



Wilton Park

Concept note

Green grids: connecting Asia

Interconnecting electricity markets to meet the climate challenge

Thursday 28 – Saturday 30 March 2019 | WP1656

Wiston House, Steyning, UK

Summary

After several years of flatlining, 2017 saw greenhouse gas emissions rise once again. Asia accounted for more than half of global emissions, and two thirds of the year-on-year increase. Under the Paris Agreement, all countries in the region have committed to significant increases in renewable energy capacity as a key plank of their responses to climate change, yet insufficient electricity transmission capacity threatens to act as a bottleneck to greater integration of renewables, slowing the transition to clean energy. This meeting will convene energy ministries, legislators, investors, utilities, project developers and regulators with the aim of overcoming diplomatic obstacles, increasing cooperation and strengthening investor confidence in cross-border transmission projects.

Context and policy goals

Reducing the risk of dangerous climate change is a diplomatic priority for the UK. Almost two thirds of greenhouse gas emissions come from fossil fuels, making the global transition to clean energy the key to reducing climate risk. Climate impacts hit the poorest people hardest, so extending renewable energy capacity offers a double development dividend, providing the economic benefits of modern energy services to the hundreds of millions in the region who remain without reliable electricity access while reducing their vulnerability to climate hazards.

Interconnecting electricity grids increases the efficiency of investments in the energy transition by reducing variability of supply due to weather conditions, as well as by connecting population centres to the cheapest renewable energy resources. Large-scale solar power stations in the deserts of China and India, for example, could meet much of the region's growing demand without displacing agriculture. In all parts of Asia, governments are committed in principle to increasing grid interconnections, but more robust institutions and diplomatic channels will be required to facilitate the planning and financing of cross-border trading capacity.

Wilton Park and its partners will host this event in collaboration with the recently-launched Green Grid Initiative, an informal global leadership group comprising states, companies and legislators. As of September 2018, 29 energy or environment ministers had committed to taking part in the initiative, which was launched at a planning meeting hosted by Mexico's Minister of Energy in Mexico City in May 2018. In Asia, Bangladesh, India, Indonesia, Mongolia and South Korea have already joined, with China having been represented at planning meetings by the Global Energy Interconnection Development and Cooperation Organization (GEIDCO), an initiative of the State Grid Corporation of China (SGCC).

The UK was among several European countries represented at the Mexico launch. Its technological expertise in smart grids and policy expertise in electricity market reform – along with a surging appetite in the City of London for green investments – make it a natural partner for Asian countries exploring the prospects for regional grid integration and electricity trading. The UK's own National Grid is fast becoming one of the most interconnected in the world: within four years around 20% of Britain's power supply will be tradable through undersea cables linking the UK with Ireland, France and almost all the North Sea nations. The UK enjoys a cross-party consensus on the need for greater regional grid integration in Europe and worldwide.

Goal and objectives

This meeting seeks to build diplomatic and parliamentary support for – and strengthen investor confidence in – new “electricity highways” connecting centres of energy demand to the most abundant renewable energy resources. The dual long-term objectives are to reduce global greenhouse gas emissions and to ensure a reliable supply of cheap, clean energy for all. In addition to plenary sessions for markets analysis and elaboration of general principles for cooperation, participants will be invited to convene into three sub-regions, each focussed around one of the region's largest energy markets – China, India and Indonesia – together with its immediate neighbours. These regional groups will have the following objectives:

- **SOUTH ASIA.** Build on the commitment made by the South Asian Association for Regional Cooperation (SAARC) to establish a “SAARC grid”, in order to advance concrete proposals to connect everyone in the region to the most abundant renewable energy resources. These include solar in the Thar desert, wind power in Tamil Nadu, and hydropower in the Himalayas. Explore what diplomatic initiatives will be required to realise and extend India's ambitious Green Energy Corridors (GEC) programme, which envisages high-capacity connections to Bangladesh, Bhutan, Nepal, Myanmar and Sri Lanka.
- **SOUTHEAST ASIA.** Build on the agreement in principle for increased interconnection within the Association of Southeast Asian Nations (ASEAN) to advance concrete proposals to enable the region to benefit from its strongest renewable energy resources, including the largely untapped solar resource in eastern Indonesia, as well as wind power in the South China Sea.
- **NORTHEAST ASIA.** National grid companies in China, Japan, Mongolia and South Korea have agreed to explore a ‘Northeast Asia supergrid’. Build on this to develop government and parliamentary support for transmission lines which would enable the region to combine the immense solar and wind resources of the Gobi desert in China and Mongolia with the equally large wind resources of the East China Sea and the Sea of Japan. This could help to deliver enough clean energy to power a significant part of the world's industrial capacity, which is found in the region.
- **ASIA-WIDE.** Advance proposals for inter-regional connections within Asia which could increase energy security for all as Asia. For example, India and China both propose to increase exports to the ASEAN region.

