainability Director | <Redacted - Regulation 11> | <Redacted - Regulation 11>@ineos.com

From: <Redacted - Regulation 11>@gov.scot <Redacted - Regulation 11>@gov.scot>
Sent: 06 June 2023 11:09
To: <Redacted - Regulation 11>@ineos.com>
Cc: <Redacted - Regulation 11>@gov.scot; <Redacted - Regulation 11>@gov.scot
Subject: RE: Visit 8 June 23 - Mr Gray & Ms Martin

ATTENTION: This is an External message. Be cautious.

Hi <Redacted - Regulation 11>

Hope you are well.

Unfortunately, due to last minute diary pressures, Andy Hogg is unable to join us on Thursday. He sends his sincere apologies.

Therefore, it will be <Redacted - Regulation 11> and myself as official support from SG.

Kind regards

<Redacted - Regulation 11>

<Redacted - Regulation 11>| Energy Industries Division | Scottish Government <Redacted - Regulation 11>| <Redacted - Regulation 11>

From: <Redacted - Regulation 11>@ineos.com>
Sent: Friday, June 2, 2023 7:37 PM
To: <Redacted - Regulation 11>@gov.scot>
Cc: <Redacted - Regulation 11>@gov.scot>; <Redacted - Regulation 11>@gov.scot>
Subject: RE: Visit 8 June 23 - Mr Gray & Ms Martin

<Redacted - Regulation 11>,

I have hopefully got all of the last arrangements in place today, so should be good for 09:00 arrival and follow the agenda that you have outlined. I have asked for some sandwiches for 12:00, which should allow us to have a catch up over lunch.

Thanks,

<Redacted - Regulation 11>.

<Redacted - Regulation 11> | INEOS | Grangemouth | Sustainability Director | <Redacted - Regulation 11> | <Redacted - Regulation 11>@ineos.com

From: <Redacted - Regulation 11>@gov.scot <Redacted - Regulation
11>@gov.scot>
Sent: 02 June 2023 14:33
To<Redacted - Regulation 11>@ineos.com>
Cc: <Redacted - Regulation 11>@gov.scot; <Redacted - Regulation 11>@gov.scot
Subject: RE: Visit 8 June 23 - Mr Gray & Ms Martin

ATTENTION: This is an External message. Be cautious.

<Redacted - Regulation 11>

Hope you are well.

As discussed, ahead of our meeting on Thursday next week, I have included the agenda we have proposed to Mr Gray and Ms Martin.

- 1. Ministers arrive at INEOS HQ (09:00)
- 2. INEOS presentation on low carbon projects and discussion (09:05-10:15)
- 3. Mr Gray departs (10:15)
- 4. Site Tour (10:15-12:00)
- 5. Ms Martin departs (12:00)

Thank you again for offering lunch, unfortunately Ms Martin has to leave at 12pm to attend Parliament and will not therefore be able to stay for lunch, however the rest of the team are available to stay (i.e. Andy<Redacted - Regulation 11>and I).

I have included within the table below a list of attendees from our side and their PPE info. Can we please secure 8 parking spaces also?

Attendees	PPE Sizing
Cabinet Secretary for Wellbeing Economy, Fair Work and Energy – Mr Gray	Not attending site tour
<redacted -="" 11="" regulation="">- Private secretary to Mr Gray</redacted>	Not attending site tour
Minister for Energy – Ms Martin	<redacted -="" 11="" regulation=""></redacted>
<redacted -="" 11="" regulation="">- Private Secretary to Ms Martin</redacted>	<redacted -="" 11="" regulation="">, has own steel toe cap boots</redacted>
Andy Hogg - SG Deputy Director, Energy Industries Division	<redacted -="" 11="" regulation=""></redacted>
<redacted -="" 11="" regulation="">- SG Head of Critical Energy Infrastructure</redacted>	<redacted -="" 11="" regulation=""></redacted>
<redacted -="" 11="" regulation="">- SG Senior Commercial Advisor</redacted>	<redacted -="" 11="" regulation=""></redacted>
<redacted -="" 11="" regulation=""> (Policy Executive)</redacted>	<redacted -="" 11="" regulation=""></redacted>

Would it be possible if you could please let me know whether <Redacted - Regulation 11> is attending when you find out, so we can add it into our Ministerial Briefings?

Kind regards

<Redacted - Regulation 11>

<Redacted - Regulation 11>| Energy Industries Division | Scottish Government <Redacted - Regulation 11>@gov.scot <Redacted - Regulation 11>

From: <Redacted - Regulation 11> Sent: 30 May 2023 13:12 To: <Redacted - Regulation 11>@ineos.com> Cc: <Redacted - Regulation 11>@gov.scot>; <Redacted - Regulation 11>@gov.scot> Subject: RE: Visit 8 June 23 - Mr Gray & Ms Martin

Hi <Redacted - Regulation 11>

Hope you are well and had a good bank holiday weekend.

Thank you for reaching out re Mr Gray and Ms Martin's visit next Thursday.

In terms of the agenda, for the session Mr Gray's Private office have confirmed he is available from 9am – 10:15am however, is unable to attend the site tour due to Parliamentary Business. Ms Martin is available for the tour and I have been in touch with her office to confirm sizing etc. From a discussion with **<Redacted - Regulation 11>** it would be great if the structure for the day could follow a similar one to Ms McAllen's visit a few weeks ago. It would also be good if we could please set up a quick call to chat through discussion points, particularly for the session with Mr Gray present so we can brief him accordingly.

If it is possible, can I please confirm numbers and sizing etc in the next couple of days, I am just waiting on people coming back to me etc?

I have also reached out to Ms Martin's office re lunch and will let you know asap.

Kind regards

<Redacted - Regulation 11>

<Redacted - Regulation 11>| Energy Industries Division | Scottish Government <Redacted - Regulation 11>| <Redacted - Regulation 11>

From: <Redacted - Regulation 11>@ineos.com> Sent: 30 May 2023 08:04 To: <Redacted - Regulation 11>@gov.scot> Cc: <Redacted - Regulation 11>@gov.scot> Subject: Visit 8 June 23 - Mr Gray & Ms Martin

<Redacted - Regulation 11>,

<Redacted - Regulation 11> has asked that I coordinate with you with regards to the planned visit for Thursday 8th June of Mr Gray and Ms Martin.

I understand that the intention is to arrive for 9:00, with a briefing planned until 10:15 with both present.

We can then provide a site tour for either or (preferably) both Mr Gray and Ms Martin, which generally we should allow at least 90 minutes for, to allow time to change in to PPE.

If we allowed until c. 12:00, then we would be happy to provide a light lunch prior to departure with a chance for further conversation over lunch.

Please can you confirm:

- what schedule / agenda you would wish to follow.
- who will be present for the session (so we can arrange security passes).
- who will tour site, including shoe size and sizing for overalls
- if you wish to stay for lunch, numbers and any food allergies / requirements

Happy to catch up by phone, if that is easier (I am in meetings / travelling in London today).

#### Thanks,

<Redacted - Regulation 11> <Redacted - Regulation 11>| INEOS | Grangemouth | Sustainability Director | <Redacted -Regulation 11>| <Redacted - Regulation 11>| <Redacted - Regulation 11>@ineos.com

#### Ineos Chemicals Ltd on 8/06/2023

## INEOS Visit briefing

What	<ul> <li>You are having an introductory meeting with the Chairman of INEOS Grangemouth, Andrew Gardner, and members of his leadership team, during which you will receive an update on the business' transition and decarbonisation projects, <redacted -="" 10(5)(e)="" regulation=""></redacted></li> <li>Mr Gray will depart following the meeting and Ms Martin will stay for a tour of the site.</li> <li>No speaking note is required for this visit, however suggested lines to take are included in the Meeting Agenda and Steering Brief in <u>Annex A</u>.</li> </ul>
Where	INEOS Grangemouth HQ, 1 Inchyra Road, Grangemouth, FK3 9XB
When	Thursday 8 June 2023         09:00-12:00         Agenda         6. Ministers arrive at INEOS HQ (09:00)         7. INEOS presentation (09:05-10:15)         8. Mr Gray departs (10:15)         9. Site Tour (10:15-12:00)         10. Ms Martin departs (12:00)
	10. Ms Martin departs (12:00) Detailed agenda in <u>Annex A</u> .

Key message(s)	• I know that you established a strong and successful working relationship with Michael Matheson and today is about renewing that relationship as we look towards accelerating Grangemouth's transition.
	• I am absolutely clear that <b>all roads to net zero go through</b> <b>Grangemouth</b> and therefore it is critical that we get the next chapter of the site's decarbonisation story right if we are to meet our climate and Just Transition obligations.
	<ul> <li><redacted -="" 10(5)(e)="" regulation=""></redacted></li> </ul>
Who	Andrew Gardner, Chairman, INEOS Grangemouth <redacted -="" 11="" regulation="">, Energy Business Manager, INEOS <redacted -="" 11="" regulation="">, Head of Legal, Petroineos</redacted></redacted>
Why	Purpose of Visit:
	(1) To receive an introduction to INEOS' operations at Grangemouth and its ambitions as regards <redacted -<br="">Regulation 10(5)(e)&gt;</redacted>
	(2) To pick up and progress existing engagement between SG and INEOS via previous Cabinet Secretary for NZET Mr Matheson.
	Background of Visit
	You are both meeting Andrew Gardner after he extended an invite to Mr Gray to visit the complex and receive an update on INEOS' investment plans at Grangemouth.
	One of Mr Gray's portfolio commitments it that, by 2026, he will have "worked with industry to accelerate decarbonisation and create energy transition opportunities at major industrial sites such as <u>Grangemouth</u> ."
	Mr Gray will recall that he is now the lead Minister on <redacted -<br="">Regulation 10(5)(e)&gt;. Mr Gardner is on the Board of the refinery, however today's meeting will focus on the wider INEOS operations and investments at site. Further background on <redacted -="" 10(5)(e)="" regulation=""></redacted></redacted>
	The project that INEOS <redacted -="" 10(5)(e)="" regulation=""> is its proposed Blue Hydrogen Fuel Switching project at Grangemouth which would see the INEOS Olefins and Polymers (O&amp;P) asset switch its power source from natural gas to blue hydrogen, and it is proposed that carbon emissions would be evacuated via a mooted connecting pipeline to the Acorn Carbon Capture Cluster.</redacted>

	INEOS has <redacted -="" 10(5)(e)="" regulation="">, and that the business <redacted -="" 10(5)(e)="" regulation=""></redacted></redacted>
Supporting official	<b>Redacted - Regulation 11&gt;</b> – Head of Critical Energy Infrastructure and Commercial Projects, DECC: Energy Industries <b>Ext:</b> <redacted -<br="">Regulation 11&gt;M: <redacted -="" 11="" regulation=""></redacted></redacted>
	<b>Redacted - Regulation 11&gt;</b> — Senior Commercial Adviser, DECC: Energy Industries <b>T</b> Ext: <redacted -="" 11="" regulation=""> M: <redacted -="" regulation<br="">11&gt;</redacted></redacted>
	<b>-Redacted - Regulation 11&gt;</b> — Commercial Projects Policy Executive, DECC: Energy Industries  Ext: <redacted -="" 11="" regulation=""> M: <redacted -="" 11="" regulation=""></redacted></redacted>
Briefing	Annex A: Meeting Programme and Steering Brief
contents	Annex B: Site Visit Itinerary [Ms Martin only] Annex C: Biographies
	Annex D: INEOS Grangemouth Background
	<b>Annex E:</b> Hot Topics (oil market, gas market, support for non-domestic consumers, Scottish CCUS Cluster, and Hydrogen)
Dress code	PPE will be provided by INEOS for the site tour, and clothing and shoe sizes have been provided in advance.
Greeting party and	Officials will meet you at the main entrance to INEOS HQ and guide you to the meeting location.
specific	
meeting point on arrival	
Specific	There is a car park available for Ministerial cars to utilise and Ministers' cars
entrance for Ministerial	will be met by security at the site entrance before being guided towards a parking location.
car/parking	
arrangements	<u>Ministerial Car Drivers should note that vehicles should be reverse</u> parked into spaces, in line with Health and Safety rules at the site.
	parked into spaces, in the with realth and Safety fules at the site.

