

Energy+

Private Sector Consultation

Guangzhou, China

October 18, 2012

Executive Summary

On behalf of the Energy+ initiative, Garten Rothkopf organized a private sector consultation in Guangzhou, China on October 18, 2012, the third of a global series, following events in Washington DC and Nairobi, Kenya. Over thirty high-level participants were in attendance – industry leaders and investors in China that are engaged in renewable energy and energy, including equipment manufacturers, project developers, energy service companies (ESCOs), financial services providers, and investment funds, among others. The participants contributed to a lively discussion of the challenges and opportunities associated with expanding energy access and low carbon development. Wireless polling devices were used throughout the day to gauge the opinions of the private sector on various topics pertaining to investment and project development opportunities.

The first session of the discussion focused on success stories and challenges of investing in renewable energy and energy efficiency projects in developing countries. The second session identified the most attractive conditions and incentives to engage the private sector. In the final session, participants offered suggestions that would allow Energy+ to unleash private sector activity. A broad range of incentives was discussed, with a similar emphasis as past consultations on the importance of standardized contracts, transparent and predictable policy environment, and assistance in marrying potential partners, among others. However, the Guangzhou consultation also produced a set of distinct proposals, including the establishment of free trade zones for renewable energy projects and incentives to address the unique challenges of energy efficiency.

Based on the half-day discussions, it is evident that there is a real opportunity for Energy+ to work with the public and private sectors in emerging economies such as China to achieve the goals of universal energy access and reduction of carbon emission, given the fact that they possess special understanding of developing countries and are in a good position to identify affordable and suitable technologies and models that can address the challenges encountered in expanding renewable energy access and increasing energy efficiency in developing countries.

Opening Remarks

Ambassador Ann Ollestad, Senior Advisor to the Energy+ initiative, opened the discussion with a brief overview of the broad goals of Energy+. She stressed that it is critical to engage the private sector in order to achieve universal energy access and she acknowledged that this global consultation series is a great opportunity for Energy+ to directly communicate with the private sector.

“It is clear that China has a critical role to play in helping to achieve universal energy access and reduce carbon emission.”

– Ambassador Ann Ollestad,
Senior Advisor to Energy+

Ambassador Ollestad underscored China’s dramatic achievements in universal domestic energy access, and its contribution to driving down manufacturing costs of renewables components worldwide. She emphasized that, given the leadership role of China in the global renewable energy and energy efficiency markets, the Guangzhou consultation aims to utilize the participants’ deep expertise to examine the tremendous commercial potential for the private sector that exists in the energy access

space. Following Ambassador Ollestad’s remarks, Jiwan Acharya, Senior Climate Change Specialist at the Asian Development Bank (ADB), delivered a presentation to introduce the design principles and approach of the Energy+ initiative.

Session 1: Success Stories and Challenges

Featured speakers Hugo DesRosiers of Symbior Energy, Victor Wang of Guangzhou Hongying Energy Technology, Yao Li of China-ASEAN Investment Cooperation Fund, and Xia Li of Aon Risk Solutions, kicked off the first session with success stories from and challenges experienced while investing in energy access and efficiency projects in developing countries, laying out a framework for the in-depth discussions in the first session.

Critical Barriers

Participants identified several of the biggest challenges faced by businesses and investors in energy access and efficiency projects. These include poor policy implementation, trade protectionism, and a lack of access to capital. Notably, particular concerns were expressed about the global growth of non-tariff barriers against renewables and their potential impact on the effort to promote renewables to achieve universal energy access.

- **Poor Policy Implementation:** While sensible policies are in place in many developing countries, participants emphasized the poor implementation of these policies as a major challenge. For example in China, as noted by Peng Wang of Guangdong Energy Conservation Association, “although the central government provides subsidies, such as tax-refunds, the policy implementation can’t be followed strictly at local levels.” Similar challenges could exist in other developing countries, due to a range of factors, including the absence of management capacity in governments, a lack of enforcement,

“Barriers from policy implementation are big obstacles. Although the central government provides subsidies, the policy implementation can’t be followed strictly at local levels.” – Peng Wang, Chief Technology Officer of Guangdong Energy Conservation Association

and corruption, among others. For example in Africa, Yao Li noted, one big challenge to the World Bank’s “Lighting Africa” program was that “the governments are not so organized to promote renewable energy projects”.

