# ENERGY DIALOGUES SUMMARY

## WASHINGTON, DC EXECUTIVE SUMMARY

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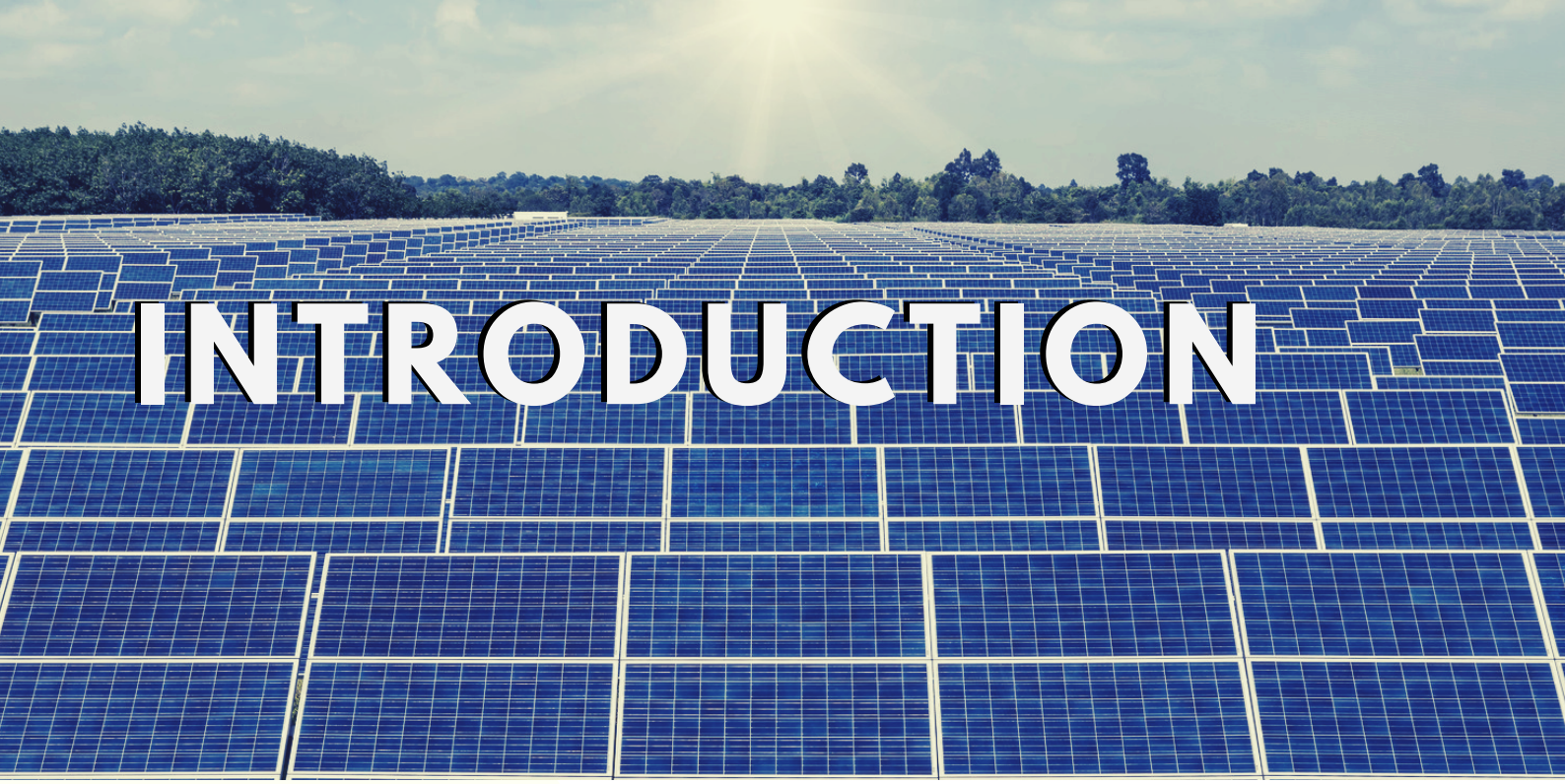

# INTRODUCTION

On May 15, 2019, Energy Dialogues and Johns Hopkins School of Advanced International Studies hosted representatives from government, industry, academia, and the non-profit sector to consider current energy issues, including how to move towards a lower-carbon energy future. This edition of the City Series, organized by Energy Dialogues, is designed to bring together experts from all stages of the energy value chain to connect and form partnerships through in-depth discussion of energy's role in the economy and the world at large.

