Newsletter 2017

Climate Parliament Bangladesh

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Bangladesh

Updates in the Bangladesh Renewable Energy Sector

The Bangladesh Government set a target of meeting 10% of the power needs from Renewable Energy by the year 2020 as per its Renewable Energy Policy. Currently the total power capacity from renewable energy stands at 433 MW. This also includes the 5.0 million solar home systems that has managed to provide electricity access to millions of households. The Minister recently announced that by 2019 a total capacity of 700 MW will be installed from renewable energy sources. Further a total of 2,000 mw in 2021 and 4,000 mw in 2030 will be installed. To achieve these targets, a number of other technologies are also being installed like 441 Solar irrigation pumps, 122 solar drinking water systems, biogas plant 45,070, 3,022,213 improved cookstoves have been installed while 75 improved rice boiling system. Another key strategy being followed by the Government is to implement large scale solar projects in different parts of the country that are developed by established international private players. Recently, U.S. based company Sun Edison through its associate firm (Southern Solar Power) signed a Power Purchase Agreement with the Bangladesh Power Development Board to set up a 200 MW solar park in Teknaf District of Bangladesh. The agreement was signed at a tariff of US$0.17/kWh (13.6 Taka). It is interesting to keep in mind that SunEdison is able to deliver solar power projects at a much cheaper rate in the neighbouring country of India due to the policy instrument of competitive bidding used by Government of India.SunEdison, also a major investor in Indian solar market, filed for bankruptcy last year. The Bangladesh Government has also planned to join hands with Adani Group, a large business conglomerate in India, to set up more than 300 MW of solar capacity in Bangladesh. Incidentally, the Adani group has been in the news for its heavy investments in Australian coal mines sector. However, despite several steps, Bangladesh Government has still not opened up its solar energy market to its own private sector. The capacity installations are heavily controlled by Government plans and permits.

Bangladesh offers to invest $2 billion for Nepal hydropower

Bangladesh and Nepal have agreed to investment in a hydro power plant in Nepal. Both the countries will share the electricity generated from the project. Currently, the project is undergoing the preparation of the feasibility study. The amount for investments isbeing anticipated to the tune is that of 2 Bln USD (160 Bln Taka). A similar project is expected to follow in Bhutan as well. In

Source: The voice of renewables

both the cases the electricity will be transported by visa over Indian land area. There is alsoan expectation that a similar exercise is going to be undertaken with Bhutan as well. These moves of the Government can be seen as an attempt to diversify its fuel sources as currently Bangladesh largely depends on natural gas as its key source of fuel for power plants. This will allow the integration of much cheaper source like hydro to be part of the power mix of Bangladesh bringing the average power purchasing cost down. The total installed capacity hydropower based power plants in Bangladesh is 230MW.

Asia Development Bank to stop funding coal power plants in Bangladesh

Source: Reuters: David Gray

The Asia Development Bank announced its new policy in Bangladesh recently. The regional funding organization has decided that it would not financially support coal or nuclear power plants in Bangladesh anymore. However, it remains supportive towards funding renewable energy or gas based power plants. Under renewable energy, solar, wind, hydro and other clean energy initiatives like energy efficiency will be the focus for the Bank. This policy stance is not a sudden one but follows a global trend of many donors or funding organizations. In Paris during the Conference of Parties in December 2015 for signing the new climate agreement from the period 2020 to 2030, at least 400 companies pledged to fight global warming or climate change. Deutsche Bank, as part of this pledge recently announced that it will stop financing coal power projects. In an international report published by Arabella Advisors in December 2016, international investment funds divested as much as USD5.2 tn(415 Tn taka) from existing fossil fuel assets. These long term investment funds are not ethically pressured to pull out of fossil fuel bassets because of climate change concerns of their investors but also are threatened by the imminent risk underlying the future of fossil fuel industry given the large scale investments in the renewable energy sector.

International and Regional Updates

BIMSTECfinalized Agreement for Trans power exchange

On 13th February 2017, seniors officials from the BIMSTEC countries finalized the agreement for a robust power exchange mechanism in the region. BIMSTEC stands for Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, the main objective of which is technological and economic cooperation among South- and Southeast- Asian countries i.e. Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal. The agreement is expected to boost not just power trade amongst all the seven countries but also result in increasing the regional grid interconnection infrastructure. The agreement has been a long pending one due to its need to have the MoU approved by their individual governments. This deal particularly important for renewableenergy technologies as the region is rich with renewable energy resources.