- **Trade Protectionism:** Growing global trade tension and protectionism were identified as major obstacles to achieving energy access in developing countries through the expansion of renewables. Specific trade barriers, such as import tariffs and countervailing duties on renewables products, can greatly reduce the cost competitiveness of renewables. Other non-tariff barriers, such as local content requirements, have also been observed in some developing countries. Justin Wu of Bloomberg New Energy Finance noted that “trade protectionism is happening in a more subtle way”. For example, he noted that, “in Brazil, which is considered a massive emerging market for renewable energy, the Brazil National Development Bank, or BNDES, recently implemented a rule on local contents for wind turbines; companies have to meet certain local contents requirements for wind turbine installation in Brazil in order to get finance from the BNDES”. This could affect exporters of wind turbines to Brazil, since most project developers in Brazil are receiving financing from the BNDES.
- **Lack of Access to Capital:** As in previous consultations, lack of access to capital was identified as a critical hurdle to the success of energy access and efficiency projects in developing countries. Due to factors such as high early-stage development costs and non-payment risks, renewables project developers often struggle to meet the financiers’ strict requirements, and investors are typically unwilling to risk the amount of funding at appropriate terms and costs required for these energy access projects to succeed. A lack of scale for renewables projects, as noted by Andrew Leung, also contributes to a high cost of financing and a lack of funding. Participants from the energy efficiency industry, including Peng Wang and Dominic Yin of Hong Kong Association of Energy Service Companies, remarked that ESCOs also struggle to secure financing. Xia Li pointed out that risks inherent to energy efficiency projects, including credit default risks, performance risks, and a lack of baseline and performance data, make it difficult for ESCOs to obtain loans from commercial banks.

Key Components of Success

Participants also discussed a number of factors that are critical to the success of energy access and efficiency projects in developing countries. Strong political will and robust government support stood out as one of the most important components of success, likely explained by the fact that the development of renewables and energy efficiency and the increase of energy access in China are driven by the government. Participants also identified long-term sustainable incentive systems, adapting business models to local conditions and needs, and targeting markets where renewables possess evident cost advantages as factors that are important to success.

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– Andrew Kinloch, Managing Director of Logie Group Limited

- **Strong Political Will and Robust Government Support:** The presence of strong political will to increase energy access through renewables was identified as a critical factor for renewables projects to compete with power generation by traditional energy sources such as coal. Andrew Kinloch of Logie Group

Limited remarked “Renewable energy has to struggle against the fact that coal is still the cheapest way of generating electricity. Thus it’s important to secure governments’ support to invest in renewable energy technology.” This corresponded to the polling results, which indicated that 79% of participants believed support by national governments is the most important factor to ensure the success of renewables projects, compared with the DC and Nairobi group results at 55% and 38% respectively. Specifically, government support through the development of supporting infrastructure and policies and the matching of interested parties on projects could greatly contribute to project success, as noted by Andrew Leung, an independent consultant for renewable energy, and Bruce Li of Mingyang Wind Power.

- Long-term Sustainable Incentive System:** A long-term, sustainable incentive system was cited as critical to project success. Alan Schiffman of Skadden, Arps, Slate, Meagher & Flom LLP noted that ‘lightening laws’ such as feed-in tariffs and up-front grants are vulnerable to fiscal budget cuts and are a source of uncertainty for investment planning and project operations. Bruce Li provided an example where Mingyang Wind Power found itself struggling to execute and deliver a 120 MW wind power project in Europe due to an unexpected reduction of the feed-in tariff in the host country. In comparison, more sustainable policies, for example favorable tax and accounting rules such as accelerated depreciation, as noted by Alan Schiffman, contribute to stability and predictability of policy environment and thus help to unlock private investment.
- Targeting Markets where Renewables Possess Cost Competitiveness:** The markets where renewables possess evident cost competitiveness present the greatest opportunities for renewables manufacturers and project developers. Such markets are usually found in regions where connecting to grids is expensive due to distance and lack of supporting infrastructure, and in regions where a lack of fossil energy leads to heavy dependence on external sources, resulting in higher and more volatile fuel costs for power generation. As Justin Wu of Bloomberg New Energy Finance remarked, “there are a lot of opportunities for renewable energy in off-grids”. In addition, he noted, “countries away from gas, oil or any other natural resources, which face high fuel costs, represent opportunities for renewable energy, purely on economic basis, other than climate change or other incentives.” Andrew Kinloch echoed this sentiment with the examples of the Philippines and Indonesia, “who are never going to have national grids – [it’s] just not feasible,” and noted there are plenty of opportunities for renewables in these countries, because “you can get solar or wind energy, no matter how remote your location is from national grids.”