# ANNEX A – MEETING AGENDA AND STEERING BRIEF

00.00		
09:00	Ministers arrive at INEOS HQ	
	You will meet officials at the INEOS Grangemouth HQ main entrance.	
09:05-09:20	Introductions with INEOS team	
	Andrew Gardner, <redacted -="" 11="" regulation=""> and <redacted -="" 11="" regulation=""> will greet you after your arrival and there will be time for introductions and refreshments (Biographies in <u>Annex C</u>).</redacted></redacted>	
Lines to take		
Suggested I	ntroductions	
much I busine	you for inviting us to visit your complex and HQ today. We are very ooking forward to hearing more about your plans for the three INEOS sses at Grangemouth, and the site visit will give me (Ms Martin) an unity to contextualise these plans as I will get to see what these assets close.	
Work a clear t centre	• <u>Mr Gray:</u> My new role as Cabinet Secretary for Wellbeing Economy, Fair Work and Energy certainly encompasses a wide ranging brief, however I are clear that the work that your business does here at Grangemouth is at the centre of the three strands of my portfolio. I want to build on the strong relationship established by my predecessor, Michael Matheson, with INEOS	
to eng separa to this	Res Results in the later to be a second s	
colleag plans y	• I am aware that you kindly provided an update and site tour to my Ministeria colleague Mairi McAllan. Her input on your transition and decarbonisation plans will be crucial as she has particular interest in and focus on the just transition elements of Grangemouth's journey to net zero.	
Importance of	of Grangemouth	
Cabine	<ul> <li><u>Mr Gray</u>: You might be aware that, when the First Minister appointed me Cabinet Secretary, I was asked to set out a range of commitments that, by working with my Cabinet colleagues, I commit to have achieved by 2026.</li> </ul>	
sites, i to reaf comple	• <u>Mr Gray:</u> The inclusion of Grangemouth, and other similar major industrial sites, in these important commitments was never in doubt and I am delighted to reaffirm to you, today, my commitment to work with the operators at this complex to accelerate decarbonisation and create energy transition opportunities here at Grangemouth.	

• Grangemouth has a clear opportunity to realise, building on the industrial heritage and the extensive range of knowledge, skills and experience already located there.		
exemp	• This is an opportunity that could further Grangemouth's status as an exemplar low-carbon cluster, whilst maintaining, re-purposing and growing skills and training for jobs that will be necessary in a net zero economy.	
• Grangemouth is ideally placed to produce future products in a net zero economy and there is significant potential for carbon intensive industrial clusters, such as Grangemouth, to unlock deeper decarbonisation across Scotland through the supply of low carbon fuels, such as hydrogen, to other sectors or regions, for example.		
09:20-09:50	INEOS Presentation	
	INEOS will present their new Just Transition Projects at the site including:	
	<ol> <li>Background to the Grangemouth site;</li> </ol>	
	2. INEOS Blue Hydrogen Fuel Switching Project	
	<ol> <li>CCUS and importance of the Scottish Cluster to INEOS' decarbonisation plans.</li> </ol>	
	Background	
	INEOS <redacted -="" 10(5)(e)="" regulation=""> in support of its move to net-zero, <redacted -="" 10(5)(e)="" regulation=""> design of the £1bn blue hydrogen facility announced in September 2021. In 2022, <redacted - Regulation 10(5)(e)&gt; - (confidentiality of commercial information). viable system for evacuation of captured carbon is essential to key aspects of INEOS Grangemouth's transition to net-zero, particularly for the realization of its <u>£1bn</u> hydrogen plant. Much of this rests on the wider Scottish Cluster (of which INEOS is a key partner) securing Track 2 status under the cluster sequencing fund.</redacted </redacted></redacted>	
	<redacted -="" 10(5)(e)="" regulation="">. It is worth noting that INEOS <redacted -="" 10(5)(e)="" regulation=""></redacted></redacted>	
	<redacted -="" 10(5)(e)="" regulation=""></redacted>	
	Andrew Gardner also oversees INEOS' interests in the Grangemouth Refinery, a joint venture with Petrochina. There is <redacted -<br="">Regulation 10(5)(e)&gt;</redacted>	
09:50-10:15	Refreshments and open discussion	
Lines to take		
INEOS' Net Zero Investments		

- I am aware of this work and that your team works extremely closely with SG officials. We are also aware and as you know appreciative of <Redacted Regulation 10(5)(e)>
- <u>I know that <Redacted Regulation 10(5)(e)></u>, I understand my officials <<u><Redacted Regulation 10(5)(e)></u>
- As you will appreciate, <Redacted Regulation 10(5)(e)>
- Can you confirm <Redacted Regulation 10(5)(e)>

# CCUS and INEOS Hydrogen Plant

- I fully appreciate that as we discuss all of this, there is the wider requirement for clarity on the development of the Scottish Cluster within Track 2 Cluster sequencing funding from the UK Government.
- The Scottish Government supports the development of Carbon Capture Utilisation Storage (CCUS) as a common whole-system decarbonisation infrastructure with the flexibility to adapt over time to play a central role across the decarbonisation strategies of key sectors such as heat, industry and power.
- The Scottish Cluster is absolutely vital for a just transition to net zero not just in Scotland where the target of reaching Net Zero is 2045, but also for the UK's 2050 target.
- We welcome the inclusion of Acorn as one of the 2 projects that are best able to meet Track 2 eligibility, which is confirmation of the strength of the original proposition. However, we are bitterly disappointed that there is still no timetabled solution for when UK Government will confirm Track-2, which adds further delay to an already delayed process.
- Despite the narrative from UK Government about supporting CCUS they continue to fail to provide a clear timeline for Track 2, merely confirming that they "intend to provide an update in the summer, following the closure of the expression of interest process". This is entirely unacceptable and layers further uncertainty on top of never-ending delays which compromises our climate change commitments and just transition ambitions.

# Oil and Gas Markets

- I know that there remains a great deal of uncertainty in the market due to the ongoing conflict in Ukraine so I would welcome an update on the impact – both positive and negative – these pressures are having on the INEOS businesses at Grangemouth.
  - <Redacted Regulation 10(5)(e)>

<Redacted - Regulation 10(5)(e)>

- You will be aware of <Redacted Regulation 10(5)(e)>
- I understand that <Redacted Regulation 10(5)(e)> and fully appreciate
   <Redacted Regulation 10(5)(e)>
- And I know our teams are closely engaged <Redacted Regulation 10(5)(e)>

- <Redacted Regulation 10(5)(e)>
- <Redacted Regulation 10(5)(e)>
- I understand that INEOS <Redacted Regulation 10(5)(e)>

10:15	Meeting Close and Mr Gray departs
	Mr Gray will depart the meeting, his car will collect him from the main entrance of the INEOS Grangemouth HQ and will take him to his next engagement.

# ANNEX B – SITE VISIT ITINERARY

10:15-10:30	PPE	
	All parties will put on their PPE before proceeding with the on-site element of the visit. All clothing and footwear sizes have been provided in advance.	
10:30-11:30	Site Tour	
	The INEOS team will facilitate travel around the site. This will focus on the ethane tank which provides a good view over the site. Elements of the tour that involve <b>height</b> will be weather dependant and a "Take 5" risk assessment will be conducted ahead of time.	
	Please note: no sources of ignition are to be brought on site, including battery operated equipment such as mobile phones or smart watches. All belongings can be stored securely in the meeting room which is lockable.	
11:30-11:45	Travel to INEOS HQ	
	The INEOS team will facilitate travel back to INEOS HQ.	
11:45-12:00	Remove PPE and Close	
	You will remove your PPE and collect belongings before closing out the visit with INEOS.	
Suggested c	Suggested closing remarks	
• Thank site.	• Thank you for taking the time today to provide a tour of this truly impressive site.	
• As Mr	<ul> <li>As Mr Gray said, we should keep in touch <redacted -="" 10(5)(e)="" regulation=""></redacted></li> </ul>	
• It is clear to see that Grangemouth is a centre for engineering and manufacturing excellence and it is crucial that we now work together to harness the site's expertise to secure a prosperous future for the assets, those who work there, and those who live in Grangemouth.		
12:00	Minister departs	
	Your car will collect you from the main entrance of the INEOS Grangemouth HQ and will take you to your next engagement	

#### ANNEX C – BIOGRAPHIES



Andrew Gardner, Chairman, INEOS Grangemouth

Andrew is the Chairman of INEOS Grangemouth, CEO of the INEOS Forties Pipeline System (FPS business) and is also on the board of Petroineos (refinery) and was previously the acting CEO of INEOS Olefins and Polymers (O&P). He has strategic interests across all three businesses.

Andrew has spent his entire career across the Grangemouth businesses, from apprentice level to CEO – and has a close relationship with shareholders.

#### <Redacted - Regulation 11>, Sustainability Director, INEOS O&P

<Redacted - Regulation 11> Currently <Redacted - Regulation 11> is Energy Business Manager at INEOS Grangemouth, leading on the commercial aspects of energy and utilities delivery to the manufacturing businesses.

<Redacted - Regulation 11>, Head of Legal, Petrolneos

<Redacted - Regulation 11> is Petroineos' (refinery) Head of Legal for Scotland <Redacted - Regulation 11>

# ANNEX D – INEOS GRANGEMOUTH BACKGROUND

#### **INEOS Grangemouth Cluster Operations**

#### **INEOS Petrochemicals Plant**

- The Petrochemicals plant is owned and operated by INEOS Olefins and Polymers (O&P) UK. It includes one of only 4 ethane gas crackers operating in Europe and <Redacted - Regulation 10(5)(e)>. These products are used in pharmaceuticals, medical appliances, insulation and food packaging.
- In 2019 it was announced that a new £350m steam powered new energy plant was being constructed, with plans to be operational in 2023/24 <Redacted - Regulation 10(5)(e)>
- The plant employs <Redacted Regulation 10(5)(e)>.

#### **INEOS Forties Pipeline System**

- The Forties Pipeline System opened in 1975 to transport crude oil from BP's Forties field. The system now links over 80 North Sea oil and gas fields <Redacted -Regulation 10(5)(e)> INEOS FPS Ltd acquired the system from BP in late 2017 and announced on 27 February 2019 its intention to invest £500m in the FPS.
- Investment intends to overhaul the FPS, boosting the pipeline's reliability, incorporating the latest environmental systems and technology.
- INEOS FPS Ltd considers that this investment will extend the pipeline's commercial viability into the 2040s and will ensure that the site meets necessary environmental compliance standards.
- The business employs <Redacted Regulation 10(5)(e)>.

#### Petroineos Refinery

- As Scotland's only refinery, Grangemouth has significant economic and strategic importance; employing <Redacted Regulation 10(5)(e)>.
- The Grangemouth refinery <Redacted Regulation 10(5)(e)>which is <Redacted Regulation 10(5)(e)>Around <Redacted Regulation 10(5)(e)>
- The refinery is owned and operated by Petroineos (PI) a joint venture (JV) formed in 2011 by INEOS and Petrochina (PC) (a subsidiary of Chinese state owned oil major CNPC, which owns 26 refineries worldwide). <Redacted - Regulation 10(5)(e)>
- The refinery and the FPS <Redacted Regulation 10(5)(e)>

#### **Recent Engagement with INEOS**

Mr Matheson, in his previous role as Cabinet Secretary for Net Zero, Energy and Transport, <Redacted - Regulation 10(5)(e)>and last met Andrew Gardner, alongside then Deputy First Minister, John Swinney on 2 March to discuss <Redacted - Regulation 10(5)(e)> Ms McAllan met Andrew Gardner for an introductory session and site tour at Grangemouth on 19 April 2023.

### **Overview of INEOS' Existing Sustainability Investments**

#### New Energy Plant (NEP)

In February 2019, INEOS O&P announced investment of £350m in a new state-of-theart energy efficient power plant at Grangemouth <Redacted - Regulation 10(5)(e)>. The New Energy Plant (NEP) will supply steam and power to the three INEOS businesses and will replace the 1960s/70s vintage power station which has supplied power and steam to the refinery and petrochemicals plants for over 40 years.

Once operational, the NEP will act as a driver to:

- increase mechanical reliability and reduce maintenance costs; and
- improve environmental performance.

The NEP's design employs Best Available Technology (BAT), which will allow for:

- increased energy efficiency; and
- the reduction of emissions of site's steam and power by ~150,000 tonnes CO<sub>2</sub> per year (equivalent to ~86,000 cars being taken off the roads of Scotland)

At the peak of construction, 400 workers will be on site <Redacted - Regulation 10(5)(e)>

One of the key features of the NEP is that it is flexible in terms of the feedstocks it can use. Initially the plant will use natural gas but the design criteria provides the option to use hydrogen - both blue and green in the future.

