



Wilton Park



Report

**BRI investment in the energy sector: framing sustainable policy solutions for the post-COVID world**

Monday 7 – Thursday 10 September 2020 | WP1744V1

In association with:

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## Report

# BRI investment in the energy sector: framing sustainable policy solutions for the post-COVID world

Monday 7 – Thursday 10 September 2020 | WP1744V1

In association with Growald Family Fund, Stanley Center for Peace and Security, the UK Department for Business, Energy and Industrial Strategy (BEIS), GIZ, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), the European Climate Foundation, the Green Finance and Development Centre, World Resources Institute (WRI) China and Energy Foundation China.

### Executive summary

Most energy sector spending in response to COVID-19 thus far has not prioritised sustainable investment. The political economy and infrastructure framework in many countries favours traditional carbon-intensive infrastructure projects. However, global markets have acknowledged the inevitability of an energy transition as financial institutions recognise that fossil fuel investments are a greater stranded asset risk and debt burden for governments. A green shift in China's Belt and Road Initiative (BRI) investments is thus economically and financially prudent, as sustainable and resilient projects will be more attractive to investors for the coming decades. Green infrastructure investments can diversify economies, create more jobs, and be a centrepiece for stimulus packages. A green BRI shift requires commitment from at least four key groups: Chinese institutions, host countries, global partner institutions, and diplomatic leaders.

### Chinese institutions

China has already signalled high-level political commitment in principle to green the BRI, though implementation remains a challenge. Measures that could have significant impact include the following.

- China could fund smaller south-south cooperation projects (\$1-\$5million) for green investment. Instead of fossil fuel infrastructure, China can provide more investment in transmission and distribution upgrades
- China can share expertise in financial products such as sustainable, green/ESG (environmental, social and governance) bonds and facilities.
- Chinese companies can increase engagement with the European Bank for Reconstruction and Development (EBRD), Asian Development Bank (ADB) and Asian Infrastructure Investment Bank (AIIB) for green projects.
- China could promote integrated grid solutions for energy infrastructures in host countries.
- China can connect its own civil society organisations for greater south-south cooperation.
- China can enhance environmental and climate considerations for project investments through the "traffic light system" that is already under discussion.

## **Countries in the Belt and Road Initiative**

Host country demand for more green investments instead of asking for disproportionately high levels of investment in coal constitutes a critical condition for a stronger green BRI shift. Countries should increase collaboration on green investment with Chinese BRI affiliated State-Owned Enterprises (SOEs) and private companies that are contractors, project developers, and financiers. A lesson from China's own development is that having green standards from the outset would have reduced severe water and air pollution. Additional major conclusions and recommendations for BRI host countries follow below.

- It is important for BRI host countries to address the conservatism in behaviour of relevant ministries and procurement officers. These stakeholders can benefit from learning about the rapidly changing energy landscape so they are less likely to prefer outdated fossil fuel infrastructure technologies that could pose long-term stranded asset risks or burdens for government budgets.
- Additional government guarantees for green, sustainable projects can put them on a more level playing field.
- A growing market for green investments and bonds can attract more private sector capital.
- A green coalition of BRI nations could link regulators, utilities, financiers, project developers and others, standardising procurement policies. Green BRI "pilot countries" can support learning on how to scale green investment.
- Governments can support civil society organisations working with counterparts in China.

## **Partner institutions and regional cooperation**

Partner institutions should pursue the following measures and activities.

- Global institutions can encourage formulation of stronger environmental and social governance standards in collaboration with key Chinese organisations such as the National Development and Reform Commission (NDRC), Ministry of Commerce (MOFCOM) and State-owned Assets Supervision and Administration Commission (SASAC), and with ministries in each BRI country.
- Institutions should encourage China to implement green investments with clear targets and timelines and support rapid deployment with a Green Guarantee Fund, dialogues, and help bringing in private finance.
- Accelerate South-South peer-to-peer awareness raising and learning, investment, and development.
- The private sector and multilateral financial institutions should engage more with Chinese companies.