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- Local Engagement:** The generally nascent market for renewables in developing countries makes local engagement a critical component of success for expanding renewables to achieve universal energy access. Due to a lack of awareness of renewables technology, consumers in developing countries, particularly those in remote areas, tend to resort to grid-extension and diesel generators to increase energy access. These consumers also tend to have tight budgets

and be very price-sensitive. As a result, successful renewables and project developers manage to educate local communities about renewable energy options, adapt business models to local needs and conditions through product and technology innovation, and provide necessary training on how to operate and maintain renewables technologies. Victor Wang provided an example of Guangdong Hongying Energy Technology's entry into the market of the Solomon Islands, which possess rich wind resources but whose residents were not familiar with wind power generation. After observing the local mission schools invested in diesel generators, they figured that "it is easier to start with smaller scale systems, which is more affordable for the local people" and then innovated products based on the needs. Victor Wang and Bruce Li pointed out that local partnerships were critical to achieving this. The polling results indicated that 33% of participants thought local partners could best serve the roles of marketing and sales, as opposed to the roles of operations and maintenance (20%) and of construction (20%).

Keynote Speech

The keynote speech was delivered by Mr. Fengqi Zhou, Senior Advisor to and former Director General of the Energy Research Institute (ERI) of the National Development and Reform Commission (NDRC) of China. Mr. Zhou provided an overview of China's policy landscape for encouraging renewable energy, energy efficiency, and universal electricity access. He highlighted the Chinese policies that offer economic incentives to renewable energy and energy efficiency businesses, including investment subsidies, tax incentives, export rebates, public support, and investment in scientific research, among others. He stressed that government support and public participation is key to the success of universal energy access in developing countries.

Session 2: Direct and Indirect Incentives

Following the keynote, featured speakers Justin Wu of Bloomberg New Energy Finance, Bruce Li of Mingyang Wind Power, and Peng Wang of Guangdong Energy Conservation Association, opened the discussion by outlining the direct and indirect incentives that are important for making a market attractive to private investors. The participants identified four broad categories of incentives: access to information, free-trade zones, financing sources dedicated to renewables product exports and project contracts, and standardized MRV criteria and energy performance contracts for energy efficiency projects.

Access to Information

Access to information for investment and project planning was identified as a critical incentive for the private sector in developing countries. Andrew Kinloch, Dominic Yin, and Alan Schiffman stressed that access to information on the direction of policy and energy planning and on the procedures of policy implementation enables the private sector to better evaluate and control risks associated with potential investments in energy access projects. Without this information, private investors are reluctant to enter markets due to the uncertainty in investment returns.

As Alan Schiffman noted, "the private sector would only come in [the area of energy access] if the

"The private sector would only come in if the circumstances were appropriate... Some risks are appropriate for the private sector to take, like basic risks... but they don't want to take risks of unclear laws." – Alan Schiffman, Partner, Skadden, Arps, Slate, Meagher & Flom LLP

circumstances were appropriate” and are willing to take basic business risks, but “they don’t want to take risks of unclear laws”. Yao Li echoed that access to key information on regulatory and policy developments is an important factor for Chinese private companies to participate in infrastructure construction for energy access. In addition, Bruce Li pointed out that access to information on demand and supply sides of project financing, equipment procurement and technical service was also much valued by businesses and investors, as it contributes to efficiency of matching business partnerships and allocating resources for energy access projects.

Free Trade Zones

In anticipation of increasing international trade tension, participants suggested the establishment of free trade zones as an incentive to accelerate investment by manufacturers and developers of

“The Ogun-Guangdong Free Trade Zone in Nigeria has provided our company with opportunities to enter the energy market in Nigeria. We started with a 200-street-lights project in the zone, and it helped us expand into the local market.” – Victor Wang, Director of Operations, Guangdong Hongying Energy Technology

renewables in developing countries. A free trade zone could enable companies to bypass various trade barriers and thus ensure the cost competitiveness of renewables. In addition, as the renewable energy and energy efficiency industry evolves from simply selling products or services to providing an integrated package of solutions, proximity to potential local partners within the zones would enable product manufacturers, technology providers and project developers to form consortiums to compete for energy access contracts in the local markets. One example given by Victor Wang was the Ogun-Guangdong Free Trade Zone in

Nigeria, where Guangdong Hongying Technology, partnering with the local government and companies to build up a solar and wind hybrid street lighting system, has successfully entered the Nigerian market.