**INEOS has** <Redacted - Regulation 10(5)(e)>

<Redacted - Regulation 10(5)(e)>

INEOS is <Redacted - Regulation 10(5)(e)>

#### **Blue Hydrogen Fuel Switching Project**

<u>Project:</u> INEOS' announcement in 2021 of £1 billion spend to enable this next phase of the transition to net zero focuses on a move to the production and use of blue hydrogen by all businesses at the Grangemouth site accompanied by carbon capture and storage of at least 1 million tonnes per annum of CO2 by 2030. This will include capturing CO2 from existing hydrogen production and the construction of a world-scale carbon capture enabled hydrogen production plant linked to the Scottish Cluster.

<Redacted - Regulation 10(5)(e)>

Key to the success of this <Redacted - Regulation 10(5)(e)> INEOS is <Redacted - Regulation 10(5)(e)>.

<Redacted - Regulation 10(5)(e)> <Redacted - Regulation 10(5)(e)>

<Redacted - Regulation 10(5)(e)>. This will ensure that <Redacted - Regulation 10(5)(e)>. To this end <Redacted - Regulation 10(5)(e)>

On 2 March 2023, Andrew Gardner and Petrochina International Chief Executive Mr Junli Wu met, separately, then Cab Sec NZET Mr Matheson and then DFM John Swinney to discuss <Redacted - Regulation 10(5)(e)>. Both Ministers <Redacted - Regulation 10(5)(e)>

<Redacted - Regulation 10(5)(e)>

The ongoing conflict in Ukraine and associated international sanctions on Russian crude and distillates has seen <Redacted - Regulation 10(5)(e)> <Redacted - Regulation 10(5)(e)>Mr Matheson <Redacted - Regulation 10(5)(e)> at the site and <Redacted - Regulation 10(5)(e)>

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<Redacted - Regulation 10(5)(e)>

# ANNEX E – HOT TOPICS

<Redacted - Regulation 10(5)(e)> <Redacted - Regulation 10(5)(e)>

## Support for non-domestic consumers

# Energy Bills Discount Scheme (EBDS)

- On 9 January the UK Government announced that the Energy Bills Discount Scheme (EBDS) would replace the Energy Bills Relief Scheme as the mechanism to support businesses with energy costs from 1 April 2023.
- The EBDS is a non-targeted package of support for all non-domestic users, including charities and the public sector, and is being delivered through a fixed unit price discount on gas and electricity bills.
- The level of support provided to businesses is significantly reduced in comparison to the EBRS (by appx. 70%). HMT have advised that this reduced support reflects the fall in wholesale energy prices since last September and that the previous EBRS was fiscally unsustainable.
- HMT have advised that the total cost of the scheme will be £5.5bn (down from the estimated £18bn cost of the preceding scheme).
- The EBDS runs from **1 April 2023 to 31 March 2024** and is led by DESNZ. (HMT lead on the design of the scheme with DESNZ delivering it).

# Eligible Energy and Trade Intensive Industries (ETII) Scheme are entitled to a further discount

- These businesses receive a discount reflecting the difference between a price threshold and the relevant wholesale price.
- The price threshold for the scheme is £99/MWh for gas and £185/MWh for electricity.
- This discount only applies to 70% of energy volumes and is subject to a 'maximum discount' of £40.0/MWh for gas and £89.1/MWh for electricity.
- Firms with primary operations in the sectors listed on a ETII list published by HMT are eligible for support under the ETII scheme.
- Many of our stakeholders (food and drink sector have made strong representation to the UKG through the food and drink policy team) have expressed concern that they are not included on the current ETII list and therefore don't benefit from the enhanced support.

 Ahead of the Spring Budget, we wrote to the UK Government calling for reassurance that the ETII list be widened as part of the Budget process to allow Scottish businesses to receive the support they need and are disappointed this didn't happen.

## Lines to Take

- The significant cut by the UK Government in support for businesses with their energy costs is very concerning. We have been clear that any continued support should be aimed at those businesses and sectors who need it the most.
- We called for extra support for non-domestic users in the UKG Spring Budget and are disappointed this didn't happen.
- Scottish ministers requested a meeting with UK Government counterparts to discuss this serious issue. A meeting between Gillian Martin and UK Government Minister for Energy Consumers and Affordability, Amanda Solloway has now been arranged for 6 June 2023.
- We called for extra support for non-domestic users and alternative fuel users as part of the UK Government's Spring Budget and are disappointed this didn't happen.

#### Scottish CCUS Cluster (Acorn)

#### Scottish Government policy position on CCUS

- The Scottish Government supports the development of Carbon Capture, Utilisation and Storage (CCUS) as a common whole-system decarbonisation infrastructure with the flexibility to adapt over time to play a central role across the decarbonisation strategies of key sectors such as heat, industry and power.
- As set out in the Bute House Agreement, the Scottish Government agrees that any strategy for deployment of CCUS must enable decarbonisation at pace and cannot be used to justify unsustainable levels of fossil fuel extraction or impede Scotland's just transition to net zero.
- We remain committed to supporting the development and deployment of the Scottish Cluster and CCUS technology, and have committed £80 million from our Emerging Energy Technologies Fund to accelerate and scale its deployment. Due to delays with UK Government announcing the Scottish Cluster, we have reprofiled our offer of £80 million financial support into subsequent years.

#### The case for CCUS

- CCUS is vital for a just transition to net zero. Advice from 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. There is no technological alternative currently available for key strategic and economically significant industries.

 Scottish Government economic scenario analysis shows CCUS would have a positive impact on the Scottish economy. In 2045 Scottish GDP could be 1.3-2.3% (£3.8Bn-£6.7Bn) higher in scenarios with CCUS, than without.

#### <u>Hydrogen</u>

## Hydrogen at Grangemouth

- Grangemouth is already one of the largest producers and consumer of Hydrogen in Scotland. The skills and experience the workforce at Grangemouth has gained in handling this gas over many decades stand the cluster in good stead for transitioning to the future.
- This gas is a critical component in attaining net zero (and in Scotland's future energy system in particular) and, as the largest producer of hydrogen in the world, the downstream sector could maintain and grow its role in producing and delivering zero-carbon emitting hydrogen to consumers – across industry, and potentially to transport and domestic sectors.
- It is widely accepted that Hydrogen will be a crucial technology in the transition to Net Zero. This is particularly evident in large Industrial sites where many of the existing processes require high temperatures which currently are challenging for electrification.
- This is a view shared by INEOS who in 2021 announced their intention to construct a "world scale" low carbon hydrogen production plant at Grangemouth. This £1bn + project forms a key pillar in the INEOS Net Zero Roadmap which is aligned with the Scottish Government's own net zero 2045 target.
- Industrial complexes such as Grangemouth present a significant decarbonisation challenge and it will ultimately be a combination of a number of different solutions converging that represent the end solution to this challenge.

# Top Lines

- The final Hydrogen Action Plan, published on 14 December 2022, sets out the strategic approach and actions required to support the development of the hydrogen economy in Scotland over the course of this Parliament.
- Hydrogen will be a key part of the net zero journey. Complementary alongside electricity, hydrogen will play a role in industrial decarbonisation, transport, grid balancing and the decarbonisation of other sectors including parts of our domestic heating systems.
- The development of a domestic hydrogen sector and hydrogen production for export, supported by a strong supply chain, will play an important role in supporting a just transition to net zero by 2045 and presents significant long-term economic opportunities.
- 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 supported by a £100m capital funding programme, designed to accelerate and maximise the production of renewable hydrogen in Scotland.
- The first tranche of this £100m, the £10m Hydrogen Innovation Scheme, opened in June and will support the production, storage and integration of renewable hydrogen in our energy system. The remaining £90m Green Hydrogen Fund will be launched in 2023.
- This investment is aimed at driving Scotland's hydrogen production capability to meet an ambition of at least 5GW of installed renewable and low carbon hydrogen capacity by 2030 and 25GW by 2045.
- The unpredictable and uncertain outlook for global energy markets has only strengthened the case for accelerating our domestic hydrogen production. The Action Plan has been updated to reflect consultation feedback on the draft Action Plan and the energy developments throughout 2022.
- A 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.
- The opportunity for Scotland within the developing global hydrogen market is significant. This Hydrogen Action Plans sets out the steps we will take to support Scotland's growing hydrogen economy and sends a strong signal to the market for future hydrogen development.
- In September 2022, we also published a Scottish Hydrogen Investment Proposition to promote inward investment in hydrogen and the export of green hydrogen.

#### **INEOS** meeting readout

#### Meeting with Chairman of INEOS' businesses at Grangemouth

#### **Thursday 8 June 2023** 09:00-10:15

INEOS Grangemouth HQ, 1 Inchyra Rd, Grangemouth FK3 9XB

#### **Present**

Neil Gray MSP, Cabinet Secretary for Wellbeing Economy, Fair Work and Energy, SG Gillian Martin MSP, Minister for Energy, SG Andrew Gardner, Chairman of INEOS' businesses at Grangemouth, INEOS <Redacted - Regulation 11>, Sustainability Director, INEOS

<Redacted - Regulation 11>, Head of Critical Energy Infrastructure & Commercial Projects, SG

<Redacted - Regulation 11>, Senior Commercial Adviser, SG

<Redacted - Regulation 11>, Commercial Projects Policy Executive, SG

<Redacted - Regulation 11>, Deputy Private Secretary to Mr Gray, SG

<Redacted - Regulation 11>, Private Secretary to Ms Martin, SG

# <u>Agenda</u>

*Mr* Gray and Ms Martin received a presentation from Andrew Gardner on the INEOS owned assets at Grangemouth and the business' Net Zero Roadmap for the site, which was followed by a short open discussion.

# Readout

- 1. Andrew Gardner (AG) and <Redacted Regulation 11> provided brief introductions on their roles and the Grangemouth complex. AG is Chairman of the INEOS-owned businesses at Grangemouth, CEO of INEOS FPS, and sits on the <Redacted Regulation 10(5)(e)>. <Redacted Regulation 11> is Sustainability Director at Grangemouth with responsibility reaching across all of the INEOS businesses at Grangemouth.
- 2. AG stressed the choice of either producing single use products in Scotland in a decarbonised manner or importing these products from locations where it is not clear that decarbonisation is at the forefront of the manufacturing process. Mr Gray and Ms Martin both agreed that offshoring emissions as an alternative to retaining fossil fuel manufacturing in Scotland was not consistent with Scotland's Just Transition to Net Zero.
- 3. AG provided an overview of the three INEOS' owned assets at Grangemouth: (1) Petroineos JV Refinery; (2) INEOS Olefins and Polymers; and (3) INEOS FPS. He stressed the criticality of the refinery to Scotland's road and air fuel security; the petrochemicals plant to Scotland's medical supplies sector; and FPS to the movement of the majority of North Sea oil and some of its natural gas. AG noted the owner of INEOS' (Jim Ratcliffe) passion for UK manufacturing.
- 4. Following a question from the Cabinet Secretary as regards the petrochemicals plant's direct competitors, <Redacted Regulation 10(5)(e)>.
- 5. The <Redacted Regulation 10(5)(e)>is currently <Redacted Regulation 10(5)(e)>which is <Redacted Regulation 10(5)(e)>and is <Redacted Regulation 10(5)(e)>
- 6. AG said that <Redacted Regulation 10(5)(e)>. It is projected that <Redacted Regulation 10(5)(e)>. Mr Gray queried whether there was potential for the site to <Redacted Regulation 10(5)(e)>AG advised that <Redacted Regulation 10(5)(e)> and that <Redacted Regulation 10(5)(e)>. Ms Martin asked <Redacted Regulation 10(5)(e)>, which AG and <Redacted Regulation 11> confirmed was the case though dramatic reductions cannot be achieved through efficiency savings alone. Instead, it is the decarbonisation of <Redacted Regulation 10(5)(e)> on site which will drive the sharpest emissions reductions.
- 7. AG provided an overview of the key project being pursued by INEOS as a means to driving power related emissions reductions, which is the Blue Hydrogen Fuel Switching Project. The business estimates that this project will reduce emissions by 1 million tonnes and would <Redacted Regulation 10(5)(e)>. AG stressed that <Redacted Regulation 10(5)(e)>
- 8. There was a short discussion on current cost and technological capabilities in terms of blue hydrogen and green hydrogen production in Scotland, with <Redacted -