## **Diplomacy**

- Efforts on the part of the global diplomatic community should address basic information asymmetries on green investment, identify the right partners within China and support the development of a Green BRI coalition among host countries.

## **Introduction**

1. Wilton Park and its partner organisations held a closed three-day virtual conference on BRI investment in the energy sector. The core aim of this international dialogue was to identify recommendations and workable policy solutions for prioritising and promoting sustainable energy infrastructure as well as economic recovery while meeting the needs of both BRI host countries and investors in the post pandemic context. Participants included government officials, business sector representatives,

and NGOs and think tank/academic experts from China; Southeast, South and Central Asia; Europe and the United States; and international financial institutions. Regionally focused breakout groups examined in more detail how to develop innovative approaches and incentives to identify and implement green energy projects able to deliver both renewed growth and climate goals across the three Asian regions.

2. The next 18 months are vital as countries decide on massive capital investments in infrastructure to restart the economy and create jobs in response to COVID. However, most energy sector spending in response to COVID thus far has not prioritised sustainable investment. The political economy and infrastructure framework in many countries favours traditional carbon-intensive infrastructure projects. Global markets have acknowledged the inevitability of an energy transition as financial institutions recognise that fossil fuel investments are a greater stranded asset risk and debt burden for governments.
3. A green shift in China's BRI investments is thus economically and financially prudent, as sustainable and resilient projects will be more attractive to investors for the coming decades. Green infrastructure investments can diversify economies, create more jobs, and be a centrepiece for stimulus packages. China's BRI will contribute a large share of the resources for future infrastructure. Governments can use BRI resources to invest in green projects, such as smaller-scale projects with job benefits across diverse Asian geographies that support rural communities in electrifying.

### Common themes

4. Designing a comprehensive **package** for scaling sustainable investments will require changes in policy, financing and planning. Lowering interest rates is not enough to promote private sector investment. Other essential requirements include supportive long-term energy policy, sovereign guarantees for clean technologies, and policy transparency. Renewable energies are economically viable on a stand-alone basis, but due to lack of local capital and liquidity attracting and accessing more foreign capital is necessary to finance projects.
5. Innovative **partnerships** between philanthropy, donor governments, local governments and business can be game changing, but need scaling. More engagement with Chinese SOEs or companies on the green pipeline is needed. Host country stakeholders active in sustainability initiatives need more support to connect with interested stakeholders or investors in China.
6. **Technologies** for investment should include solar and wind, but also grid flexibility and energy storage options. Improved technical capacity is needed for renewables integration in countries. Related areas such as transportation, buildings, energy efficiency and appliances will need to be addressed, with government programmes and policies that can incentivise an integrated approach.
7. **Tools** to scale sustainable investment include allowing corporate Power Purchase Agreements (PPAs) and engaging small and medium enterprises on sustainability in terms of flexibility services, lighting, buildings, and other ancillary energy services. These tools can help reduce the risk of financial exposure from locking-in expensive fossil fuel infrastructure. If China can introduce a "traffic light" system to grade investments on their sustainability, that can help incentivise host countries to invest in more sustainable projects.
8. Countries can create a more attractive investment environment for renewables by **reforming** the electricity pricing mechanism so that subsidies for fossil fuels are substituted by subsidies for renewables, or consumer subsidies for electricity are instead channelled towards improving energy efficiency in residential and industrial buildings.
9. **Transmission and distribution** upgrades are vital for a clean energy transformation

and can be an area for investments during the recovery period. In many countries, outdated grid infrastructure is a limiting factor for renewables integration, causing power curtailments from renewables. In some cases, projects lack connection to the grid or take a long time to connect. The necessary large-scale grid modernisation still faces aversion to high risk from grid companies and conventional lenders.

10. During COVID, renewables consumption may be more resilient than fossil fuel-based power generation, but investments and development have still slowed. Since the COVID crisis, lower electricity demand means companies will hesitate to increase their energy supply. There remains room for growth in **distributed renewables** for rural areas.
11. To enhance technical capabilities, **capacity building** initiatives can help stakeholders share experiences in energy planning, renewables integration, modern grid design and piloting. Chinese companies that are closely involved in the region, either as equipment suppliers, engineering, procurement and construction (EPC) contractors or as shareholders in local grid companies, have very valuable experience in clean energy and can be a key resource for pilot projects and capacity building.