Financing Sources Dedicated to Renewables Product Exports and Project Contracts

As renewables and energy efficiency projects for energy access in developing countries are struggling to secure financing, participants identified financing sources dedicated to renewables product exports and project contracts as a potentially effective incentive for renewables product manufacturers and project developers to enter the relatively immature markets in developing countries. Specifically, EXIM banks and development banks can back renewables manufacturers and project developers by promising to provide loans to energy access projects that purchase products or equipment from the manufacturers or grant contracts to the project developers. Justin Wu noted that some Asian exporters of solar and wind equipment have been incentivized to explore emerging markets by such arrangements, as capital provided by investors and development banks of their home countries helps them to secure contracts in the target markets. China Development Bank, Japan Development Bank, and Korea Export and Import Bank were cited as early leaders offering this incentive arrangement.

Standardized MRV Criteria and Energy Performance Contracts for Energy Efficiency Projects

When disputes emerge between ESCOs and their clients over performance results of energy efficiency projects, ESCOs face great non-payment risks, which can threaten their fragile chain of cash flow. To combat this, Alan Schiffman and Dominic Yin identified standardized criteria for measurement, reporting, and verification (MRV) and standardized energy performance contracts as

potential tools that could help mitigate these risks and incentivize ESCOs to enter markets in developing countries. Alan Schiffman also suggested that some pilot projects, potentially led by multilateral partnerships such as Energy+, could be undertaken to identify standard technical metrics and execution procedures for MRV and develop sample templates for energy performance contracts.

Jiwan Acharya, Senior Climate Change Specialist at the ADB, concluded the second session with a presentation about the ADB's Energy For All partnership. He introduced the partnership's structure, project development facility, incubation support program, and ongoing activities.

Session 3: Role of Energy+

The final discussion session focused on how Energy+ can be most effective in accelerating private sector participation. Featured speakers Andrew Kinloch of Logie Group Limited, Wilson Guo of UPC Renewables China, and Alan Schiffman of Skadden, Arps, Slate, Meagher & Flom LLP, offered brief remarks to open the discussion on the role of Energy+. The suggestions offered by the speakers and other participants can be grouped into three broad areas: advocating for favorable policy environment, facilitating collaboration among stakeholders, and promoting industry standardization.

Participants stressed that Energy+ could play an important role in improving policy environments in developing countries in order to attract investors. Energy+ could:

- Advocate for a predictable policy environment with sustainable incentives, such as structuring subsidies in a way to engage equity investors, applying favorable tax and accounting rules, such as accelerated depreciation, and opening up areas that are previously dominated by state-owned enterprises to SMEs
- Advocate for a uniform framework of policy implementation at the national and local level
- Advocate for public-public and public-private arrangements of free-trade zones to help mitigate the impact of trade tensions on renewable energy products and enable collaboration between equipment exporters and local businesses

“Renewable energy is capital and technology intensive and at present we are facing economic downturn globally. Thus the question lying ahead is how to team up the stakeholders to provide cost-effective solutions... Energy+ should provide a platform for all stakeholders to fix the problems together.” – Bruce Li, Vice President of Mingyang Wind Power

Participants observed that an important role for Energy+ could be to connect stakeholders in the areas of energy access and efficiency and promote collaboration and information sharing among them:

- Energy+ could develop a registry with a function that matches financing, technical, and equipment needs with public and private resources
- Energy+ could develop a database of ESCOs with a proven track record and open the database to commercial banks, with the goal of facilitating loans to the ESCOs registered in the database
- Energy+ could develop an international network of experts representing various stakeholders to collaborate and address emerging political, economical, and technological challenges to increasing energy access through renewables and energy efficiency

Participants suggested that Energy+ could support the development of industry standardization for energy efficiency projects:

- Energy+ could advocate for MRV standards for ESCOs in developing countries and for an independent third-party body to certify ESCOs that meet required standards
- Energy+ could develop replicable financing models or standardized contracts for energy efficiency projects and promote them in developing countries

Closing Remarks

Ambassador Ollestad offered closing remarks to the half-day discussion, reiterating the importance of the consultations to communicating the goals and principles of Energy+ to the private sector as well as establishing partnerships and soliciting ideas. She stressed that it is critical to engage emerging economies, especially China, who are at the forefront of tackling this challenge, and open up dialogue between the private and public sectors to solve this challenge. Jiwan Acharya echoed Ambassador Ollestad's comments, remarking that it is key for the public and private sector to work together to achieve their objectives. The event concluded with an open invitation to all participants to continue this dialogue with the Energy+ organizers.

Facilitated by Garten Rothkopf and the Energy+ Technical Working Group