Regulation 10(5)(e)>. However, there was agreement that blue hydrogen will be utilised as a stepping stone to green hydrogen production, at scale, in the 2030s. INEOS agreed to share with the Ministers a <Redacted - Regulation 10(5)(e)>

- 9. There was agreement that the UK Government's decision not to bring forward the Scottish CCS Cluster as part of the sequencing process in 2021 significantly hindered Scotland's decarbonisation journey. Mr Gray and Ms Martin both reassured INEOS that they would continue to press UKG and industry on the importance of bringing forward the Scottish Cluster as part of track-2. AG stressed that there appears to be cross-party support for the Scottish Cluster, though he made the point that an announcement by UK Government in the coming months is necessary for the business to access funding for emitters as part of the sequencing process <Redacted Regulation 10(5)(e)>
- 10. INEOS is <Redacted Regulation 10(5)(e)>. Mr Gray suggested that SG should engage with <Redacted Regulation 10(5)(e)>emitters to ensure <Redacted Regulation 10(5)(e)>government are communicating the need for joint working to bring the Scottish Cluster forward, and to ensure that <Redacted Regulation 10(5)(e)>emitters are communicating to UK Government the economic and decarbonisation case for the Scottish Cluster.
- 11. The fuel switching project is <Redacted Regulation 10(5)(e)>and <Redacted Regulation 10(5)(e)>. Mr Gray <Redacted Regulation 10(5)(e)>
- 12. Mr Gray closed the meeting by thanking AG and <Redacted Regulation 11> for the presentation and the level of detail shared during the session. He reflected on the positive working relationship established by his predecessor, Mr Matheson, which has been maintained by officials, and reaffirmed his commitment to work with INEOS as it considers and implements its transition opportunities. He and Ms Martin would welcome further meetings with INEOS on the fuel switching project, and the Grangemouth site more widely, in due course.

Letters regarding INEOS meeting



Mr Neil Grey MSP Cabinet Secretary for Wellbeing Economy, Fair Work and Energy Scottish Government St Andrew's House Regent Road EDINBURGH EH1 3DG

INEOS	
1 Inchyra Road	
Grangemouth	
FK3 9XB	

www.ineos.com

31 March 2023

#### Confidential and Commercially Sensitive

Dear Mr Grey

#### Grangemouth Cluster: Introduction

On behalf of INEOS Group, I would like to congratulate you on your new role. Over many year, INEOS has forged a strong relationship with Scottish Government through our operations at the Grangemouth industrial complex.

Overview

As you may be aware, Grangemouth is Scotland's largest manufacturing base covering 1,700 acres and is home to:

- Grangemouth Refinery:
- Forties Pipeline System: landing and processing point for approximately North Sea oil and gas
  production with onwards domestic and internationally sales.
- Olefins & Polymers Petrochemical Plant: producing approximately of products per year, used as the building blocks in the manufacture of household items, including health & pharmaceuticals (PPE, equipment, medicines and vaccines), agriculture (equipment and fertilisers), electronics & technology (components and cable insulation) and food & beverages (food manufacture, preservation and packaging).

The Grangemouth Cluster (comprised INEOS Chemicals Grangemouth Limited, INEOS FPS Ltd and Petroineos Manufacturing Scotland Ltd) provides skilled employment to approx. national supply chain The Grangemouth Cluster is a material contributor Scotland's GDP.

Net Zero Commitment

The Grangemouth Cluster is committed to Net Zero by 2045. Since 2005, CO<sub>2</sub> emissions from the Grangemouth Cluster have reduced by the with a clear roadmap to reduce emissions by more than 2030 (more than reduction from 2005).

INEOS is currently developing a world scale blue hydrogen plant at Grangemouth which ties Grangemouth into the Acorn CCS Project as "anchor emitter". Once operational, this will reduce carbon emissions from site by over in tonnes per year, but critically we aim to be the base load to encourage the transition and wider decarbonisation of central Scotland.

Next Steps

We enjoyed a very collaborative relationship with Michael Matheson who visited the site a number of times. Once your diary permits, we would be delighted to welcome you to Grangemouth for personal introductions and a site tour.

We look forward to working with you and your team (whom we know well) and believe we can continue to be a key strategic partner for Scottish Government through the just transition toward net carbon zero.

#### Yours sincerely



Andrew Gardner Chairman, INEOS Grangemouth

Cabinet Secretary for Wellbeing Economy, Fair Work and Energy Rùnaire a' Chaibineit airson Eaconamaidh do Mhath Dhaoine, Obair Chothromach is Cumhachd Neil Gray MSP/BPA



Scottish Government Riaghaltas na h-Alba gov.scot

T:0300 244 4000 E : scottish.ministers@gov.scot

Andrew Gardner 1 Inchyra Road Grangemouth FK3 9XB

Our Reference: 202300353037

4 May 2023

Dear Andrew Gardner,

Thank you for your letter of 31 March 2023 which kindly welcomed me to my new role as Cabinet Secretary for Wellbeing Economy, Fair Work and Energy. I am aware of the overwhelmingly positive relationship that you built up with my predecessor Mr Matheson, which I am in no doubt supported the three INEOS owned businesses at Grangemouth through very difficult times during the Covid-19 pandemic. I understand that my Ministerial colleague Ms McAllan visited the site on 19 April 2023 and I have received a very positive readout of this meeting from my officials. I hope we can continue building this important partnership over the coming years.

As you rightly set out in your letter, the Grangemouth Refinery, the Forties Pipeline System, and the Petrochemical Plant are a source of high value employment and energy supplies both at Grangemouth and across Scotland. These assets also hold significant potential to play a central role in Scotland's just transition to net zero.

I would like to take the opportunity to restate this Government's commitment to work closely with INEOS

Scottish Ministers, special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See www.lobbving.scot

Tha Ministearanna h-Alba, an luchd-comhairleachaidh sònraichte agus Rùnaire Maireannach fo chumhachan Achd Coiteachaidh (Alba) 2016. Faicibh www.lobbying.scot

St Andrew's House, Regent Road, Edinburgh EH1 3DG www.gov.scot





This commitment to our close working and engagement is underpinned by the Scottish Government's recently published "<u>A fresh start</u>" Policy Prospectus which confirmed my commitment to "work with industry to accelerate decarbonisation and create energy transition opportunities at major industrial sites such as Grangemouth". I believe this demonstrates in the clearest terms that securing a prosperous future for the Grangemouth industrial cluster is very much an ambition shared by government and industry – and, likewise, the challenges inherent in achieving this ambition will be shared and tackled in partnership.

I understand that you provided a short update to both Mr Swinney and Mr Matheson in March, and I appreciate that I am therefore delighted to accept your invitation to visit Grangemouth in the near future

I very much look forward to working with you to maximise the economic contributions of the three INEOS businesses at Grangemouth and safeguarding – and continuing to grow – the industrial cluster's contribution to Scotland's Just Transition to Net Zero.

Yours sincerely

Nentera

NEIL GRAY

# NECCUS meetings

13 April comms regarding briefing From: <Redacted - Regulation 11> @gov.scot> Sent: Wednesday, April 12, 2023 9:53 AM To: Minister for Energy 2023 <MinisterEnergy@gov.scot> Cc: Hogg A (Andrew) <Andrew.Hogg@gov.scot>; <Redacted - Regulation 11> @gov.scot>; McCaig C (Callum) <Callum.Mccaig@gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot> Subject: RE: Briefing for Aberdeen Visit - Thursday 13 April - 09:30 - 12:30

Dear PO,

Please note there has been a slight revision in the schedule for Thursday – the Minister will now be having a virtual call with Sarah Potts, Storegga's Head of Hydrogen, rather than her discussion with <Redacted - Regulation 11>, their Hydrogen Asset Manager, the time and location of the Storegga meeting has not changed.

l've attached a revised briefing to this thread – the relevant page to replace is **page 9**.

If printing is no longer possible, updated details are as follows:

# Storegga One to One - 11:15 - 11:25

You will be meeting virtually with <Redacted - Regulation 11>, who will provide an update on Cromarty Hydrogen, which was shortlisted for UKG funding under the Hydrogen Business Model. The meeting will be facilitated in person by <Redacted - Regulation 11>, who is also arranging the following roundtable.

See Annex C for more details

<redacted -="" 11="" regulation=""></redacted>	<ul> <li><redacted -="" 11="" regulation=""></redacted></li> </ul>

<redacted -="" 11="" regulation=""></redacted>	<redacted -="" 11="" regulation=""></redacted>

Best,

<Redacted - Regulation 11>

<Redacted - Regulation 11> | Policy Adviser | Hydrogen Strategy Team | Energy Industries Division | The Scottish Government | Victoria Quay | Edinburgh | EH6 6QQ

From: <Redacted - Regulation 11> Sent: 11 April 2023 15:09 To: Minister for Energy 2023 <MinisterEnergy@gov.scot> Cc: Hogg A (Andrew) <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; McCaig C (Callum) <Callum.Mccaig@gov.scot> Subject: Briefing for Aberdeen Visit - Thursday 13 April - 09:30 - 12:30

Dear PO,

Please find attached a copy of the briefing for Ms Martin's visit to Aberdeen on Thursday 13 April.

To note, the Co Leader of Aberdeen City Council, Ian Yuill, will be present to greet the Minister at the ACHES site in the morning – I have added SpAds into this email chain for awareness.

Please let me know if the Minister has any further questions in advance of the visit.

Best,

<Redacted - Regulation 11>

<Redacted - Regulation 11> | Policy Adviser | Hydrogen Strategy Team | Energy Industries Division | The Scottish Government | Victoria Quay | Edinburgh | EH6 6QQ

From: <Redacted - Regulation 11> Sent: 06 April 2023 13:24 To: Minister for Energy 2023 <MinisterEnergy@gov.scot> Cc: Hogg A (Andrew) <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot<Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot>; <Redacted -Regulation 11> @gov.scot>; <Redacted - Regulation 11> @gov.scot> Subject: Agenda for Aberdeen Visit - Thursday 13 April - 09:30 - 12:30

Dear PO,

Please see below a summary of the agenda for Ms Martin's visit to Aberdeen on Thursday 13 April – full briefing will be provided on Tuesday 11 April as requested.

The visit has been designed to give the Minister hands on experience of long standing hydrogen infrastructure in Aberdeen, through a visit to ACHES hydrogen refuelling station, which has been in operation since 2017. This will be followed by a meeting with key stakeholders in Aberdeen City Council and bp, who are joint venture partners in the Aberdeen Hydrogen Hub. The AHH aims to be a scalable renewable hydrogen production, storage and distribution facility powered by renewable energy, and has been supported by Scottish Government in line with our commitment in the Hydrogen Action Plan to a regional hub approach to hydrogen production.

The Minister will then travel to Storegga's offices, where she will have a short oneon-one with <Redacted - Regulation 11>, Storegga's Hydrogen Asset Manager, to discuss the company's hydrogen ambitions, including its work in partnership with Scottish Power on the Cromarty Hydrogen Project, which was just shortlisted for UK Government funding. Storegga, a hydrogen and carbon capture development company, is one of the partners involved in Acorn Hydrogen and will be present at the following roundtable.

Ms Martin will then attend the Scottish Cluster roundtable discussion to build relationships and discuss next steps on the back of the UK Government 'Powering Up Britain' announcements, which included details of the next stage of the CCUS cluster sequencing process (Track 2).

