

The 4th UK-Taiwan Energy Dialogue Expanding bilateral cooperation for a net zero future

British Office Taipei and the Bureau of Energy, Ministry of Economic Affairs co-hosted the fourth UK-Taiwan Energy Dialogue to discuss ports for the offshore wind industry, biomass energy, and pathways to reach net zero by 2050 on 5 July. The Dialogue was attended by John Dennis, Representative at the British Office Taipei and WANG Mei-Hua, Minister of Economic Affairs, and was chaired by Julie Scott, Head of Energy Diplomacy of Department for Business, Energy & Industrial Strategy (BEIS) and YU Cheng-Wei, Director General of the Bureau of Energy (BOE). The participants reached agreement to cooperate on a joint project on offshore wind ports development.

John Dennis, Representative at the British Office Taipei said,

I am delighted that our fourth Energy Dialogue has produced another round of rich discussions on our partnership as we work towards a net zero future together. Since the last Dialogue it has been excellent to see Taiwan publish its net zero roadmap and take steps to enshrine its targets in law. Our growing partnership is perhaps most clearly evident in offshore wind, where we now have 36 UK companies set up here in Taiwan to support the development of the sector as it rightly aims to become a hub for the region. I am sure the joint project agreed here will further deepen our already strong co-operation on energy and climate change.

WANG Mei-Hua, Minister of Economic Affairs said:

To tackle climate change, we have announced the target of reaching net-zero emissions by 2050. We also published "Taiwan's Pathway to Net-Zero Emissions in 2050" in March of this year, which includes 12 specific strategies and increasing the share of renewable energy in the energy mix as one of the key strategies. Taiwan and the UK have common goals of continually developing low-carbon energy and achieving net-zero emission. I hope both sides continue to exchange views in the energy field in the future.

Julie Scott, Head of Energy Diplomacy at BEIS said,

I am glad to have the opportunity to co-chair the fourth UK-Taiwan Energy Dialogue with Director-General YU Cheng-Wei of the Bureau of Energy, and welcome Taiwan Power's upcoming mission to the UK later this year, including a visit to Drax Power Station. I am convinced

that we can further enhance the bilateral collaboration on sustainable biomass energy, building on the links established through this Dialogue.

YU Cheng-Wei, Director General of BOE also said:

I want to express my sincere gratitude to all participants from both sides for sharing your insight and experience during the meeting. I am happy to see the progress of the Taiwan-UK joint research project on carbon emissions reduction and the advice given by both sides for Taiwan's pathway to net-zero emissions by 2050. I also expect to see that both sides can work together to create mutual benefits while moving toward net-zero transition.

During the Dialogue, the UK's Department for International Trade and BVG Associates described the crucial role port infrastructure has played in developing the UK's offshore wind sector. UK ports are continually evolving to support supply chain needs and achieve the UK's ambitious renewables generation targets. Participants reached agreement on a joint project to support the long-term development of Taiwan's port infrastructure.

The Department for Business, Energy & Industrial Strategy shared UK experience and best practice in the sustainable use of biomass as part of the transition away from coal. Taiwan Power Company shared their assessment of the future of biomass in Taiwan and will have a follow up visit to the UK to draw on UK expertise in the sector.

The UK's Energy System Catapult then highlighted the importance of floating offshore wind and grid transformation while providing an update on the Catapult's progress in developing scenarios for Taiwan's pathways to net zero. In the subsequent discussion the British Office Taipei proposed a joint research project further exploring policies and technologies to improve grid resilience.

[Statement from Steve Barclay, Secretary of State for Health and Social Care](#)

News story

A statement from Steve Barclay on his appointment as Secretary of State for Health and Social Care.



Health and Social Care Secretary Steve Barclay said:

It is an honour to take up the position of Health and Social Care Secretary. Our NHS and social care staff have showed us time and again – throughout the pandemic and beyond – what it means to work with compassion and dedication to transform lives.