This dialogue focused on trade talks and energy, the Green New Deal, solutions to eliminating energy poverty, and consumer behavior in a rapidly transforming energy landscape. The trade panel addressed the impact of ongoing trade tensions and negotiations, as well as economic sanctions, on U.S. energy exports. Under the Green New Deal theme, participants debated the role of the federal government versus the states and cities in the energy transition. The panel on energy poverty analyzed how to achieve universal energy access while limiting environmental impacts. The ability and willingness of consumers to respond to dynamic pricing and growing optionality in electricity use was the focus of the discussion of changing consumer behavior in a rapidly transforming energy landscape.

The themes of the dialogue were addressed through panel discussions and in roundtables where participants were organized into working groups. The City Series opened with a greeting by Ken Calder, Vice Dean for Faculty Affairs and International Research Cooperation of Johns Hopkins SAIS.

# Theme 1 - Trade

The Dialogues began with a panel discussion on trade and the potential impact of ongoing disputes, in particular with China, as well as the revised NAFTA (United States-Mexico-Canada Agreement, or USMCA) on U.S. energy exports. The increased use of U.S. economic sanctions and their impact on energy was also addressed. It was noted that the growing significance of energy exports to the United States is a new element to consider in U.S. trade negotiation strategy, something that was not a factor only a few years ago.

Panelists underlined the critical importance of energy trade to North America and the USMCA countries. Conclusion of the USMCA allows continued progress towards a fully integrated North American energy market. Mexico relies on U.S. natural gas imports for over 60 percent of its consumption now, while the Mexican market is critical for U.S. natural gas producers. Large cross-border investments in oil and gas as well as power generation resulted in the three countries agreeing to include continued coverage for those sectors under revised Investor State Dispute Settlement (ISDS) provisions in the USMCA. Under that agreement, ISDS rules will apply when an investor has a dispute regarding a contract with the government, although not with state-controlled companies as was the case under NAFTA.

Discussants pointed to the uncertainty surrounding tariffs as a potential challenge to U.S. LNG exports and new LNG projects going forward. The Trump Administration has been championing energy exports and their impact on reducing the U.S. trade deficit. However, China has retaliated against U.S. tariffs on Chinese goods by increasing its import duties on a variety of U.S. products, including LNG. As a result, U.S. LNG sales to the fast-growing Chinese market have plummeted. One participant argued that predatory Chinese trade practices needed to be addressed and while that might have a short-term impact on some U.S. economic interests, achieving a more balanced long-term economic relationship with China would benefit everyone, including the energy sector. The general view was that while trade tensions were of concern to U.S. energy exporters, it was too soon to judge the longer-term impact. Global LNG demand continues to grow strongly which will help U.S. exporters.

Participants discussed the evolving nature of the LNG market and when companies might be able to make the multi-billion investments in new LNG export terminals without firm sales contracts, similar to how the oil business operates. The contrast between the large international oil and gas corporations, who can finance projects off their balance sheets, and the smaller U.S. LNG players who still require long-term sales contracts to finance their facilities was mentioned. The role of the U.S. Export-Import Bank and of the Overseas Private Investment Corporation (OPIC – soon to become the U.S. International Development Finance Corporation) in developing infrastructure abroad to help the U.S. energy industry was raised.

The infrastructure needs of the LNG sector are significantly greater than for the oil trade, so it is likely to be some time, if ever, before the LNG market can be said to be truly similar to the oil market. This also applies to the U.S. natural gas market where Jones Act restrictions on use of U.S. vessels in U.S. waters and difficulties in receiving approvals for new pipelines in some states results in the anomaly of imports of LNG (including from Russia) to New England in the winter.

The impact of U.S. economic sanctions on global energy trade was debated. The sharp growth in U.S. oil production made it easier for the U.S. to impose sanctions on Venezuela to restrict its oil exports in support of political change there. The heavy use of U.S. sanctions, however, could lead others to seek work-arounds that weaken the role of the dollar in international trade. One panelist maintained that sanctions have proven to be a useful foreign policy tool and so long as there were no signs of real alternative payment systems on the horizon that diminished their effectiveness, sanctions would continue to be used by the U.S. government in a robust manner.