The Scottish Cluster is a group of Industrial Emitters that will be linked to the Acorn Transport and Storage (T&S) system by pipeline to take advantage of Oil and Gas legacy infrastructure, with the aim of capturing and permanently storing 5 Mega Tonnes of CO2 emissions per year by 2030. These include:

- St Fergus CO2 extraction from St Fergus Gas at SAGE terminal, Acorn Carbon Capture and Acorn Hydrogen
- Peterhead Storegga Direct Air Capture, Peterhead CCS Power station
- Central Belt The Grangemouth Project, Fife Hydrogen Hub

Time	Item
09:30 -	Langdykes Rd, Cove Bay, Aberdeen AB12 3F
10:45	ACHES – Hydrogen Refuelling Site
	<b>09:30 – 10:05</b> – Welcomes, tour of facility, opportunity to refuel hydrogen car
	<b>Meeting with</b> – TBC <redacted -="" 11="" regulation=""> (Aberdeen City Council)</redacted>
	Aberdeen Hydrogen Hub (AHH)
	<b>10:05 – 10:45</b> – Stakeholder meeting with Aberdeen City Council and bp, joint venture partners in AHH. Updates on AHH work to date.
	<b>Meeting with</b> – TBC <redacted -="" 11="" regulation=""> (ACC) <redacted -="" 11="" regulation=""> (bp)</redacted></redacted>
10:45 – 11:10	Depart ACHES site and travel to Storegga offices
11:15 – 12:30	First Floor, Arnhall Business Park, Crown House, Prospect Rd, Westhill AB32 6FE
	Storegga
	<b>11:15 – 11:25</b> – Side room discussion with Storegga on their hydrogen plans and recent shortlisting for Hydrogen Production Business Model funding
	Meeting with – <redacted -="" 11="" regulation=""> (Storegga)</redacted>
	Scottish Cluster Roundtable
	<b>11:30 – 12:30</b> – Welcomes, introductions, opening remarks, background on the cluster, reflections on Track-2 announcements, next steps
	<b>Meeting with</b> – Steve Murphy/ <redacted -="" 11="" regulation="">, <redacted -="" 11="" regulation=""> (Storegga), <redacted -="" 11="" regulation="">, <redacted -="" 11="" regulation=""> (Shell), TBC (NSMP), <redacted -="" 11="" regulation=""> (NECCUS), TBC (SSE)</redacted></redacted></redacted></redacted></redacted>
12:30 – 12:45	Depart

Best,

<Redacted - Regulation 11>

<Redacted - Regulation 11> | Policy Adviser | Hydrogen Strategy Team | Energy Industries Division | The Scottish Government | Victoria Quay | Edinburgh | EH6 6QQ

# 13 April Briefing

# ENERGY MINISTER ABERDEEN HYDROGEN AND CCUS VISIT – BRIEFING PACK

ACK	
What	1. Hydrogen Stakeholder/Site Visit and Scottish Cluster Roundtable - Aberdeen
Where	ACHES (Aberdeen City Hydrogen Energy Station), Langdykes Rd, Cove Bay, Aberdeen AB12 3FU Storegga Offices First Floor, Arnhall Business Park, Crown House, Prospect Rd, Westhill AB32 6FE NB: Please note that ACHES appears on Google Maps as 'Aberdeen Hydrogen Centre' There will be parking available at both locations.
When	Date: Thursday 13 April 2023 Time: 09:30 – 12:30 09:30 – 10:05 – ACHES hydrogen refueling site 10:05 – 10:40 – Meeting with Aberdeen Hydrogen Hub 10:45 – 11:10 – Travel time 11:15 – 11:25 – Meeting with Storegga 11:30 – 12:30 – Scottish Cluster Roundtable
Key Message(s)	<ul> <li>Hydrogen</li> <li>As a government, we are convinced that hydrogen, alongside renewable electricity, will play an extremely important part in our energy system going forward.</li> <li>Our ambition is for Scotland to be a leading producer and exporter of hydrogen and hydrogen derivatives for use in the UK and in Europe, with the first hydrogen delivered from Scotland to mainland Europe in the mid-2020s.</li> <li>Our Hydrogen Action Plan sets out our ambitions to have at least 5 GW installed renewable and low-carbon hydrogen production capacity by 2030 and 25 GW by 2045.</li> </ul>
	As a government, we support the development of Carbon Capture Utilisation Storage (CCUS) as it is vital for a just transition to net zero by 2045. We are committed to supporting the development and deployment of the Scottish Cluster and will do all we can to urge the UK Government to progress the Track 2 sequencing process expediently.
Who	You will be touring ACHES, a hydrogen refueling station, followed by a discussion at the same location with Aberdeen Hydrogen Hub joint venture partners bp and Aberdeen City

	Council (ACC). You will be joined at the ACHES site ACC officials, as well as <redacted -="" 11:<br="" regulation="">see <b>Annex B</b> for further details. You will then travel to Storegga's offices, where you were short virtual meeting with <redacted -="" 11="" regulation="">, the Cromarty Hydrogen Project. An hour-long roundtable discussion will then take Storegga's offices with members of the Scottish including: • <redacted -="" 11="" regulation=""> (Storegga) • <redacted -="" 11="" regulation=""> (Shell) • <redacted -="" 11="" regulation=""> (Intersection 11&gt; (NSMP) • <redacted -="" 11="" regulation=""> (NSMP) • <redacted -="" 11="" regulation=""> (SSE) • <redacted -="" 11="" regulation=""> (INEOS) • <redacted -="" 11="" regulation=""> (INEOS) • <redacted -="" 11="" regulation=""> (INEOS) • <redacted -="" 11="" regulation=""> (National Gas Tran</redacted></redacted></redacted></redacted></redacted></redacted></redacted></redacted></redacted></redacted></redacted></redacted></redacted></redacted></redacted></redacted>	<ul> <li>from bp,</li> <li>vill have a to discuss</li> <li>place at Cluster,</li> </ul>
Why Supporting official (incl. mobile no.)	This visit will provide a hands-on exposure to the developing hydrogen economy in Scotland, as well as introductory meetings with stakeholders for two developing regional hydrogen hubs, supported through our Hydrogen Action Plan's regional approach. The roundtable discussion on Carbon Capture, Utilisation and Storage (CCUS) will provide the chance to meet and build relationships with members of the Scottish Cluster and discuss next steps on the back of the UK Government 'Powering Up Britain' announcements, which included details of the next stage of the CCUS cluster sequencing process (Track 2). Andy Hogg, Deputy Director for Energy Industries, < <b>Redacted</b> - <b>Regulation 11&gt;</b> < <b>Redacted - Regulation 11&gt;</b> , Head of Hydrogen Policy, < <b>Redacted - Regulation 11&gt;</b> , Head of Carbon Capture, Utilisation and Storage and Industrial Decarbonisation, < <b>Redacted - Regulation 11&gt;</b>	
Points to note	<redacted 10(5)(e)="" regulation=""> <redacted 10(5)(e)="" regulation=""></redacted></redacted>	
Annexes		Page(s)
Annex A Annex B Annex C Annex D Annex E Annex F	Summary & Agenda Hydrogen Meeting Summaries/Bios Hydrogen Stakeholder Backgrounds Hydrogen Top Lines Scottish Cluster Roundtable CCUS Top Lines	4-5 6-9 10-13 14-16 17-26 27-28

# Annex A – Summary & Agenda

# Summary

The visit has been designed to give you hands on experience of long-standing hydrogen infrastructure in Aberdeen, through a visit to ACHES hydrogen refuelling station, which has been in operation since 2017.

This will be followed by meetings with key hydrogen stakeholders, in line with our commitments to support a regional hub approach to hydrogen production:

- Aberdeen City Council (ACC) and bp, joint venture partners in the Aberdeen Hydrogen Hub to be updated on the hub work to date as well as wider hydrogen work within ACC; and
- Storegga to discuss the company's hydrogen ambitions, including its work in partnership with Scottish Power on the Cromarty Hydrogen Project.

You will then attend the Scottish Cluster roundtable discussion to build relationships and discuss next steps on the CCUS cluster sequencing process (Track 2). **Agenda** 

Time	Item
09:30 – 10:45	<ul> <li>Langdykes Rd, Cove Bay, Aberdeen AB12 3F</li> <li>ACHES – Hydrogen Refuelling Site</li> <li>09:30 – 10:05 – Welcomes, tour of facility, opportunity to refuel hydrogen car</li> <li>Meeting with – Aberdeen City Council officials, technical experts</li> <li>Aberdeen Hydrogen Hub (AHH)</li> <li>10:05 – 10:45 – Stakeholder meeting with Aberdeen City Council and bp, joint venture partners in AHH. Updates on AHH work to date.</li> <li>Meeting with – Aberdeen City Council officials, bp</li> </ul>
10:45 – 11:10	Depart ACHES site and travel to Storegga offices
11:15 – 12:30	<ul> <li>First Floor, Arnhall Business Park, Crown House, Prospect Rd, Westhill AB32 6FE</li> <li>Storegga</li> <li>11:15 – 11:25 – Side room discussion with Storegga on their hydrogen plans and recent shortlisting for Hydrogen Production Business Model funding Meeting with <redacted -="" 11="" regulation=""></redacted></li> <li>Scottish Cluster Roundtable</li> <li>11:30 – 12:30 – Welcomes, introductions, opening remarks, background on the cluster, reflections on Track-2 announcements, next steps</li> <li>Meeting with – <redacted -="" 11="" regulation=""> (Storegga), <redacted -<br="">Regulation 11&gt; (Storegga), <redacted -="" 11="" regulation=""> (Storegga), <redacted -="" 11="" regulation=""> (Storegga), <redacted -<br="">Regulation 11&gt; (Storegga), <redacted -="" 11="" regulation=""> (Storegga), <redacted -="" 11="" regulation=""> (Harbour Energy), <redacted -<br="">Regulation 11&gt; (NSMP), <redacted -="" 11="" regulation=""> (NECCUS),</redacted></redacted></redacted></redacted></redacted></redacted></redacted></redacted></redacted></li> </ul>

	<redacted -="" 11="" regulation=""> (SSE), <redacted -="" 11="" regulation=""> (INEOS), <redacted -="" 11="" regulation=""> (National Gas Transmission)</redacted></redacted></redacted>
12:30 – 12:45	Depart

#### Annex B – Hydrogen Meeting Summaries/Bios

#### Aberdeen & Hydrogen Background

Aberdeen is developing as one of Europe's most advanced hydrogen cities with hydrogen initiatives including: the deployment of over 90 hydrogen vehicles; a renewed fleet of 25 double-decker hydrogen buses; a range of light duty fuel cell vehicles for council fleets and a local car sharing club; trials of hydrogen-fuelled refuse trucks and road sweepers; the commissioning of a megawatt-scale stationary fuel cell as part of Aberdeen's recent new conference centre development; adaptation of facilities for hydrogen fleet maintenance and upskilling of fleet technicians; and two public hydrogen refuelling stations operating since 2015. The Scottish Government has invested over £15m from our Energy Transition Fund to take forward the development of the Aberdeen Hydrogen Hub. The development of the new South Harbour, the UK's largest marine infrastructure project, is currently underway and the adjacent Energy Transition Zone (ETZ) is set to become a catalyst for high-value manufacturing, R&D and hydrogen development. It is also in proximity to Acorn CCUS and Acorn Hydrogen project further up the coast at St Fergus. **Key Lines to Take** 

- Hydrogen has a role to play across Scotland, in our islands and rural places, communities, cities and industrial clusters. Strategies for production and application are expected to vary across these geographic regions and we are committed to realising the growth opportunities of hydrogen for our regions and local communities.
- We will therefore support the establishment of strategically important regional hubs of hydrogen activity across Scotland, recognising the differing resources, strengths, and focuses of each location.

#### Demonstration with ACHES – 09:30 – 10:05

You will be meeting with several Aberdeen City Council officials and bp on the ACHES site, including the Co-Leader of Aberdeen City Council, Councillor Ian Yuill, who wishes to welcome you to Aberdeen.

There will be guided tour of the hydrogen refueling station on site. You will have the opportunity to refuel a hydrogen car, which will form the basis of a photo-opp on the site.

Below is the full list of who will be present at the ACHES site:

#### Scottish Government

- Gillian Martin, Minister for Energy
- Andy Hogg, Deputy Director of Energy Industries
- <Redacted Regulation 11>, Head of Hydrogen Policy
- <Redacted Regulation 11>, Private Secretary

#### Norco Energy

• <Redacted - Regulation 11>, Contracts Support Engineer

#### Aberdeen City Council

- Councillor Ian Yuill, Co Leader of ACC, Convener Net Zero, Environment, and Transport Committee
- <Redacted Regulation 11>, Chief Officer City Development TBC
- <Redacted Regulation 11>, Service Manager City Development TBC

- <Redacted Regulation 11>, Senior Project Manager
- <Redacted Regulation 11>, Audiovisual Content Officer
- <Redacted Regulation 11> , Project Support Officer

#### bp

 <Redacted - Regulation 11>, Chief Executive Officer, bp Aberdeen Hydrogen Energy Limited

#### See Annex C for more details.

#### <u>Meeting with Aberdeen Hydrogen Hub Joint Venture Partners (Aberdeen City</u> <u>Council Officials and bp) – 10:05 – 10:45</u>

You will be meeting with officials from ACC <Redacted - Regulation 11> who will provide an overview of the joint venture and progress to date on the Aberdeen Hydrogen Hub as well as a short presentation on ACC's work in hydrogen more generally.