## Highlights from regional breakout group discussions

### Central Asia

12. The region has rich renewable resources, including hydropower in Tajikistan and Kyrgyzstan, wind in Kazakhstan, and solar in Uzbekistan. The aging power generation infrastructure in the region is due to be modernised, which presents an opportunity for green energy. Moreover, Central Asia is 60 percent rural with areas in need of electrification. Green energy investments present great opportunities for job creation and vocational training for local populations, particularly in rural areas. Investment in renewables has been low, with most projects promoted by EBRD, ADB and World Bank, while private sector investors only play a small role. There is room for more private sector engagement in the market.
13. In terms of hydropower, there are local concerns and political considerations such as effects on countries downstream. In general, medium-sized projects are more attractive and less controversial than large-scale ones, and energy projects seem less controversial than mining projects. To attract more renewables, countries can strengthen policy frameworks for public-private partnership and set up a green guarantee fund. Governments need to articulate demand for foreign direct investments in renewables and provide quality information about the region to attract investors. Countries can educate the public on the importance of renewables through issue linkages, such as highlighting the impact that the smog generated by coal-fired power plants in Bishkek has on public health and how renewables can mitigate that.

### South Asia

14. Countries in the region already have large capacity payment issues for high-carbon power plants, requiring payment either through budgetary allocations or increasing the burden on consumers. This is a growing concern in Pakistan and Bangladesh, where power planning forecasts indicate there may be excess capacity in the years ahead if current planned investments are implemented. Sri Lanka may lock in high-carbon infrastructure that would require large capacity payments.
15. At the same time, India may propose a World Solar Bank to finance investments in solar energy, which is separate from BRI, but good for the region. At present, Bangladesh plans 17GW of coal but only 0.5GW of renewables. Pakistan has 10GW of coal planned but has a 30 percent renewables target for 2030. Pakistan needs more investment in transmission and distribution going beyond planned BRI investments in special economic zones and railways.
16. In Nepal, the focus has been on hydropower, though some regions have good solar potential. There needs to be an improvement in discussions between government,

investors and utilities in Nepal, including on transmission issues, as current government allocation of resources will only cover half of required investment; hence the importance of bringing in investment from BRI and other sources, such as additional investment from India and funds from the US Millennium Challenge Corporation (MCC), to bridge financing needs.

### **Southeast Asia**

17. The motivations and current status of renewables deployment is uneven between countries. Some countries are still facing energy access issues. Others have fairly efficient energy markets. For example, Vietnam's successful Feed-in-tariff scheme has attracted foreign direct investments.
18. To make grid companies more comfortable with doing upgrades, proof-of-concept could be carried out using pilot projects, notably with micro-grids in remote areas, which limit the risk for the rest of the grid. These pilots could help convince grid companies of the feasibility, stability and benefits of renewables. In the post-COVID recovery, pilot projects can be attractive opportunities for job creation and economic growth. To finance these high-risk capital projects, a combination of conventional credits and favourable lending from multilateral development banks should be used to provide up-front capital. AIIB has added the objective of enabling new technologies to their corporate strategy, which can help support such projects.
19. There are many "shovel ready" projects in green technologies in Southeast Asia looking for financing. Interconnections between ASEAN countries need to be strengthened and creating favourable conditions for large-scale renewables development can then leverage the ample appetite among Chinese investors in solar PV in the region. Interconnections can help address power gap issues in southern China, Laos, Myanmar and other countries over the next decade. Key partners for the region such as ADB are considering policies for ending financing for new coal and can help with sustainable energy transition.
20. Currently, COVID stimulus in ASEAN only includes a very small slice for clean energy infrastructure. Positive steps include Vietnam extending its feed-in-tariff by two years and Malaysia's plans for a large-scale solar programme that will generate thousands of jobs. Vietnam's impressive growth in renewables is a success story, including the move from feed-in-tariffs to auctions, but the risks of over-building gas infrastructure will need to be addressed as well.

