

BRIEFING FOR THE FIRST MINISTER

Introductory Meeting with German Ambassador to the UK Miguel Berger

02 December 2022, 9:15am, Bute House

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| Key messages | <ul style="list-style-type: none">• In coming decades, Scotland's huge renewable resources mean that we are well placed to become a major exporter of green hydrogen to Europe.• Scotland's potential to export large amounts of green hydrogen mean that we can serve the decarbonisation requirements of German industry. |
| What | An introductory meeting with German Ambassador Miguel Berger. |
| Why | To meet the German Ambassador for the first time to discuss Scotland and Germany's shared priorities. |
| Who | <p>Miguel Berger, German Ambassador to the UK since May 2022. After studying economics at the University of Mannheim, Berger joined the German diplomatic service in 1988. Between 2002-4, he headed the German representative office in the Palestinian Territories. In Berlin, he has worked as head of the Parliamentary and Cabinet Council, Commissioner for Global Issues, External Energy and Climate Policy and Regional Commissioner for the Near and Middle East, as well as the Maghreb. From May 2020 until Jan 2022, Berger was State Secretary at the German MfA. With this posting, he effectively switched roles with the previous Ambassador to Germany, Andreas Michaelis following the formation of a new coalition Government in Germany in December 2021. [redacted – s.32(1)(a) International relations]</p>  |
| Where | Bute House |
| When | 09:15 – 10:00, Friday 2 December |
| Likely themes | <ol style="list-style-type: none">1. Scotland's Hydrogen/Offshore Wind generation potential2. Higher Education and Research cooperation with Germany3. Student mobility and visas for interns4. Scotland's relationships with various German Länder5. German language learning in Scotland6. COP27/Loss and Damage |
| Media | TBC Tweet and picture. FM comms developing |
| Supporting official | Frank Strang, Head of European Relations, [redacted] |
| Attached documents | Annex A – Agenda and Summary Annex B – Discussion Topics Annex C – Background Briefing Annex D – Report of Angus Robertson meeting with Miguel Berger |

Agenda and Summary

Ambassador Berger's Visit Programme

- [redacted – s.32(1)(a) International relations]

Summary

Scotland has the potential to produce enough green hydrogen serve the decarbonisation needs of German industry, *if* transported by pipeline (*not economical to convert to ammonia for transportation and reconvert back for most German industrial uses. Ammonia could be used for transportation in the short term for use in the chemical and fertiliser industries*).

This meeting offers an opportunity for an open conversation with the German Ambassador about the scale of Scotland's hydrogen potential, and what needs to happen at the national political level on both sides in order to unlock the investment required to create the necessary infrastructure for the large-scale export of green hydrogen to Germany.

Desired outcomes

[redacted – s.32(1)(a) International relations]

Recent engagements

- 1 Dec – Ambassador Berger attended a morning trade and energy roundtable with Mr Matheson, DITI, DECC, SDI, Glasgow Chambers of Commerce and other stakeholders [see p.7]
- 1 Dec – Ambassador Berger attended a dinner with Ms Slater
- 17 November – Mr Robertson met with Ambassador Berger in London

Upcoming engagement

2-5 Dec – Mr Robertson visit to Berlin for St Andrew's Day reception, launching the Scottish folk festival (Showcase Scotland).

DISCUSSION TOPICS

1. SCOTLAND'S HYDROGEN/OFFSHORE WIND GENERATION POTENTIAL

- In contrast to rUK, Scotland is aligned with Germany on the aim of phasing out nuclear energy and our common strategic focus on green hydrogen (rather than blue) to achieve our net zero aims.
- Key message: [redacted – s.32(1)(a) International relations]

Scotland's Offer:

- Scotland has the resources, people & ambition to be a world leader in hydrogen production.
- Scotland is blessed with a high renewable energy potential that significantly exceeds the demand for domestic consumption.
- Our huge potential for renewable energy generation, with a **potential pipeline of 16.7GW of renewable generation**, perfectly complements our ambitions to produce industrial-scale quantities of renewable hydrogen for domestic use and export.
- We are building our hydrogen production capability to meet an ambition of **5GW of renewable and low-carbon hydrogen by 2030 and 25GW by 2045**.
- This will give Scotland the potential to deliver up to 126TWh of green hydrogen per year by 2045, with up to 94TWh of hydrogen for export to Europe and the rest of the UK. This translates into a potential to export approximately **2.5 million tonnes of hydrogen annually by 2045**. Our export plan is under development.
- It means that in coming decades, Scotland will become a major exporter of green hydrogen to Europe.
- A trusted and reliable trading partner, Scotland can play a central role in securing Europe's future energy supply and climate neutrality. Just 750 kilometres from the German coast, Scotland is well placed in terms of proximity and infrastructure connectivity to key hydrogen import locations on the northern European mainland such as Germany, the Netherlands and Belgium. This additionally gives us the potential to position ourselves as a hub linking the North Sea region and Ireland.
- Scotland has industry experience and expertise through a strong track record for advancing hydrogen technologies and demonstrating hydrogen's production and use across a wide-ranging number of applications – 'Learning by Doing'.
- We have a long tradition of innovation in the energy sector, with world-class research institutions, testing facilities and businesses with expertise across the hydrogen value chain. We also have 40 years' experience as an energy exporter.
- Our legacy oil and gas infrastructure, combined with our experienced energy and oil and gas workforce and a supply chain focused on energy transition, are critical to establishing a prominent role for Scotland in the emerging global hydrogen market.
- Several German delegations have visited Scotland in 2022 - including the BMBF Hydrogen Commissioner and delegations from North Rhine-Westphalia, Bavaria, Lower Saxony, Saxony and Baden-Württemberg. All have been convinced of Scotland's potential to supply the hydrogen needs of German industry.
- Scotland also has hydrogen-related agreements with Hamburg, North Rhine-Westphalia, Bavaria and Baden-Württemberg, and a close working relationship with Lower Saxony.