BIMSTEC's renewable power

All figures are in MW

Description	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand
Peak	9,000	333	160,000	2,400	1462	2,164	27,346
Installed capacity	12,780	1,606	307,000	4,422	712	3,963	37,602
Solar Potential	50,000	>58,000	784,990	>26,900	>25,000	>6000	22,800
Wind Potential	>4600	NA	302,251	>33,800	>30,000	>25,000	NA
Hydro Potential	NA	30,000	235,000	>46,000	83,000	NA	15,155

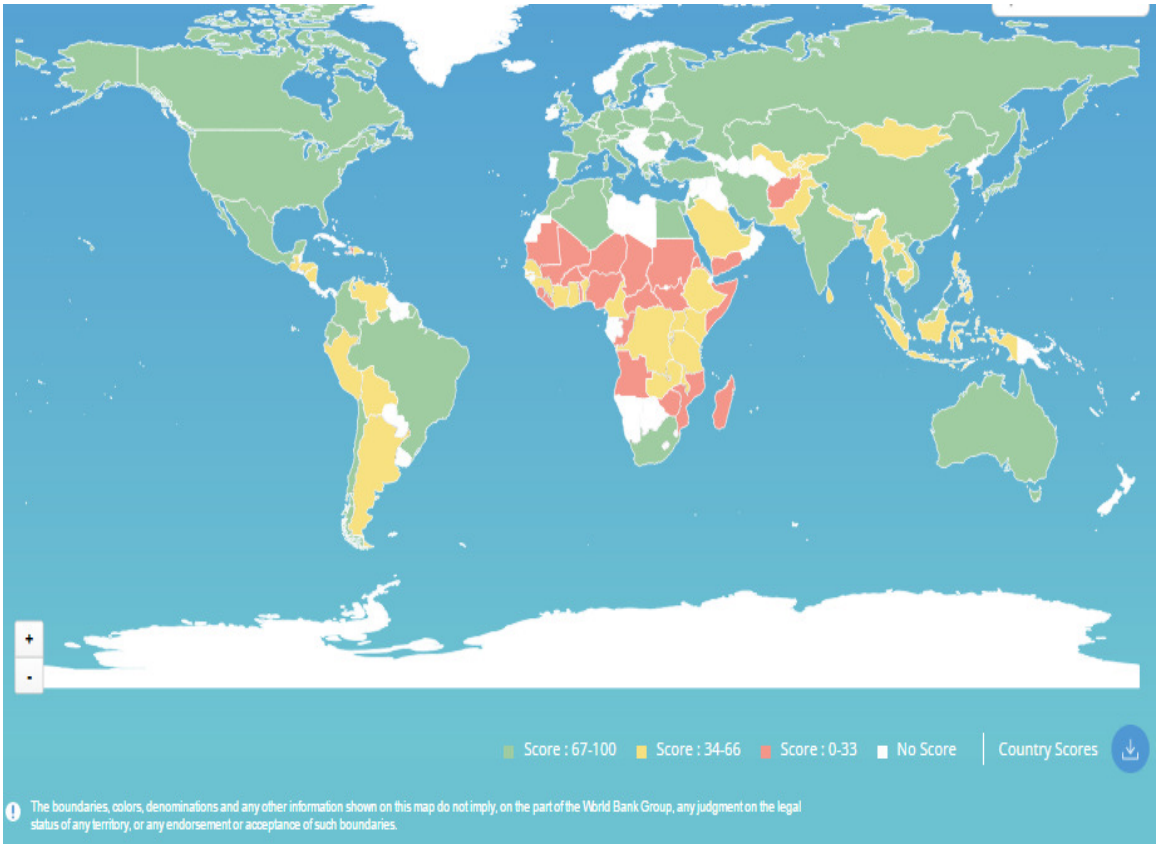
Source: http://www.financialexpress.com/opinion/bimstec-needs-a-power-tool-heres-why-it-is-time-for-a-green-energy-revolution/494732/

Large scale renewable energy has a special requirement of flexible power generation and absorbing capabilities. Therefore. to fully utilize these resources, it will be critical for the erratic nature of renewable energy generation to have balancing capabilities in the grid. With hydro as well as natural gas based power plants in the region, it makes perfect sense to connect the renewable energy resource rich regions with such flexible generation capacities. Interconnected grid within the region will greatly help in this initiative. Experts look forward to the fast implementation of this agreement.