### **Recommendations for key stakeholders**

21. A green shift requires commitment from at least four key groups: Chinese institutions, host countries, global partner institutions, and diplomatic leaders.

#### **Chinese institutions**

22. At present, BRI deals between China and host governments are often led by SOEs with large projects requiring NDRC approval; these deals could benefit by having voices for greater sustainability involved. Project recommendations may sometimes be driven more by China's domestic supply side considerations for SOEs (which are more experienced in fossil-fuel related infrastructure), and less motivated by what would be most sustainable for the host country.
23. China has already signalled high-level political commitment to green the BRI in principle, though implementation remains a challenge. There are already initiatives such as:
  - BRI Low Carbon Cities;
  - tools like the China Green Finance Committee's calculator for environmental impacts and the Committee's innovative green finance products to lower the cost of renewables; and

- the green project investment database under the Green Investment Principles for the Belt and Road, which can help potential green BRI projects access global public sector and private sector capital.

24. Further measures that could have significant impact include the following.

- China could accelerate a low-carbon shift for BRI by funding smaller south-south cooperation projects (\$1-\$5million) for green investment. Instead of investing in fossil fuel infrastructure China can orient towards more investment in transmission and distribution upgrades that countries have put forward.
- China can share its expertise in innovative financial products such as sustainable bonds, green/ESG bonds, and crisis recovery facilities.
- As government funds are limited, including for China, Chinese companies can increase their engagement with multilateral development banks and financial institutions such as EBRD, ADB and AIIB to crowd in more capital for green projects.
- China could promote and contribute to more integrated solutions for energy infrastructures in the host countries, including grid infrastructure and capacity building that are choke points for the broader deployment of renewable energies.
- China can connect its own civil society organisations with those abroad through platforms for greater south-south cooperation.
- China can consider encouraging its companies, SOEs or private ones, to enhance environmental and climate considerations for project investments overseas, especially along the Belt and Road, e.g. through the “traffic light system” which is already under discussion.

#### **Countries in the Belt and Road Initiative**

25. To green the BRI, host countries must first articulate demand for more green investments. With host countries in need of financial resources, there is a tendency to accept BRI projects as proposed without sufficiently considering the long-term socioeconomic impacts, though there are exceptions. In some cases, host government leadership may opt for highly visible mega-projects for political benefit. But it cannot be assumed that the benefits of a mega-project will trickle down to most citizens, and in fact, some projects may lock in unnecessary government subsidies and sectoral inefficiencies.
26. Many countries are asking for disproportionately high levels of investment in coal. For example, in Bangladesh coal project power capacity will be 30 times higher than for planned renewables projects. Countries need to reassess energy demand needs in light of COVID and plan for a “net-zero” emissions future, then develop enabling conditions for the full suite of policy, regulatory, technical and institutional measures to scale up green investment.
27. Designing post COVID infrastructure requires integrated planning, such as new roads with electric vehicle infrastructure built in and railways and water systems using clean energy. Countries should increase collaboration on green investment with Chinese BRI- affiliated SOEs and private companies that are contractors, project developers, and financiers. A lesson from China’s own industrial development is that having green standards from the outset would have reduced severe water and air pollution.
28. It is necessary but political challenging to reform fossil fuel subsidies and to introduce carbon pricing. It will be important to find transition solutions for countries dependent on exporting fossil fuel deposits, to take into account worker transition, to diversity local economic models, and to determine how to have financing for energy transition that will not result in greenwashing.