This government is investing more than ever before in our NHS and care services to beat the Covid backlogs, recruit 50,000 more nurses, reform social care and ensure patients across the country can access the care they need.

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[Ministerial appointments: 5 July 2022](#)

Press release

The Queen has been pleased to approve the following appointments.



The Queen has been pleased to approve the following appointments:

- Rt Hon Nadhim Zahawi MP to be Chancellor of the Exchequer
- Rt Hon Steve Barclay MP to be Secretary of State for Health and Social Care
- Rt Hon Michelle Donelan MP to be Secretary of State for Education

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Joint statement between the UK and Egypt following the Association Council – 5 July

The Secretary of State for Foreign, Commonwealth and Development Affairs, the Right Honourable Liz Truss welcomed His Excellency Mr. Sameh Shoukry, the Minister of Foreign Affairs of Egypt to London on 5 July for the inaugural meeting of the UK-Egypt Association Council.

The inaugural Association Council created a new platform to further the ambition laid out in the UK-Egypt Association Agreement, signed in December 2020. Within this framework, the Ministers had fruitful discussions on the development of the strategic partnership between the United Kingdom and Egypt.

The Ministers welcomed a number of recent commercial successes between the UK and Egypt, including:

- The two-line Cairo Monorail project, which includes trains manufactured in Derby, and is supported by UK Export Finance (UKEF)
- The sale of two ex-Royal Fleet Auxiliary (RFA) ships to the Egyptian Navy, including contracts for their refit and upgrade;
- The opening of a new 66MW solar farm by Globeleq, following an investment worth \$80m;
- The finalisation of a \$100m investment by British Investment International (BII) to acquire Alfa Medical Group;
- The launch of commercial operations at the Lekela wind farm, following an investment worth \$325m.

The Ministers discussed prospects for enhanced economic cooperation between the UK and Egypt. They agreed to working intensively to grow bilateral trade and investment, including through tackling any barriers to trade and sharing expertise. They also committed to work towards reviewing and improving market

access in the agriculture, healthcare, energy, and financial sectors, through the newly established subcommittee on trade.

The UK and Egypt emphasised their commitment to strengthening bilateral cooperation and investment in healthcare and education, given both fields' direct impact on levelling-up, job creation, and enhancing the quality of public services.

The Ministers welcomed deeper technical collaboration that will support joint work to overcome market access barriers in priority sectors. Including:

- A new phase of collaboration between NHS's National Institute for Health and Care Excellence (NICE) and Egypt's Unified Procurement Authority (UPA), helping to institutionalise Health Technology Assessment (HTA) in Egypt.
- A joint statement of intent signed between Egypt's Energy Regulatory Authority (EERA) and the British Office of Gas and Electricity Markets (OFGEM,) to help in reforming Egypt's renewable energy regulations.

The Ministers welcomed strengthening cooperation in Africa and exploring trilateral cooperation opportunities with African countries in various fields, particularly infrastructure.

The UK welcomed Egypt's preparations to host COP27 in Sharm el Sheikh (November 2022) as it takes over the COP Presidency. The UK and Egypt reinforced cooperation to deliver ambitious outcomes at COP27 building on the Glasgow Climate Pact and previous COP decisions. Both countries noted the importance of supporting developing nations in effecting a just transition, including through the transition to sustainable energy and green hydrogen, as well as in adapting to the impacts of climate change, including through the sustainable & integrated management of natural resources, enhancing resilience and building technical and technological capacities in this regard. The UK commends Egypt's leadership and efforts on renewable energy generation and opportunities for British investors and firms within the energy sector.

The Ministers also discussed a wide range of bilateral, regional and global issues of mutual interest, including on consular issues and human rights.

The Ministers looked forward to holding the meetings of the Association Council regularly to further enhance Egypt-UK cooperation in various fields and take stock of progress.