World Bank ranks countries for clean energy policies

The World Bank recently published a report that scientifically ranked the different countries on the basis of their clean energy policies, specifically on energy efficiency, renewable energy technologies and energy access. Called the Regulatory Indicators for Sustainable Energy (RISE), the initiative provides benchmarks to evaluate clean energy progress, and insights and policy guidance for Australia and other countries.RISE rates country performance in three areas - renewable energy,

energy efficiency, and access to modern energy (excluding advanced countries), using 27 indicators and 80 sub-indicators. These include things like legal frameworks, building codes, and government incentives and policies. The results of the individual indicators are turned into an overall score

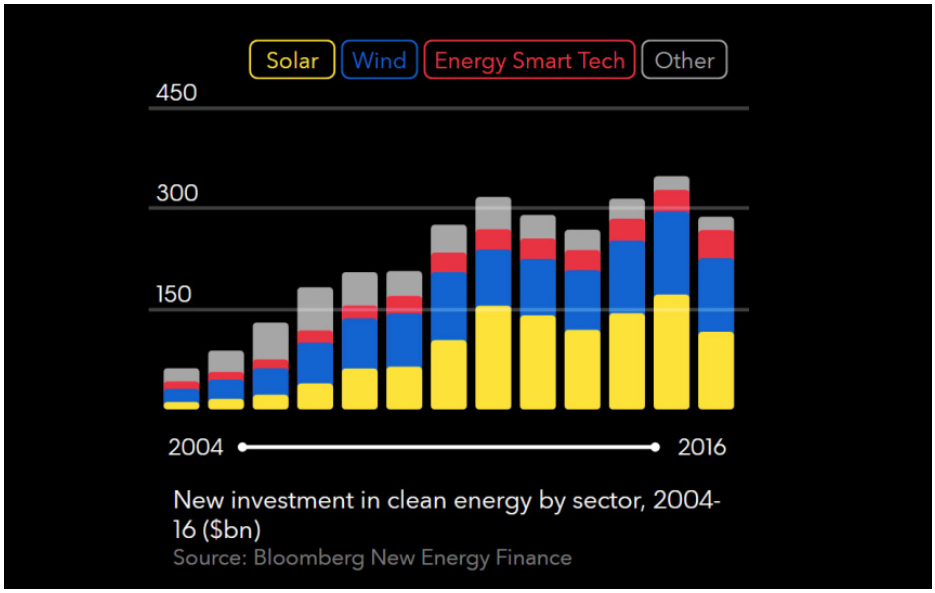


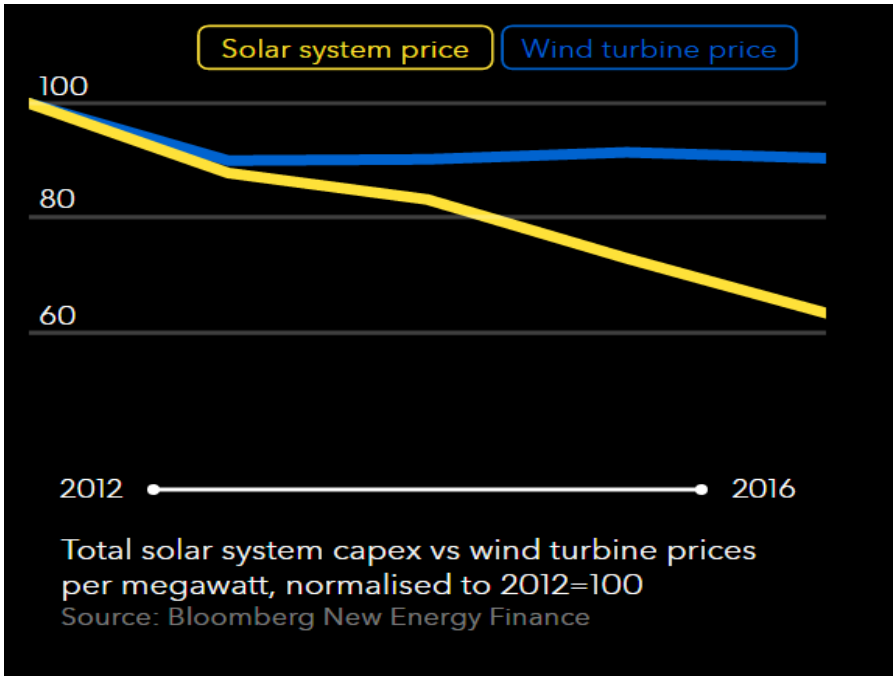
Source: RISE, World Bank

While the scores can be debatable based on worldviews, the scoring and its representation n through the map shows the differences in policy initiatives amongst the south again countries. This is definitely an opportunity to exchange notes amongst these countries and learn from their individual experiences