This meeting will take place at private room on the ACHES site.

<Redacted - Regulation 11>

See Annex C for more details

#### Key Biographies

Ian Yuill	<ul> <li>Aberdeen City Council <ul> <li>Co-Leader since May 2022</li> <li>Member since 1995</li> <li>Convener of ACC's Net Zero, Environment and Transport Committee and Vice Convener of the City Growth and Resources Committee.</li> <li>non-executive member of the NHS Grampian Board and a member of both the Aberdeen City Region Deal Joint Committee and NESTRANS</li> <li>Scottish Liberal Democrats Group Leader</li> </ul></li></ul>
<redacted -="" 11="" regulation=""></redacted>	<ul> <li>on Aberdeen City Council since 2013</li> <li><redacted -="" 11="" regulation=""></redacted></li> </ul>
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#### <u>Storegga One to One – 11:15 – 11:25</u>

You will be meeting virtually with <Redacted - Regulation 11>, who will provide an update on Cromarty Hydrogen, which was shortlisted for UKG funding under the Hydrogen Business Model. The meeting will be facilitated in person by <Redacted - Regulation 11>, who is also arranging the following roundtable. *See Annex C for more details* 

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#### Annex C – Hydrogen - Stakeholder Backgrounds <u>ACHES</u>

#### Background

Aberdeen City Hydrogen Energy Station (ACHES), consisting of four charging points, supplies hydrogen to an expanding fleet of cars, vans, roadsweepers and waste trucks in Aberdeen. It was built by Belgian company Hydrogenics and completed in November 2016.

It began operation in February 2017 and after six-months of being run by Hydrogenics, it is now managed by NORCO Group.

The facility produces 100-130kg per day from green tarrif electricity. It can also supply hydrogen to offtakers such as hospital construction sites and events companies, for hydrogen generators.

#### ABERDEEN HYDROGEN HUB

#### Background

Aberdeen City Council and BP have formed a joint venture to deliver the Aberdeen Hydrogen Hub. The Scottish Government Energy Transition Fund has contributed £15m of investment to the hub, which aims to be a scalable green hydrogen production, storage and distribution facility powered by renewable energy. The first phase of the hub development is to produce over 800 kilograms of green hydrogen per day and to build a hydrogen refuelling facility for buses and trucks that aims to be operational in 2024.

#### **ETF** investment

The ETF has a total of £15m invested in the AHH project. The £4.5m for the 10 buses was supplied in 2020 under a separate grant letter and procurement of the buses has completed. The rest of the funding £10.55m is currently in delivery as per below:

	Capital Packages – Phase 1	Funding	Programme Delivery Schedule
1	Fleet Renewal, Retrofitting, Maintenance and Training	£4.5m	Delivered by Q4 2024
3	Interim Hydrogen Refuelling	£2.0m	Delivered by Q2 2023
4	Refuelling Infrastructure Upgrade	£1.5m	Delivered by Q4 2023
5	New Refuelling Infrastructure	£2.5m	Delivered by Q4 2024
		£10.50m	

	Resource Packages – Phase 1	Funding	Programme Delivery Schedule
6	Rail Pilot Study	£0.05m	Delivered by Q4 2023
		£0.05m	

#### ETF is providing £15m in funding in total.

 $\pounds$ 4.5m has already been delivered and the  $\pounds$ 10.55m outstanding should be completely delivered by 24/25.

SG has supported ACC with funding (through £15m ETF funding). ACC added an additional £21m to this of their own funding.

The £15m from SG was used to do the following;

1. £4.5m to Purchase 10 hydrogen busses to add to their existing fleet of 15 buses and;

2. £10.5m to strengthen and add to the hydrogen production capability in Aberdeen –essentially to build 'The Aberdeen Hydrogen Hub'

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The Scottish Government has a contractual relationship with ACC for the expenditure of the grant which is part of the overall funding envelope (along with ACC's own funding).

But SG was not involved in the procurement activity that led to the JV or the Joint Venture itself, this is solely between bp and ACC.

#### SENSITIVITIES - TREAT AS CONFIDENTIAL <Redacted - Regulation 10(5)(e)>

#### Aberdeen Hydrogen Buses

- <Redacted Regulation 10(5)(e)>
- <Redacted Regulation 10(5)(e)>.
- These 10 buses became operational in April 2022 and were procured by ACC via £4.5 million from the Scottish Government's Energy Transition Fund.
- The business case for the Aberdeen Hydrogen Hub assumes a level of hydrogen demand that includes all twenty-five hydrogen buses running in Aberdeen. This fleet is central to the business case and serves as the anchor demand on which the rest of the hub can rely and build upon.
- <Redacted Regulation 10(5)(e)>
- To note, AHH joint venture is separate to the Aberdeen Hydrogen Buses, only ACC are involved with the buses.

#### Aberdeen City Council

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#### STOREGGA

#### Background

Storegga is a UK-based decarbonisation development company that develops earlystage carbon capture and storage and hydrogen projects in the UK and internationally. Storegga are part of the Scottish Cluster and involved in Acorn Hydrogen, as well as being partners with Scottish Power in developing the Cromarty Hydrogen Project.

#### Cromarty Hydrogen Project

Scottish Power and Storegga are developing the Cromarty Hydrogen Project as part of the North of Scotland Hydrogen Programme. <Redacted Regulation 10(5)(e)> of renewable hydrogen per day to meet local distillery demands and prove the technology at this scale. The project will initially supply renewable hydrogen to local distilleries operated by Diageo, Glenmorangie and Whyte & Mackay, and the supply chain supporting those distilleries, before expanding into a broader Cromarty regional solution for heat and transport needs whilst also enabling hydrogen export via the Port of Cromarty Firth.

#### HPBM/NZHF Shortlist

The Cromarty Hydrogen Project was one of five Scotland-based projects shortlisted for the next stage of the UK Government's first electrolytic allocation round, which included joint funding from the Hydrogen Production Business Model (HPBM) and the £240m Net Zero Hydrogen Fund (NZHF).

#### ANNEX D – Hydrogen Top Lines HYDROGEN ACTION PLAN

The final Hydrogen Action Plan, published on 14 December 2022, sets out the strategic approach and actions required to support the development of the hydrogen economy in Scotland over the course of this Parliament.

- Hydrogen will be a key part of the net zero journey. Complementary alongside electricity, hydrogen will play a role in industrial decarbonisation, transport, and heating our homes and buildings.
- The development of a domestic hydrogen sector and hydrogen production for export, supported by a strong supply chain, will play an important role in supporting a just transition to net zero by 2045 and presents significant long-term economic opportunities.
- 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 supported by a £100m capital funding programme, designed to accelerate and maximise the production of renewable hydrogen in Scotland.
- The first tranche of this £100m, the £10m Hydrogen Innovation Scheme, opened in June 2022 and will support the production, storage and integration of renewable hydrogen in our energy system. The remaining £90m Green Hydrogen Fund will be launched in 2023.
- This investment is aimed at driving Scotland's hydrogen production capability to meet an ambition of at least 5GW of installed renewable and low carbon hydrogen capacity by 2030 and 25GW by 2045.
- The unpredictable and uncertain outlook for global energy markets has only strengthened the case for accelerating our domestic hydrogen production. The Action Plan has been updated to reflect consultation feedback on the draft Action Plan and the energy developments throughout 2022.
- 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.
- The opportunity for Scotland within the developing global hydrogen market is significant. This Hydrogen Action Plans sets out the steps we will take to support Scotland's growing hydrogen economy and sends a strong signal to the market for future hydrogen development.
- In September 2022, we also published a Scottish Hydrogen Investment Proposition to promote inward investment in hydrogen and the export of green hydrogen.

#### HYDROGEN ASKS OF UK GOVERNMENT

Many of the levers required to support the emergence of a flourishing hydrogen economy in the devolved nations are reserved to the UK Government, and so we will continue to work closely with the UKG to ensure that our collective vision for the development of the hydrogen economy is aligned and the benefits are realised across all nations of the UK.

- The UK Government must take the action necessary at a UK-level to facilitate the smooth international trade of hydrogen, in line with Scottish export ambitions.
- The UK Government have committed to make decisions on amending regulations and legislation to support hydrogen blending in 2023 this decision will provide much needed clarity for gas networks and hydrogen producers and must not be allowed to slip.
- We urge the UK Government to accelerate decisions on the role of 100% hydrogen in the gas grid currently committed to be reached in 2026 to enable our ambition to maximise volumes of renewable hydrogen in our energy system as quickly as possible.
- We urge the UK Government to include the supporting infrastructure development for the offshore transportation of green hydrogen from Scotland's ports and harbours in energy infrastructure considerations.
- We will work with the UK Government to plan and secure the delivery of the substantial infrastructure, as well as new energy generation and conversion assets, that need to be developed before industrial fuel switching (to renewable hydrogen and/or to electrification) and CCUS can be deployed on a large scale.

#### RENEWABLE (GREEN) HYDROGEN – LOW CARBON (BLUE) HYDROGEN

## Both renewable and low carbon hydrogen will play an increasingly important role in our energy transition.

- Low carbon hydrogen coupled with CCS offers strong opportunities for a just transition of the oil and gas industry in line with the recommendations of the Just Transition Commission.
- Our priority is to get as much renewable hydrogen into the energy system as quickly as possible, while supporting the establishment of low carbon hydrogen production at scale in the 2020s, linked to carbon capture and storage.

#### **ENERGY TRANSITION**

Development of a domestic hydrogen sector will play an important role in supporting a just transition to Net Zero by 2045 and presents significant long-term economic opportunities.

• Our assessments indicate that the large-scale production and export of renewable hydrogen in Scotland could create and protect more than 300,000 jobs.

- Low carbon (blue) hydrogen coupled with CCS offers strong opportunities for transition of the oil and gas industry in line with the recommendations of the Just Transition Commission.
- Low carbon hydrogen could supply relatively low-cost hydrogen at scale and be used as a transition fuel in the medium-term, as developments like the Acorn Hydrogen project at St Fergus in North East Scotland become operational in the 2020s.
- Low carbon hydrogen can be an important technology, delivering emissions reduction and helping to establish a hydrogen economy alongside the growth of renewable hydrogen production.

#### Annex E - Scottish Cluster Roundtable

#### Scottish Cluster Round Table – 11:30 – 12:30

You will be meeting with members of the Scottish Cluster and NECCUS (North East CCUS, pronounced Nexus) in a roundtable format where you will hear from Storegga about the Scottish Cluster and discuss the impact of the UK Government's 'Powering Up Britain' announcements for CCUS and the Track 2 cluster process, what this means for the Scottish Cluster and the next steps.

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Steve Murphy	Storegga
	<ul> <li>Steve is Chief Commercial Officer at Storegga, with responsibility for strategic activity across the Group. He has 35 years' broad energy industry experience covering business start- ups, financial stewardship and commercial management of energy projects around the world. Previous experience includes roles with Chevron, ENI, Baker Hughes, Helix Energy Solutions &amp; Petrofac.</li> <li>Established CO2DeepStore in 2007 – the UKs first company focussed on developing carbon capture and storage as a business.</li> <li>Steve is a founding Director of Pale Blue Dot Energy – the pioneering Scottish CCS business leading the Acorn CCS project and Scottish Cluster. Responsible for growing the business from 4 people in 2013 to over 95 people today.</li> <li>A Founding Director of Storegga (owner of Pale Blue Dot Energy) and instrumental in securing inward investment from multiple blue-chip companies as shareholders.</li> <li>Non-Executive Director with Peterhead Port Authority since 2017</li> </ul>
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11:30 Welcome/Introductions

11:35 Round-table discussion covering:

- Opening remarks (Minister for Energy)
- Background on the Scottish Cluster (Storegga)
- Reflections Track-2 announcements (all)
- Next steps for the Scottish Cluster and securing Track-2 (all)

12:30 Meeting close

#### **Opening remarks (led by Minister for Energy)**

- The Scottish Government supports the development of Carbon Capture Utilisation Storage (CCUS) and is committed to supporting the development and deployment of the Scottish Cluster.
- CCUS is "mission critical" to achieve our net zero goals and I will do everything I can to support you, unfortunately Scotland doesn't have all the levers required but I will be urging UK Government to provide the clarity you need.
- I am pleased that Acorn is one of the 2 projects that are "best able" to meet Track 2 eligibility, which is confirmation of the strength of the original proposition.
- Congratulations to everyone involved in the bid if only the quality of it had been fully appreciated about 18 months ago.
- Despite that welcome recognition, we are bitterly disappointed that there is still no timetabled solution for Track-2 from UK Government. Stating that they "intend to provide an update in the summer" is not acceptable.
- I want to reassure you that Scottish Government fully supports the development and deployment of CCUS and we stand ready to provide up to £80 million investment from our Emerging Energy Technologies Fund.