- We are delighted that companies such as Siemens Energy, Bay.Wa-Re and EN-BW were successful in the Scot-Wind leasing round and that Uniper [now 98% owned by the German government] in engaged is the Flotta Hydrogen Hub project off Orkney. Initiatives such as the one in Flotta could deliver some highly significant flagship projects that could benefit the hydrogen ambitions of both Scotland and Germany and we're keen to encourage these sorts of partnerships between businesses in Scotland and Germany.
- The Flotta Hydrogen Hub is the largest proposed project in Scotland to date, beginning at 500MW scale moving to 1GW in its final iteration. The Flotta Hydrogen Hub partners are all major energy companies and include: Repsol Sinopec (owners of the Flotta terminal), Uniper, the Green Investment Group (previously the McQuarrie group), TotalEnergies and EMEC.
- The Scottish Government's strategic goal is to make Scotland a leading nation in the production of green hydrogen. [redacted – s.32(1)(a) International relations]

Scotland's Ask

- We need to work collaboratively to develop the infrastructure, regulatory frameworks and global supply chains that will be needed to underpin the global hydrogen market.
- Action is needed now to capture the economic opportunity presented by developing a strong hydrogen economy and to secure Scotland's place as an exporter within the growing global market.
- Scotland is keen to work in partnership with other North Sea nations as part of a green hydrogen alliance to facilitate the most cost-effective, sustainable and secure supply of green hydrogen to meet Europe's energy needs.
- We already have substantial partnerships in Germany and are keen to engage at the appropriate levels to help develop the transnational value chains needed to produce and export large-scale green hydrogen from Scottish ports into northern Europe.
- Whilst we are open to all forms of transportation – ammonia, methanol, liquid hydrogen – but for the medium and long term, pipelines have been illustrated to be the cheapest option for transporting large volumes of hydrogen across long distances below 1000km. At just 750km from the German coast, and with many pipelines already criss-crossing the North Sea, we are keen to ensure centres of production in Scotland are connected to European networks.
- **We want to be on the list of commonly cited import countries for Germany and to engage in the projects and partnerships to make that reality.**

2.[redacted – out of scope]

3.[redacted – out of scope]

4. SCOTLAND'S RELATIONSHIPS WITH VARIOUS GERMAN LÄNDER

- We have cooperation agreements with five German Länder: Bavaria (2017), Baden-Württemberg (2022), Hamburg (2021) North-Rhine Westphalia (re-signed 2022) and Rhineland-Palatinate (2021)
- The most recent, with Baden-Württemberg was signed earlier this week, with a focus on promoting exchange and co-operation on climate and energy, business and entrepreneurship,

research and innovation; and environment. As with all of our agreements, this has generated a quite a lot of press coverage in Germany.

- We have hydrogen focussed agreements with Hamburg and Bavaria, and an emerging partnership with Lower Saxony on renewable energy.
- Our growing engagement with H2 Bavaria has been positive and productive – a delegation from Bavaria visited Scotland in May, and a further delegation from Baden-Württemberg undertook a 3-day hydrogen themed visit to Glasgow and Aberdeen this week.
- Our agreement with Rhineland-Palatinate is focussed on culture, education, higher education and research

5.[redacted – out of scope]

6.[redacted – out of scope]

BACKGROUND BRIEFING**1 Dec Ambassador Berger Hydrogen Roundtable with Mr Matheson**

An engaging discussion covering:

- The need to develop a pipeline between Scotland and northern Europe as soon as possible, for Scotland-EU engagement on the matter;
- The need to ensure Scotland is well connected to EU hydrogen backbone;
- The need for Europe to seize the opportunity hydrogen presents (including through significant investment in the US) to ensure competitiveness, and to retain and create skills and resources;
- The value of Scotland-Germany agreements on hydrogen, and cluster engagement that followed;
- [redacted – s.32(1)(a) International relations]

[redacted – out of scope]

Scotland-Germany Hydrogen Research Awards

- The Scottish Government launched a small bilateral scheme last year to foster research- and practice-based partnerships between Scotland and Germany to lead the way towards a decarbonised future.
- This was launched alongside the Scottish Government's draft Hydrogen Action Plan which articulates the actions that will be taken over the next five years to support the development of a hydrogen economy to further our efforts to reduce greenhouse gas emissions from Scotland's energy system while ensuring a just transition.
- Four projects have been successful under this scheme delivered by the Royal Society of Edinburgh with each receiving between £10-30 K in funding grants.