Renewable Energy Investments Trends 2016

As per calculations by the 2016, clean energy investments figures globally stood at $287.5 bn, a reduction of 18% from the 2015 figure of USD348.5bn. However, this is not necessarily a bad news. Despite a reduction in the investment quantum, the new build capacity has increased significantly. The reason behind this trend is the sharply decreasing costs of renewable energy equipment especially solar and wind. As can be seen, solar and wind have received the largest investments, as has been the case in the past years as well. Within wind however, the interests of investors are increasingly shifting towards offshore windfarms. This could also be an indication of the fact that in case of inland windfarms most of the best potential sites would be occupied already.





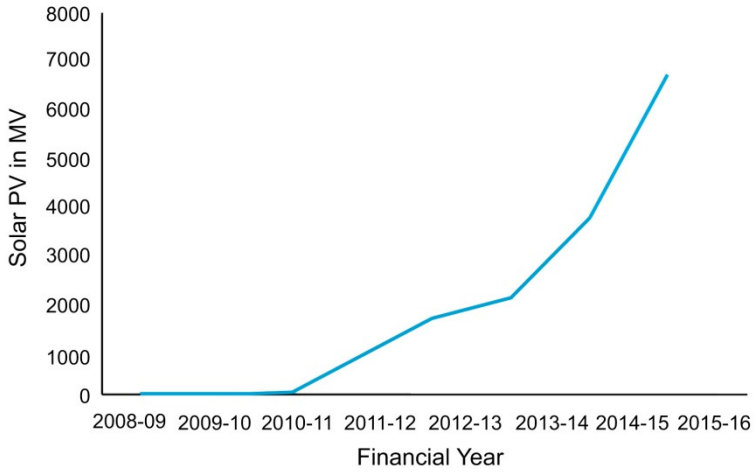
The geographical trends are also quite interesting as the erstwhile investment leaders like China and Japan are witnessing slow down of their clean energy investments as they start concentrating on the integration and utilization of the current capacity. The major bulk of the investments went to the APAC region that typically includes East Asia, South Asia, Southeast Asia, and Oceania. Clean energy sector has been the preferred sector for private sector investments in 2015. The International Energy Agency published a report in September 2016 that clearly established that the investments in clean energy are dwarfing the figures of investment in the fossil fuel segment. "We see a broad shift of spending toward cleaner energy, often as a result of government policies," said IEA Executive Director FatihBirol. Renewable energy investments of USD 313 bn accounted for

nearly a fifth of total energy spending last year, establishing renewables as the largest source of power investment. In terms of technologies, apart of solar and wind, another branch of technology is slowly gaining prominence. According to IEA, Technology innovations boosted investment in smart grids and storage, which are expected to play a crucial role in integrating large shares of wind and solar. While grid-scale battery storage investment expanded tenfold since 2010, their value is predominantly to complement the grid, which continues to absorb much larger investment.

India RE Updates

Indian solar trajectory

India is now part of a handful of countries with 10 GW or more of operational solar power capacity. This analysis was presented by an Indian research firm Bridge to India which states that utility-scale solar power capacity has crossed 9 GW while rooftop solar capacity has crossed 1 GW. India has been promoting its solar sector aggressively while trying to tap the huge potential that it enjoys. 'Being a tropical country, India is solar rich country having on average 300 sunny days in a year. India has higher solar irradiance compared to many other countries and solar electricity potential is between 4 and 7 kWh per sq. m per day in its most parts (Goel, 2016). In 2010, the Government of India launched its National Solar Mission and in 2014, the newly elected Government revised the target under this Mission to 100 GW. Out this 100 GW, India's strategy is to implement 40,000 MW from solar roof top projects, 40,000 MW from solar parks and the rest 20,000 MW from regular capacity installations. A number of fiscal strategies have been implemented and the most successful has been the competitive bidding for fixed capacities by private sector and helped India achieve prices that excitingly close to the cost of conventional fuels. The rapid rise in solar installation in India is an evidence of its aggressive policies.