#### Background on Scottish Cluster (led by Storegga)

[Info to be provided]

#### Questions you may wish to ask:

• I'm acutely aware that this has been going on for a long time and it will have tested your resilience and patience. What impact do the recent announcements have on your organisation and on the collective?

• What are the key risks to being successful with Track-2 and how can we work together to help mitigate those?

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- What can we do to expand the cluster to increase the emitter base in order to capture and store more CO2?
- I'm also interested in unlocking the storage potential of Scotland, how do you think we are positioned compared with other UK clusters and internationally, and what more do we need to do to convert geological advantage into competitive advantage.

#### **CCUS BACKGROUND NOTES**

- CCUS is vital for a just transition to net zero. Advice from 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. There is no technological alternative currently available for key strategic and economically significant industries.
- As set out in the Bute House Agreement, the Scottish Government agrees that any strategy for deployment of CCUS must enable decarbonisation at pace and cannot be used to justify unsustainable levels of fossil fuel extraction or impede Scotland's just transition to net zero.
- Scottish Government economic scenario analysis shows CCUS would have a positive impact on the Scottish economy. In 2045 Scottish GDP could be 1.3-2.3% (£3.8Bn-£6.7Bn) higher in scenarios with CCUS, than without.
- Economic modelling by the Scottish Cluster estimates that by deploying CCUS, hydrogen and direct air capture technologies in Scotland, could support an average of 15,100 jobs between 2022-2050, with a peak of 20,600 jobs in 2031.

#### The Scottish Cluster

- The Scottish Cluster is a group of Industrial Emitters which will be linked to the Acorn Transport and Storage (T&S) system by pipeline to take advantage of Oil and Gas legacy infrastructure, with the aim of capturing and permanently storing 5 Mega Tonnes of CO-<sub>2</sub>- emissions per year by 2030. These include:
  - St Fergus CO<sub>2</sub> extraction from St Fergus Gas at SAGE terminal, Acorn Carbon Capture and Acorn Hydrogen
  - Peterhead Storegga Direct Air Capture, Peterhead CCS Power station (SSE)
  - o Central Belt The Grangemouth Project, Fife Hydrogen Hub

- In October 2021, UKG announced the Scottish Cluster (led by the Acorn Project at St Fergus) was unsuccessful in the Track-1 competition, however it was confirmed as a Track-1 "reserve".
- In March 2023 Budget, the UK Government announced £20 billion funding for CCUS projects (Track 1 projects in East and North West England, and North Wales), however none of this money was allocated to Scotland.
- Also in March 2023, the UKG published "Powering Up Britain" which also confirmed the Track 2 sequencing process to establish 2 further clusters by 2030, the UK government considers Acorn and Viking T&S systems as "best placed" to meet Track 2 eligibility (subject to due diligence and value for money assessments).
- The UK Government, whilst confirming that Acorn meets the Track 2 criteria, have, inexplicably decided to open up the Track 2 process by inviting other clusters to submit an expression of interest (EOI). Should any EOI be received by the end of April, that will necessitate a selection and assessment stage (competitive procurement). The expectation is that other clusters will submit an EOI.

#### NECCUS (pronounced NEXUS)

- North East CCUS (NECCUS) is an industry-led alliance drawn from industry, academia, membership organisations and private sector bodies to promote CCUS in Scotland.
- The group emerged out of a need to create a formal entity to coordinate and promote CCUS in Scotland at a Scottish, UK and European level. Other CCUS projects in the UK already benefit from similar entities.
- The objective of NECCUS is to articulate and promote the CCUS offering provided in Scotland; to attract funding for CCUS in Scotland; and to secure the first CCUS project in the UK to be in Scotland.
- The Scottish Government provided £300K start-up funding and support to NECCUS over the financial years 2019/20 and 2020/21. A further £110,000 in de minimis funding is being provided for the 2022/23 financial year.

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#### Scotland's advantages

• Scotland remains among the best placed nations in Europe to deploy CCUS due to our unrivalled access to vast CO<sub>2</sub> storage potential in the North Sea

and opportunities to repurpose existing oil and gas infrastructure for CO<sub>2</sub> transport and storage.

- Scotland's significant CO<sub>2</sub> storage potential and the presence of the Scottish Cluster provides an economic opportunity for Scotland to be at the centre of a European hub for the importation and storage, via shipping, of CO<sub>2</sub> from Europe.
- The Carbon Capture and Storage Association (CCSA) predicts the global CCUS supply chain in 2050 will be £181 billion per year for industry CCUS and £54 billion per year CO<sub>2</sub> transport and storage; the UK Government predicts CCUS will *"deliver £4-5 billion in Gross Value Added by 2050 through exports"*. This offers Scottish businesses a huge international market to be a part of in the future and will deliver significant economic opportunities

#### Annex F – CCUS Top Lines

# The Scottish Government supports Carbon Capture Utilisation and Storage – as a common whole-system decarbonisation infrastructure with the flexibility to adapt over time to play a central role across the decarbonisation strategies of key sectors such as heat, industry and power.

- CCUS can play a pivotal role in achieving a just transition for our workforces, capitalising on existing skills and expertise to create many good, green jobs in the coming years.
- Scotland can be considered among the best placed nations in Europe to deploy CCS, with our unrivalled access to a vast CO2 storage potential of up to 46 gigatonnes and our opportunities to repurpose existing oil and gas infrastructure. This presents us with an economic opportunity in future to be at the centre of a European hub for the importation and storage of CO2 from Europe.

## While we welcome the UK Government's confirmation that the Scottish Cluster is eligible for Track 2, there is still no certainty around when funding will be awarded.

- The Scottish Cluster is absolutely vital for a just transition to net zero not just in Scotland, but across the UK.
- The UK Government's decision not to give the Scottish Cluster clear and definitive Track-1 status in its CCUS cluster sequencing process is illogical.
- We do not hold all the necessary legislative and regulatory levers needed to support the Scottish Cluster, as they are not devolved. We continue to call on the UK Government to work with us, and provide the certainty and support required to accelerate the Scottish Cluster project.
- In March 2023 Budget, the UK Government announced £20 billion funding for CCUS projects (Track 1 projects in East and North West England, and North Wales), however none of this money was allocated to Scotland.
- Also in March 2023, the UKG published "Powering Up Britain" which also confirmed the Track 2 sequencing process to establish 2 further clusters by 2030, the UK government considers Acorn and Viking T&S systems as "best placed" to meet Track 2 eligibility (subject to due diligence and value for money assessments).
- The UK Government, whilst confirming that Acorn meets the Track 2 criteria, have, inexplicably decided to open up the Track 2 process by inviting other clusters to submit an expression of interest (EOI). Should any EOI be received by the end of April, that will necessitate a selection and assessment stage (competitive procurement). The expectation is that other clusters will submit an EOI.

## We are committed to supporting the continued growth and development of the Scottish Cluster to ensure that Scotland reaches its net zero goals by 2045.

- We have provided funding and policy support since 2017 to the Scottish Cluster's Acorn CCS project at St. Fergus through its feasibility and development phases.
- We have offered on several occasions to assist the UK Government with the affordability of delivering the Scottish Cluster. This includes our offer to His Majesty's Treasury to deploy £80m funding from our EETF. We stand ready to deliver on this commitment.

• Due to delays with UK Government announcing the Scottish Cluster, we have reprofiled our offer of financial support into subsequent years.

### Advice from the Climate Change Committee describes CCUS as a *"necessity, not an option"* to achieve net-zero emissions.

- All credible evidence advice and analysis has demonstrated that CCUS is critical for meeting statutory emissions targets not just in Scotland, but across the UK.
- Our ambition to reach net zero by 2045 is based on the Climate Change Committee's advice, which noted Scotland can achieve this in part due to "the excellent opportunities to remove CO2 from the atmosphere through carbon capture and storage in Scotland".
- Without the swift deployment of CCUS in Scotland our pathway to net-zero emissions, set out in the Climate Change Act, becomes extremely challenging.
- Scotland's commitment to a just transition includes supporting industries whose only realistic route to decarbonise is via CCUS.
- The Aug 2021 agreement between the Scottish Government and the Scottish Green Party recognises that *"CCUS technologies will play a part in a just transition"*.
- The agreement also states that "(t)he Scottish Government remains supportive of these technologies as part of the energy transition and in particular it remains committed to supporting the delivery of the Acorn project".

## The Global CCS Institute's (GCCSI) latest Global Status Report 2022 identified a total of 30 successful CCS projects in operation, a further 11 under construction and 153 in development.

- The oldest operational project, Sleipner in Norway, has operated for over 25 years and is estimated to have reduced emissions by 1MT/year over its lifespan.
- There are also many more CCS facilities already operating on a pilot or demonstrator basis, or that are at advanced stages of development.
- CCS projects, like any new industrial scale technologies, may experience challenges in construction and operation. This is normal and to be anticipated, will be project specific, often relating to engineering, and expected to decrease as more projects are built and knowledge and experience shared. The global experience so far has demonstrated that such challenges can be managed. This is not a reason not to deploy CCS, nor to consider the technology 'not proven'.
- A recent study shows that the probability of CO2 leaks from a regional CCS industry is low. If they do occur, the spatial scale of impact will be small, and the potential environmental impacts will be minimal.

#### 13 April meeting note etc.

#### Roundtable with Minister for Energy and Scottish Cluster 13 April 2023 Attendees

Scottish Cluster

- <Redacted Regulation 11><Redacted Regulation 11>and <Redacted Regulation 11>- Storegga
- <Redacted Regulation 11>and <Redacted Regulation 11>- Shell

- <Redacted Regulation 11>- Harbour Energy
- <Redacted Regulation 11>- North Sea Midstream Partners
- <Redacted Regulation 11>– Ineos.
- <Redacted Regulation 11>- National Gas Transmissions
- <Redacted Regulation 11> NECCUS
- <Redacted Regulation 11>- SSE

Scottish Government

- Minister for Energy
- Andy Hogg (AH) Deputy Director for Energy Industries
- <Redacted Regulation 11>- CCUS and Industrial Decarbonisation team
- <Redacted Regulation 11>– Hydrogen team
- <Redacted Regulation 11>Private Office

#### Welcome and introductions

**Minister** – thanks for agreeing to meet at short notice. Reiterated Scottish Government support for the Scottish Cluster and that Minister was committed to turning Track-2 into a reality. Pointed out Scottish Government does not have the powers required to award Track-2 but will work with UKG to do everything possible to influence the process and timeline.

#### Minute

#### Update from Scottish Cluster

<Redacted - Regulation 11>– update on Scottish Cluster including the origins and thanked Scottish Government for their continued support. He then invited attendees to provide a short update.

<Redacted - Regulation 11>– have made good progress on the fundamentals and highlighted <Redacted - Regulation 10(5)(e)> Claimed there had been a focus on costs for Track-2.

**Minister –** asked about feedback from UKG on Track-1 bid.

<Redacted - Regulation 11>- confirmed the <Redacted - Regulation 10(5)(e)>

Minister - where do you see Scottish Government and me helping you?

<Redacted - Regulation 11>– using soft power with UKG. Also, effectively utilising the £80m from EEFT with a focus on bringing more emitters into the Scottish Cluster 'family'.