Intended outcomes

- Actionable proposals for transmission routes which would be economically viable and would facilitate a major increase in renewable energy generation.
- Establishment of international working groups to study transmission routes in more detail.
- Greater awareness among Asian legislators and policymakers of the critical role of regional grids if Asia is to replace fossil fuels with renewable energy.

- Cross-party parliamentary groups in key Asian parliaments to encourage and support government action.
- Meeting outcomes will be captured in a report summarising the discussions, conclusions, policy recommendations, and actions, which will be widely circulated to interested parties and posted on Wilton Park and other websites.

Who should participate

- Ministers, government officials and MPs from the largest Asian countries (Bangladesh, China, India, Indonesia) and their immediate neighbours, particularly those with excellent renewable energy resources (e.g. Mongolia for solar and wind, Nepal for hydropower, Vietnam for offshore wind).
- Representatives from industrialised countries in the region, including Japan, Singapore, South Korea as well as Australia. In previous Green Grid Initiative discussions the export of solar energy from Australia to Indonesia has been explored.¹
- Expert presenters and advisers from companies and research institutions that can advise on mobilisation of investments, the potential economic viability of different transmission routes, and technical challenges for construction. At least one expert from the GCC Interconnection Authority, which already runs a regional grid in the Gulf, should be invited. There is high-level interest both in the Gulf and in India in trading solar power across the Arabian sea to extend the number of “solar hours” in the day.
- A strong UK presence, including ministers or officials from FCO, BEIS and DFID, City of London investors, and UK companies with expertise in smart grid technologies and North Sea interconnection planning. Climate Parliament, the UK-based global network of legislators providing the secretariat for the Green Grid Initiative, will help to ensure high-level parliamentary representation from the UK and Asia. Its UK trustees include Barry Gardiner MP (Lab), James Heapey MP (Con) and Caroline Lucas MP (Green).

Monitoring and evaluation

Wilton Park’s Monitoring and Evaluation process includes follow-up with all participants, speakers and partners on planned actions. An electronic questionnaire will be completed by all participants during the meeting and a further survey conducted 3-6 months after the event.

Communications

Discussion in all Wilton Park sessions is ‘off the record’ and no individual speaker or participant should be quoted (nor their identity or institutional affiliation revealed) without that individual’s express permission. The protocol also applies to all uses of digital and social media, both before, during and after the event.

Our communications team will develop a communications strategy to promote the themes of the event and maximise outcomes.

Format

Considerable time would be spent by participants in three regional working groups: Northeast Asia, South Asia and Southeast Asia, as detailed above. In plenary, representatives will share ideas and experience on common challenges: policy

¹ Assuming that the bulk of funding for this event will be Official Development Assistance (ODA), non-DAC listed states will be invited to participate at their own expense.

challenges are similar in each region, and the technologies available are the same. They will also discuss possible connections between the three regions.

The participatory format of the meeting, encompassing roundtable discussion during plenary sessions plus time spent in smaller breakout groups, will help generate fresh insights and analysis. It will be held on the basis of non-attributable discussion in a neutral environment designed to encourage an open and constructive exchange.

About Wilton Park

Wilton Park, an executive agency of the UK Foreign and Commonwealth Office, is a global forum for strategic discussion organising over 60 events a year in the UK and overseas, bringing together leading representatives from the worlds of politics, business, academia, diplomacy, civil society and media. We focus on issues of international security, prosperity and justice. Our meetings provide a neutral environment for roundtable discussion encouraging innovation in global thinking. Discussions are non-attributable to encourage frank exchanges and open and lively debate.

Enquiries to:

James Corr , Programme Director

T: +44 (0) 1903 817723 | M: +44 (0)7467 485589

E: james.corre@wiltonpark.org.uk