Solar PV Installed capacity in MW in India from 2008 onwards

Largest solar power plant in India now

Pursuing it ambitious target of achieving 100 GW of solar by 2022, India is now host to the largest solar power plant in the world. In the State of Tamil Nadu, lies the 648 MW solar power plant leaving behind the erstwhile largest solar power plant of 550 MW in California. The project was implemented by the big infrastructure company called the AdaniGroup which has also shown interest in the Bangladesh solar market. The total investment for the project has been around 670 $ dollars

Kamuthi Solar Plant, Tamil Nadu

The project was ready for operation in a matter of 8 weeks. The solar modules used in the project have been sourced from eight international and national vendors. The idea behind this large scale solar power plant is to bring the costs down.

Lowest tariff realised in the latest round of solar competitive bidding

India also realised solar energy's lowest tariff rate till date through a competitive bidding for its proposed largest solar energy power park in the state of Madhya Pradesh i.e. REWA, a 750 MW joint venture between Solar Energy Corp of India (SECI) and Madhya Pradesh UrjaVikas Ltd. This proposed solar park, when implemented fully, will help India break its past record of 648 MW in Tamil Nadu. In a recent bid invited from the private sector investor for a tariff for the solar power plants inside the park, India managed to attract bids of INR 3.30/kWh ($0.052/kWh, 3.9 Taka/kwh) – the lowest ever recorded in India.Bidding rules outlined by the developers deemed that the lowest tariff accepted would serve as a base price for the reverse auction. The developers that submitted the highest proposed tariff would be excluded from the e-auction. This unique set of rules has helped to drive the cost below the previous Indian record-low of Rs. 4.34/kWh, set last year in Rajasthan (PV- Magazine, 2017).The Rewa solar capacity is being doled out in three, 250 MW units atfinallevelised tariff of Rs 3.309, Rs 3.30 and Rs 3.304. The project has been made financially secure and bankable by ensuring financially sound purchasers of the electricity produced by the project Delhi Metro Rail Corporation and Madhya Pradesh Power Management

Company will buy all the power generated from park. The state government, along with a payment guarantee, will also pay compensation if sufficient grid is not available for transmission of power from the project.

Climate Parliament Updates

Bangladesh

Towards Renewable Energy Roadmap and Renewable Energy Fund

Dhaka. On 26th January 2016 the Climate Parliament organised a workshop at the office of the SREDA to impress upon legislators and administrators the need both to develop a Renewable Energy Roadmap and also to take the important step of establishing a Renewable Energy Fund for the country. Mr. Nasrul Hamid, Minster of Power, Energy and Mineral Resources inaugurated the workshop. At this event Climate Parliament representatives described a series of comparable international cases and gave insights into their experiences regarding the way in which such Renewable Energy Funds had been established elsewhere. In the meeting, Md. Anwarul Islam, Additional Secretary, SREDA, announced that the organisation will prepare a blueprint on the RE Fund on the basis of the international case studies, presented by Climate Parliament. The meeting was attended by Climate Parliament Bangladesh MPs, the officials of Ministry of Power and SREDA, the representatives of the civil society who are active in the field of power and energy.

The meeting also discussed the issues for regional cooperation in South Asia. As a result of Climate Parliament's presentation of a series of transferable models as well as its sharing of information with SREDA, the latter recognised the applicability of such International models to the specifics of their situation and so agreed to take up the task of establishing a Renewable Energy Fund of their own for Bangladesh.

Bangladesh Energy Week

Dhaka. On 13th December 2016, Climate Parliament and its Global Executive Director Dr Sanjay Kumar attended Bangladesh Energy Week's SmartGrid seminar in Dhaka, in order to present on a panel with the Bangladeshi State Minister of Information & Communication Technology, Mr. Zunaid Ahmed Palak MP and the Minister of Science & Technology, Mr. Yeafesh Osman - both members of the Climate Parliament group of legislators in the Bangladeshi Parliament. Up for discussion was the issue of transnational interconnections for the sake of energy security, economy and mitigating climate change.

India

Launch of Legislators-Business Forum on Low-Carbon Local Development

New Delhi. On 5th December 2016, the Indian capital witnessed the launch of the *Legislators-Business Forum,* jointly organized by the Federation of Indian Chambers of Commerce & Industry (FICCI) and the Climate Parliament India. The launch was attended by eminent parliamentarians, CEOs and CSR heads of companies, who are currently are implementing low-carbon solutions. They provided insights on how industry can collaborate with legislators to execute low carbon projects on the ground in the various geographies encompassing the legislative constituencies.