[redacted – out of scope]

Berlin Energy Transitions Dialogue (BETD)

- Thank you for your suggestion that the Scottish Government attend the 2023 BETD. Officials will look to the possibility of a Scottish Government presence.
- The Berlin Energy Transition Dialogue is hosted and supported by the German Federal Government and is a joint initiative of the German Renewable Energy Federation (BEE), the German Solar Association (BSW-Solar), the German Energy Agency (dena) and eclareon.

- The Berlin Energy Transition Dialogue (BETD) is a leading international forum for key stakeholders of the energy sector. High-level policymakers, industry, science and civil society are given the opportunity to share their experiences and ideas on a safe, affordable and environmentally responsible global energy transition.

| ENGAGEMENT REPORT – ANGUS ROBERTSON MEETING WITH MIGUEL BERGER | |
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| Minister | Angus Robertson (AR) Cabinet Secretary for the Constitution, External Affairs and Culture |
| Type of engagement | Introductory meeting with the German Ambassador to the UK, Miguel Berger |
| Date | 17 November 2022 |
| Attending Official(s) | Ewan Crawford – Special Advisor [redacted] – Senior Policy Delivery Manager, Scotland House London |
| Who | <ul style="list-style-type: none"> Miguel Berger (MB), German Ambassador to the UK (since May 31 2022) [redacted] – First Secretary Political, German Embassy, UK |
| Key Points | <ul style="list-style-type: none"> AR reflected on his personal connections to Germany. AR and MB exchanged on their upcoming visits to Berlin and Scotland respectively. AR set out Scotland's significant potential for green hydrogen. He noted that Scotland's potential exports would match Germany's predicted future demand and that Scotland was an important trading partner for Germany. AR added that this is thanks to the extensive offshore wind potential in Scotland, as evidenced by the outcomes of the first ScotWind leasing round. MB noted the opportunities here and showed interest in current operational offshore wind, as well as the size of near and long-term pipeline projects. He indicated that the infrastructure to enable the transfer of power is another question. AR highlighted the importance of North Sea cooperation. MB noted the Berlin Energy Transitions Dialogue, in late March 2023. He suggested that the Scottish Government should take part. MB asked for a briefing on Scotland's renewable industries, particularly offshore wind and hydrogen, during his upcoming visit to Scotland. He was interested to understand the current capabilities as well as future potential. [redacted – out of scope] |
| Action points | <ul style="list-style-type: none"> Officials to provide German counterparts a copy of Scotland's EEZ map. Officials to coordinate a renewables briefing for the Ambassador on his upcoming visit. |

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| | <ul style="list-style-type: none"> • <i>Officials to provide German counterparts with suggestions and relevant contact details for meetings on business links, such as Chambers of Commerce or SE.</i> • <i>Officials to investigate the potential for participation at the Berlin Energy Transitions Dialogue</i> • <i>Officials to provide an overview of Laender co-operation</i> |
| Comment | <p><i>Warm first meeting between the Ambassador and Cabinet Secretary.</i> [Redacted – s.32(1)(a) International relations]</p> |

| EU ENGAGEMENT REPORT | |
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| Minister | First Minister (FM) |
| Type of engagement | Meeting with Miguel Berger, German Ambassador to the UK |
| Date | 2 December 2022 |
| Attending Officials | Frank Strang – Deputy Director European Relations |
| Who | <ul style="list-style-type: none"> • Miguel Berger, German Ambassador to the UK (MB) • Dr Andreas Zimmer, Consul General |
| Key Points | <p>FM warmly welcomed the Ambassador and stressed that Scotland was very keen to deepen links with Germany at both the Federal and Laender level, particularly on energy.</p> <p>On hydrogen, FM highlighted the need for Germany and Scotland to work together on pipelines and other practical infrastructure. MB agreed, and reassured FM that Germany’s plans for hydrogen were well underway following €8 billion of investment in technological advances, and the signing of 4 MOUs with Scotland.</p> <p>[redacted – out of scope]</p> <p>[redacted – s.32(1)(a) International relations]</p> |
| Comment | A notably warm and constructive conversation. [redacted – s.32(1)(a) International relations] |
| Action points | <ul style="list-style-type: none"> • [redacted – s.32(1)(a) International relations] • Officials to explore further opportunities for engagement with MB, including [redacted – s.32(1)(a) International relations] |