29. Further measures that could have significant impact include the following.

- As suggested by several Wilton Park expert participants, their countries must address the conservatism in behaviour of relevant ministries and procurement officers. These stakeholders can benefit from learning about the rapidly changing energy landscape so they are less likely to prefer outdated fossil fuel infrastructure technologies that could pose long-term stranded asset risks or burdens for government budgets.
- Additional government guarantees for green, sustainable projects can put them on a more level playing field.
- A growing market for green investments and bonds can attract more private sector capital.
- One potential idea is to develop a green coalition of BRI nations, with a shared investment framework and higher environmental, climate and health standards. A green coalition could link regulators, utilities, financiers, project developers and others, standardising procurement policies. Many resources exist, but countries should improve information sharing via existing channels (ASEAN, Southeast Asia Energy Transition Partnership). Having Green BRI “pilot countries” will allow learning on how to scale green investment.
- Governments can support civil society organisations working with counterparts in China to discuss the benefits of a sustainable transition.
- BRI host countries need to deal with technologies pushed for political reasons that lack environmental, technical or financial viability like carbon capture and storage (CCS) or fossil fuel-based hydrogen, when there are cleaner alternatives such as renewables and renewable hydrogen. Development of common resources are needed to understand new technology claims and how to prevent false narratives that can derail successful energy transition to sustainable sources.
- More attention is needed for balancing technologies such as batteries and pumped hydropower storage. Even though high voltage direct current (HVDC) electricity transmission is harder to finance, it is essential to develop in order to avoid curtailment of future renewables deployment. Good public policy is needed to help provide guidance for upgrading transmission infrastructure.
- Countries can develop enabling conditions for sustainable energy, such as stable regulatory environments for renewables with clear operational guidance, mechanisms like PPAs, and strengthened conversations between regulators, investors and utilities. This may require reforming electricity pricing mechanisms, introducing subsidies for renewables and removing them for fossil fuels, and improving energy efficiency in residential and industrial buildings
- Governments should adopt a long-term net-zero goal to drive policy and finance across all parts of the economy as well as conduct more public awareness programmes on the benefits of renewables and of reducing pollution or smog.

#### **Partner institutions and regional cooperation**

30. Global institutions and partners can support sustainable recovery through these measures.

- Global institutions such as development banks, intergovernmental institutions and coalitions can encourage the formulation of stronger environmental and social governance standards around BRI projects – articulating the need for these policies with Chinese institutions such as NDRC, MOFCOM and SASAC, and with ministries in each BRI country.
- Institutions should encourage China to implement green investments with clear targets and timelines.

- Countries and partner institutions can support more rapid deployment of green projects by establishing a Green Guarantee Fund to reduce project risk costs, such as through participation in the Green Investment Principles for the Belt and Road, which has already brought together 37 global institutions with total assets of over 41 trillion USD.
- Institutions can support the development of green BRI pilot countries, facilitate dialogues and exchanges on standardisation of project development and procurement, help crowd in private finance, and provide blended financing as well as other options.
- Institutions can accelerate South-South peer-to-peer awareness raising and learning, investment, and development by promoting regional hubs of excellence.
- The private sector and multilateral financial institutions can engage more with Chinese companies that are leaders in renewable energy.
- MDBs could help bring initial capital support to finance higher risk clean project pilots, as well as financing development missions such as education, capacity building and awareness enhancement.

### **Diplomacy**

31. Sustainable infrastructure discussions should focus on the jobs and economic benefits of green stimulus. Any framing must be led by stakeholders from within the country and their understanding of how to drive green stimulus forward. Further measures that could have significant impact include the following.

- Diplomatic efforts should address basic information asymmetries, as not all BRI countries know the benefits from green investment. Diplomacy should encourage such discussion on sustainable investment.
- Institutions must identify the right public sector and private sector partners within China and link them to partners and capital elsewhere to push past existing barriers to renewables uptake in BRI countries.
- Diplomatic efforts should support the development of a Green BRI coalition among host countries and expand communication channels not only to high-level actors but also to regional and local policymakers versed in local political complexities.

### **Conclusion**

In a time of great economic disruption from COVID, countries will benefit by finding means of social and economic recovery that also address the profound long-term threat of climate change. BRI countries can create conditions to attract more public and private investment in clean energy and sustainable infrastructure.

Outreach to Chinese institutions should highlight the imperative to enhance environmental and climate considerations for all BRI investments. Global institutions and diplomats should facilitate this virtuous circle of increasing demand for clean energy, leading to a crowding-in of resources for these projects and thereby attracting more BRI institutions and global investors to accelerate the energy transition.

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