# Theme 2 - The Green New Deal

Examination of the Green New Deal (GND) occurred in roundtable discussions. There was no agreed definition of the GND which remains a work in progress. Most saw it as a framework meant to address climate change and perhaps other broader societal issues, some commented that it is very unrealistic. Most participants thought the real action on climate change and the energy transition is at the state and local level (e.g., renewable portfolio standards), but that discussion of a GND could promote collaboration among lawmakers, corporations and other groups in support of the energy transition and realistic solutions. The pledges of many companies to source more (or in some cases all) of their energy from renewables was seen as an important stimulant to the market, something that is happening regardless of any GND.

Some participants thought the most important role for the federal government is to promote energy innovation through tax, regulatory and other policies. Others noted that only at the national level can the United States ensure a stable, well-functioning energy grid able to accommodate more intermittent energy sources. Several participants viewed a set of national climate goals as important, including adoption of a carbon tax or another pricing mechanism to promote a cleaner energy mix. A few people commented that of equal or greater importance than a U.S. GND is to work with fast-growing emerging economies like China and India to help them reduce emissions. China's emissions are almost twice those of the United States and still increasing, while India's emissions are projected to grow faster than those of any other large economy.

Participants expressed a variety of views regarding the role of natural gas in a GND future. Some argued that with the cost of renewables and batteries declining so rapidly that gas will be increasingly squeezed out of the power sector, others contended that only gas can provide necessary back-up support for renewables for the foreseeable future. Several noted that carbon capture technology and deployment will be critical if gas is to play an important role in the future.

# Theme 3 - Global Energy Access and Eradicating Energy Poverty

Discussion in this panel centered on how to build on the progress achieved to date in reducing the global population without access to modern energy services, in particular electricity, to below one billion people (according to the International Energy Agency), while addressing the climate change challenge. Most of those still without basic electricity live in Sub-Saharan Africa. Panelists underlined the importance of addressing energy poverty, including the lack of clean cooking which may effect 2.8 billion people, for human health and development.

Challenges to providing electricity access include lack of capacity in governments and utilities in affected countries, insufficient or unavailable data to identify least-cost feasible solutions, and regulatory structures that do not attract private sector investment. According to one panelist, too much of available funding from international development institutions and donors is spent on power generation and not enough is devoted to grid expansion, mini-grid and off-grid solutions. All parts of the system need to be aligned to gain energy access as quickly as possible. The sharp drop in the cost of solar panels increasingly make home solar solutions the most efficient way to expand energy access in remote areas. Markets and technology should guide what makes the most sense in different situations.

There was a general view that all fuels are needed to boost electrification rates quickly. Coal, natural gas and renewables all have roles to play since countries have different needs and resources. To balance climate concerns, countries should focus on energy efficiency, especially demand management to reduce peak loads. LNG can also help by substituting for coal. One panelist argued that eliminating a particular fuel from the mix only delays progress by making the choice of options less efficient and potentially reducing affordability and reliability. Natural gas has many uses and should be allowed to find its proper role in a country's energy mix.

Regulatory harmonization across countries would increase scale to attract private sector investment in the power sector. The Economic Community of West African States (ECOWAS) is an example of how this could work more broadly. Political commitment, often difficult, is a requirement but the payoff could be enormous.

# Theme 4- Changing Consumer Patterns

How consumer behaviors are likely to impact the energy transformation was the central question addressed in this roundtable discussion. The increasing number of "prosumers" who both produce and consume electricity is boosting the share of renewable energy in the grid, but at the same time is complicating operations for utilities. There was a general view that utilities have mostly been slow to find new business models to adapt to these changes.

Consumers often are not able to make informed decisions regarding their energy use due to lack of information. Some argued that most consumers do not pay attention to their cost of power, although an app or other technology might help generate a response to price signals. One participant in this field noted that as customers become more aware of demand response opportunities and time-of-day pricing that they will shift their electricity use to take advantage of lower prices. New technologies are coming to market that rely on machine learning to optimize how consumers use energy during the day. Decreasing the effort that consumers need to make, and to automate the decision-making process, can generate efficiencies and reduce costs (including for utilities) although this could raise data privacy concerns. There was not agreement as to whether consumers are willing to pay more for renewable energy, most studies seem to indicate a limited willingness to pay higher prices for renewable electricity.

Corporate sustainability as a business imperative generated a lively discussion. The investment community and other stakeholders are demanding more information from corporations about climate and sustainability risks, although there are not guidelines for how to report this (and many businesses do not want a standard). Most participants believed the pressure for more reporting on sustainability risks will grow, and corporations are increasingly including objectives of this kind in their corporate planning. Some are even including specific sustainability goals in the job responsibilities of senior company officials.