BepiColombo

Overview

The BepiColombo spacecraft:

- was launched on 20 October 2018
- is currently in cruise phase towards its destination
- is due to arrive at Mercury in late 2025
- is a joint mission between Europe and Japan
- has key UK involvement

Introduction

Almost as dense as the Earth but not much bigger than our Moon, Mercury is the second smallest planet in the Solar System; scientists believe Mercury's high density can be put down to the planet having a massive iron core.

The surface is pock-marked with enormous craters caused by meteorites smashing into the planet's surface in the early stages of the Solar System's evolution some four billion years ago.

BepiColombo will be only the third spacecraft to visit Mercury in the history of space exploration. The mission will increase our understanding of all aspects of the planet, from its composition, structure, atmosphere and magnetic environment.

Mercury's harsh environment makes it a particularly challenging mission. The spacecraft will have to endure intense sunlight and temperatures up to 350°C while gathering data.

BepiColombo is named after Giuseppe 'Bepi' Colombo (1920-1984), a scientist who studied Mercury's orbital motion in detail as well as orbits and interplanetary travel in general. Although the temperature on Mercury can go as high as 462°C, the side of the planet facing away from the Sun is always very cold. One of the key objectives for BepiColombo is to find out whether there is ice on the cold side of the planet.

The mission will build on the experience gained in using electric propulsion on the SMART-1 mission. BepiColombo's journey will also be helped by the gravity of the Moon, Earth and Venus during fly-bys to help it on its way to Mercury. It will take the BepiColombo spacecraft seven years to reach its destination.

Technology

BepiColombo consists of four sections: a Mercury Transfer Module (MTM) – designed to get the spacecraft to the planet; two orbiters: the European Mercury Planetary Orbiter (MPO) and the Japanese Mercury Magnetospheric

Orbiter (MMO); and a sunshield and interface structure (MOSIF) to protect it during the cruise phase.

ESA is responsible for the larger MPO. Its 11 scientific instruments will study Mercury from a low-polar-orbit.

MIXS will measure fluorescent X-rays that come from the Sun and are reflected off the planet's surface. Fluorescent X-ray measurements can be used to identify chemical elements while measurements at infrared wavelengths can be used to determine mineral composition.

Japan developed the MMO. This has five science instruments on board designed to examine Mercury's magnetic field and magnetosphere – the magnetic 'bubble' surrounding a planet. Mercury intrigues scientists because it is hard to understand why such a small planet can have a magnetic field at all.

BepiColombo will make its way to Mercury with an ion engine. This employs solar panels to generate electricity which is used to produce charged particles from xenon gas. A beam of these charged particles, or ions, is then expelled from the spacecraft. The engine will be used to slow the spacecraft down so that it can eventually be captured by the gravity of Mercury.

UK involvement

Key items of the spacecraft were built in the UK in partnership with several UK science teams. The UK's involvement in BepiColombo is funded by the UK Space Agency.

UK space scientists, led by the University of Leicester, developed one of the key instruments on board BepiColombo: MIXS (Mercury Imaging X-ray Spectrometer). MIXS will be used to help find out about what the planet's surface is made of. This will help to explain how the planet formed during the early history of the Solar System.

Airbus Defence and Space (Germany) was appointed as the prime contractor to build the European components. Airbus UK provided all the spacecraft structures as well as the electrical and chemical propulsion systems for the MTM, the chemical propulsion system for the MPO (which will be the first dual mode propulsion system designed and built in Europe) and the systems which will separate the spacecraft modules on arrival at Mercury.

QinetiQ (UK) was awarded the contract to supply the innovative electric propulsion system for BepiColombo. Electricity generated by solar panels will be used to produce charged particles from xenon gas. A beam of these charged particles, or ions, is then expelled from the spacecraft to propel it forward. Ion propulsion produces low levels of thrust very efficiently compared with conventional chemical rockets.

SEA Ltd (now Thales Alenia Space UK) was contracted to supply the Remote Interface Units (RIU's) for the MPO and the MTM. The RIU's are important equipment for both spacecraft as they acquire the critical sensor data and telemetry as well as driving the thrusters that control the spacecraft.