Action: (<Redacted - Regulation 11>) set up follow-up discussion with Scottish Cluster to explore options to utilise the EEFT to accelerate and scale the development of CCUS

<Redacted - Regulation 11> - <Redacted - Regulation 10(5)(e)>

**Minister** – <Redacted - Regulation 10(5)(e)>

<Redacted - Regulation 11> - <Redacted - Regulation 10(5)(e)>

Action (<Redacted - Regulation 11>) - <Redacted - Regulation 10(5)(e)>

<Redacted - Regulation 11>- <Redacted - Regulation 10(5)(e)> Action (<Redacted - Regulation 11>): <Redacted - Regulation 10(5)(e)>

<Redacted - Regulation 11>– highlighted that Peterhead is on 3<sup>rd</sup> iteration of proposition which is currently in the planning phase and they are just waiting on the green light on Track-2. Emphasised that Peterhead, as a dispatchable power station, is central to the energy transition.

**Minister** – outlined her understanding of the skills challenges that must be addressed to unlock the jobs and economic potential of CCUS.

<Redacted - Regulation 11>– confirmed that the Shell, as lead technical partner, are currently undertaking a renewed economic assessment that will be shared with Scottish Government.

Action (<Redacted - Regulation 11>) to work with CCUS economic analysts in Office of Chief Economic Adviser to review the economic assessment and provide advice to Minister.

<Redacted - Regulation 11>– Outlined the recent publication of Scottish Net Zero Roadmap (SNZR) with provides a roadmap to net zero by 2045 for 28 industrial emitters who collectively account for 75% of Scotland's industrial CO2 emissions.

Action (<Redacted - Regulation 11>) – to arrange meeting between Minister and NECCUS for a more substantive discussion on SNZR

<Redacted - Regulation 11>- outlined that Scottish Cluster will soon be launching their 'We're Ready' campaign which will promote their Track-2 proposition. This will build on their previous 'Support the Scottish Cluster' campaign with a renewed focus on skills, just transition and enhanced engagement with unions.

Action (<Redacted - Regulation 11>) – to liaise with Scottish Cluster and Scottish Government Comms to ensure all relevant channels are utilised to support and amplify 'We're Ready'.

**Minister** – thanked everyone for their attendance and the significant amount of work they continue to do to further enhance the Scottish Cluster. Reinforced that Minister is absolutely committed, as are her officials, to working with the cluster to deliver Track-2 and to developing Scotland as a centre of excellence for CCUS.

#### Actions;

- 1. <Redacted Regulation 10(5)(e)>. (<Redacted Regulation 11>)
- 2. <Redacted Regulation 10(5)(e)> (<Redacted Regulation 11>)
- **3.** Work with CCUS economic analysts in Office of Chief Economic Adviser to review the economic assessment and provide advice to Minister. (<Redacted Regulation 11>)

- **4.** Set up follow-up discussion with Scottish Cluster to explore options to utilise the EEFT to accelerate and scale the development of CCUS (<Redacted Regulation 11>)
- 5. Arrange meeting between Minister and NECCUS for a more substantive discussion on SNZR (<Redacted Regulation 11>)
- 6. Liaise with Scottish Cluster and Scottish Government Comms to ensure all relevant channels are utilised to support and amplify 'We're Ready'. (<Redacted Regulation 11>)

#### 26 April briefing

### **MINISTERIAL ENGAGEMENT BRIEFING:** GILLIAN MARTIN, MINISTER FOR ENERGY

Engagement title	Meeting with <redacted -="" 11="" regulation="">– (CEO), NECCUS</redacted>	
Engagement timings	16:00 – 16:30 hrs on 26 April 2023	
Organisation	North East CCUS (NECCUS)	
Venue and full address	Virtual meeting on MS Teams Postcode n/a	
MiCase reference if any	N/A	
Background/purpose (including invitation history)	<redacted -="" 11="" regulation="">– was at the Scottish Cluster Roundtable in Aberdeen on 13 April 2023 and he provided a brief introduction to you on Scotland's Net Zero Roadmap (SNZR). This meeting is an opportunity for a more substantive discussion on SNZR and NECCUS' role in supporting the development of CCUS.</redacted>	
Relevance to core script	<ul> <li>Scottish Government is committed to working with industry to accelerate decarbonisation and create energy transition opportunities at major industrial sites.</li> <li>Central to this objective is the world-class Scottish Cluster carbon capture project, and infrastructure to enable switching to lower-carbon fuels such as electrification or green hydrogen.</li> </ul>	
	Supporting the expansion of the Scottish Cluster for deeper decarbonisation across the Central Belt will provide a sustainable and competitive advantage to Scotland's businesses in a carbon constrained world.	

Supplementary information/sensitivities	SG currently provide grant funding to NECCUS. They have submitted a fresh proposal for 2023/24 that CCUS policy team are currently considering. NECCUS intend to move to a fully funded membership model in 2024/25. Ronnie is stepping down in June and the Board have still to appoint a successor.
Official support and mobile number	<redacted -="" 11="" regulation="">, Head of Carbon Capture, Utilisation and Storage and Industrial Decarbonisation, <redacted -="" 11="" regulation=""> <redacted -="" 11="" regulation="">, CCUS Policy, <redacted -="" 11="" regulation=""></redacted></redacted></redacted></redacted>
Briefing content Annex A – Suggested Points to Mal Annex B – Background – on points Annex C – Biography of <redacted Annex D – Agenda</redacted 	in Annex A

Annex E – CCUS and Industrial Decarbonisation Top Lines

#### ANNEX A

#### SUGGESTED POINTS TO MAKE

- Thanks for attending the Scottish Cluster roundtable in Aberdeen, it was good to get a brief outline of the work of NECCUS and I'm interested in learning more.
- I hear you are moving on, so on behalf of Scottish Government I want to thank you for your leadership of NECCUS and for everything you have done to support CCUS and Scotland's industry.
- Whilst you're still in post, I'm keen to take advantage of your expertise and there are a few things I'd like to get your views on:
  - 1. Supporting the further development and deployment of CCUS in Scotland.
  - 2. Scottish Net Zero Roadmap (SNZR) what's next for it?
  - 3. Role of NECCUS in 2023/24 and beyond.

Suggested questions to prompt discussions on the above

- 1. I was interested in your comments about bringing more emitters, particularly dispersed sites, into the Scottish Cluster "family" what needs to happen to drive that?
- 2. I understand SNZR was funded by UKRI as part of a UK-wide programme to decarbonise industry what are UKRI or UKG plans to convert a map into a journey for the 28 emitters who took part?
- 3. Given that the majority of legislative powers and funding support for industrial decarbonisation is reserved to Westminster, what do UKG need to do and how can I and Scottish Government best support this?
- 4. Our Climate Change Plan shows that industry needs to do much more to decarbonise how can SNZR accelerate and scale that?
- 5. It's vital that we continue building the case for CCUS in Scotland and further afield, and that we capitalise on our competitive advantage (skills and expertise) and geological advantage (over 50% of UK storage) how can NECCUS help with that?
- 6. Skills are a key challenge. What are your members saying and given that skills are the responsibility of the Scottish Government, what do we need to do to ensure we the right skills in the right place at the right time?

#### BACKGROUND – TAILORED TO ANNEX A

#### **NECCUS (North East CCUS)**

- Launched in November 2019, North East CCUS (NECCUS) is an industry-led alliance drawn from industry, academia, members and private sector bodies to promote CCUS in Scotland.
- The objective of NECCUS is to articulate and promote the CCUS offering provided in Scotland; to attract funding for CCUS in Scotland; and to secure the first CCUS project in the UK to be in Scotland.
- The Scottish Government provided £300K start-up funding and support to NECCUS over the financial years 2019/20 and 2020/21. A further £110,000 in de minimis funding is being provided for the 2022/23 financial year.

#### Scottish Net Zero Roadmap:

The SNZR roadmap sets out how the Scottish cluster of the largest industrial emitters in Scotland can move towards net zero by 2045. It is based on:

- Understanding the energy use and emissions of these emitters.
- Exploring how these companies can reduce their emissions to net zero under several different decarbonisation scenarios.
- Identifying the optimum process technologies to use and infrastructure to develop to enable each company and, thus, industry to achieve net zero operations.
- The roadmap supports the decarbonisation needs of wider industry as it identifies the key solutions for a range of different types of businesses, reduces the business risk for these companies and defines the common infrastructure required that all companies will be able to access.
- The estimated <Redacted Regulation 10(5)(e)> to deliver a viable transition pathway for the SNZR cluster with many interdependencies between investment scenarios.

#### Key actions in SNZR report identified to deliver net zero for the cluster are:

- Establish ownership and leadership of the roadmap implementation.
- Develop and operate a co-ordination mechanism to ensure that all stakeholder groups are engaged and committed to delivery of the roadmap.
- Support Acorn activities in the North East to establish an initial focal point for the roadmap.
- Investment in CO2 pipeline infrastructure to support the cluster or, if this does not proceed.

- Investment in CO2 shipping hubs and local transport options.
- Investment in hydrogen manufacturing, transport and supply, and linking new and developing hydrogen manufacturing capacity with industrial users.
- Investment in DACCS capacity of at least 500,000 tonnes per annum capacity.

#### Specific short-term recommendations are:

- Leadership and ownership of the roadmap is developed and established. It is noted that NECCUS is already in discussions with the Scottish Government regarding this recommendation.
- Support is committed to drive forward the Acorn project as the initial focal point for net zero cluster and infrastructure development.
- Development of required infrastructure, as identified in this roadmap, is initiated.
- There is ongoing, regular engagement with key stakeholders (industrial emitters, infrastructure developers and owners, government and regulatory bodies) to ensure that there is a cohesive way forward and that early actions are implemented.
- The organisations responsible for each action commit to pursue actions in a timely manner and update other key stakeholders on key decisions and progress.

#### ANNEX C

<redacted -="" 11="" regulation="">-</redacted>	• <redacted -="" 11="" regulation=""></redacted>
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#### ANNEX D

#### <u>AGENDA</u>

- 16.00 Welcome Minister
- 16.05 Introduction to NECCUS and discussion on: - Supporting development of CCUS
  - SNZR and supporting Industrial Decarbonisation
  - What next for NECCUS
- 16.25 Round-up and next steps Minister
- 16.30 Close

#### CCUS - TOP LINES

#### ANNEX E

The Scottish Government supports Carbon Capture Utilisation and Storage – as a common whole-system decarbonisation infrastructure with the flexibility to adapt over time to play a central role across the decarbonisation strategies of key sectors such as heat, industry and power.

- CCUS can play a pivotal role in achieving a just transition for our workforces, capitalising on existing skills and expertise to create many good, green jobs in the coming years.
- Scotland can be considered among the best placed nations in Europe to deploy CCS, with our unrivalled access to a vast CO2 storage potential of up to 46 gigatonnes and our opportunities to repurpose existing oil and gas infrastructure. This presents us with an economic opportunity in future to be at the centre of a European hub for the importation and storage of CO2 from Europe.

## While we welcome the UK Government's confirmation that the Scottish Cluster is eligible for Track 2, there is still no certainty around when funding will be awarded.

- The Scottish Cluster is absolutely vital for a just transition to net zero not just in Scotland, but across the UK.
- The UK Government, whilst confirming that Acorn meets the Track 2 criteria, have, inexplicably decided to open up the Track 2 process by inviting other clusters to submit an expression of interest (EOI). Should any EOI be received by the end of April, that will necessitate a selection and assessment stage (competitive procurement). The expectation is that other clusters will submit an EOI.

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- Due to delays with UK Government announcing the Scottish Cluster, we have reprofiled our offer of financial support into subsequent years.

#### **INDUSTRIAL DECARBONISATION – TOP LINES**

- Scotland is committed to a just transition to net-zero by 2045 and decarbonisation of industry is 'mission critical' within this.
- Industry has much to gain from the transition to a low-carbon economy. Decarbonising energy-intensive (EII) manufacturing in a just and fair way, that leaves no one behind, will help industrial sectors and supply chains to grow and compete in the international economy.
- Industrial decarbonisation must be a collective endeavour between government, industry and academia. Therefore we are strengthening engagement with research networks to build evidence-based policy that will include all means to decarbonise process energy and heat.
- The Scottish Government will do everything that we can to step up action that builds on current incentives to invest. However, many policy, fiscal or regulatory levers lie with UK Government, therefore our work with them includes:
  - How the Emissions Trading Scheme (UK ETS) will adapt to stimulate investment;
  - Securing deep decarbonisation infrastructure such as the Acorn project for CCS, and;
  - Progressing investment in technology and infrastructure to enable switching to lower-carbon fuels such as via electrification or green hydrogen.