The Forum draws its' inspiration from the global commitments on Sustainable Development Goals and Climate Change Agreement and intends to draw attention towards scaling local actions. The aim of this Forum is to focus attention on developing and updating knowhow of Legislators and businesses about latest developments on clean energy technologies with special focus on decentralized renewable energy systems, as well as other low carbon solutions in waste management, water and sanitation.

"The Forum is being launched at a crucial time when India needs to balance its economic growth imperatives with environmental sustainability. Decentralized low-carbon solutions targeted at rural, remote and marginalized populations are key catalysts for India's inclusive growth, keeping our development deficit in mind", **Dr A Didar Singh, Secretary General, FICCI.**

"I believe, this endeavor can escalate the potential to scale up low carbon growth exponentially, this Business Forum will not only showcase the our collective resolve in climate change, but also promote a ' bottom up' low carbon growth" **Shri Rajiv Pratap Rudy, Hon'ble Minister of State(IC), Skill Development & Entrepreneurship and Chairman, Climate Parliament India.**

"India is leading from the front in terms of carrying out the most massive renewable energy expansion program in the world. The share of LED lighting has moved from 0.2% to 16% in India. Going forward, this forum should expand its' engagement to press, public, businesses, policy makers, and state legislators to encourage others. Moreover, there is a need to change the mindset of India that everything needs to rest on the laurels of subsidies, but instead could be made in to economically viable projects" **Shri Piyush Goyal, Hon'ble Minister(IC) for Power, Coal, New and Renewable Energy and Mines.**

Indian MPs Partner with Energy Policy Institute at the University of Chicago

New Delhi. With the goal of accelerating pragmatic solutions for India's diverse energy challenges, Indian MP's through the Climate Parliament began a partnership with the Energy Policy Institute at the University of Chicago's India office (EPIC-India) on the 21st February 2017. Through the collaboration, the two organizations will work together in the areas of electricity sector reform, energy and environment policy analysis and capacity building.

The MoU signing ceremony in New Delhi was attended by Dr Sanjay Jaiswal, Member of Parliament from PaschimChamparan in Bihar and Mr Vincent Pale, Member of Parliament from Shillong in Meghalaya.

Sharing his thoughts, MP DrJaiswal said, "I am hopeful that this partnership will open new avenues for addressing energy access and several opportunities for implementing low carbon technologies. All of legislators of Climate Parliament network have shared vision which is to see that every citizen of our region has access to clean, reliable and affordable energy."

MP Mr Pale added, "Both EPIC- India and Climate Parliament would work together to develop capacity building modules for legislators in the field of energy and environment. This would help the country in achieving its sustainable development goals."

Of the partnership, EPIC Director Michael Greenstone said, "We are excited to be entering into this innovative partnership with India's policymakers as they take on the dual challenges of ensuring the availability of reliable and inexpensive energy to grow their economy while protecting their citizens from pollution."

Greenstone, the Milton Friedman Professor in Economics, the College and the Harris School at the University of Chicago, added, "We look forward to collaborating to answer the specific questions and challenges they face every day."

Global

Climate Parliament Marrakesh Hearing

In November 2016, the Climate Parliament hosted a parliamentary hearing on the sidelines of the UNFCCC COP22 climate talks, concentrating on the remarkable opportunities presented by large-scale renewable energy for powering the global economy, fighting energy poverty, and achieving deep decarbonisation, but also the considerable roadblocks preventing further development of the grids, interconnectors and international energy trading required to achieve this goal. MPs from all over the world attended the event, and committed to climate action in their national parliaments to support the Paris climate treaty ratified earlier in 2016.

At the event, Climate Parliament launched new Green Grid Network, a nexus of legislators and analysts from twenty less-industrialised economies and partners from the global north, dedicated to accelerating the transition to renewable energy and the construction of the new grids that are needed to create a 100% reliable supply of clean energy for all.

The Green Grid Network will support the International Solar Alliance launched by 121 countries at the Paris climate summit, with the aim of deploying 1 terrawatt of solar power (roughly the power supply of the United States) by 2030. And it will help to convene a Green Grid Alliance of 20-25 governments to act as a leadership group on new renewable energy infrastructure, ranging from renewable energy microgrids at village level to continental-scale supergrids connecting us to the best sources of cheap renewable energy, such as sunny deserts and windy coastlines.

The Parliamentary Roundtable brought together MPs, experts, and government officials for urgent discussion of how this agenda can best be advanced.