Deep Dive Workshop

Friday, 21 June 2019, 9:00 a.m. – 5:30 p.m.
Auditorium D

Utility-Scale Renewables: Challenges in Developing Solar and Wind Energy Projects

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Background

As the investment cost of renewables continues to fall, and utility-scale solar and wind become increasingly cost-competitive with conventional power generation, private developers, policymakers, and power system planners are searching for opportunities to invest in and promote renewable energy-based generation. Yet the rate of deployment of capital and the rate of installation of renewable energy capacity is far lower than needed to achieve the ambitious national targets set by countries through their participation in the Paris Climate Agreement.

This Deep Dive Workshop (DDW) will focus on challenges in the development of utility-scale wind energy and solar PV projects through a deep examination of the range of challenges faced by project developers, investors, and governments—the key stakeholders that need to work together in order to unleash a revolution in renewable energy.

The workshop is organized by the United States Agency for International Development (USAID), the Private Financing Advisory Network (PFAN), ADB's Environmental Thematic Group, and the U.S. Department of Energy's National Renewable Energy Laboratory (NREL), USAID's Clean Power Asia program, and the Association of Southeast Asian Nations (ASEAN) Centre for Energy (ACE).

Objective

This DDW aims to improve understanding of the real, on-the-ground challenges faced by project developers and their investors/bankers, with a focus on utility-scale wind energy and solar PV projects. It will achieve this objective by a mix of presentation on tools and resources; panel discussions with three main stakeholder groups (project developers, investors/bankers, and governments/utilities); and detailed, "deep dive" case studies of a sample of wind and solar energy projects

DDW Approach:

The DDW will be divided into three parts: (1) Setting the scene: Opportunities and barriers updated costs for renewable energy; (2) Stakeholder perspectives; and (3) Deep-dive case studies.

Part 1: Setting the scene: Opportunities and barriers updated costs for renewable energy

A critical gap to identifying opportunities and scaling up renewable energy is the lack of quality data and analyses to support decisions on the investment and deployment of renewables. The workshop will present first-of-their-kind results of a spatial levelized costs of energy (LCOE) analysis across the ASEAN and launch the Cost of Energy Mapping Tool within the ASEAN Renewable Energy Data Explorer (RE Data Explorer), which provides renewable energy data, analytical tools, and technical assistance to developers, policymakers, and decision makers in the region. Part 1 will also include presentation of a recent survey of private sector stakeholders on barriers to clean energy investment in emerging markets and an interactive poll of audience members.

Part 2: Stakeholder perspectives

Part 2 will set the stage for the afternoon discussions through two 45-minute panel discussions highlighting the perspectives, challenges, and lessons offered by four groups of stakeholders: (a) project developers; (b) investors and lenders (c) government and utilities; and (d) international donor agencies supporting renewable energy development in Asia.

Part 3: Case studies

Part 3 will consist of two parallel tracks: one for wind energy projects and one for solar PV projects. Each track will consist of a curated set of three case studies, demonstrating particular aspects of project development, financing, and implementation, including the range of issues from environmental assessment, community engagement, land procurement, PPA development, securing of investment, effective project implementation, and eventual exit of initial investors.

Workshop Agenda			
Time	Section	Content	Speakers
9:00 – 9:15	**Opening remarks, Learning Objectives, and Agenda Overview**		**MC:** Jennifer Leisch, Climate Change Mitigation Specialist, USAID
PART 1: SETTING THE SCENE: OPPORTUNITIES AND BARRIERS FOR RENEWABLE ENERGY			
9:15 – 10:00	**What are the costs and barriers to investment in grid-connected wind and solar generation in the ASEAN region?**	• Results from recent analysis of costs (LCOE) and geospatial location of energy resources, for planning and investment in Southeast Asia. ○ Informing analyses with the ASEAN RE Data Explorer and the Cost of Energy Mapping Tool • Despite abundant renewable resources, barriers to private sector investment in utility scale wind and solar PV persist. • Present analysis results and how this fits in larger context of opportunities and challenges	Nathan Lee, NREL
10:00 – 10:30	**Barriers and opportunities to private sector investment: an interactive activity on private sector investment opportunities and results of a recent survey**	• What are the major challenges and obstacles faced by wind and solar project developers, investors and lenders? • How can countries in the region address these challenges in order to facilitate development of utility-scale wind and solar projects and can countries address these challenges and open up investment opportunities? • What innovative approaches are the panelists using or seeing that could support the scale up of renewables in the region? • Discussion	Carishma Gokhale-Welch, NREL
10:30-11:00	**Tea/Coffee Break**		
PART 2: STAKEHOLDER PERSPECTIVES: PRACTITIONER VOICES			
11:00 – 11:45	**Panel Discussion with**	Panel to directly address questions: • What are the major challenges and	**Moderator:** Peter Storey, PFAN

	Project Developers, Investors, and Lenders *Facilitator: PFAN*	obstacles faced by wind and solar project developers, investors and lenders? • How can countries in the region address these challenges in order to facilitate development of utility-scale wind and solar projects and can countries address these challenges and open up investment opportunities? • What innovative approaches are the panelists using or seeing that could support the scale up of renewables in the region?	**Panellists:** **Iñaki Perez,** Asia Practice Lead -Solar, Mott Macdonald **Gary Zieff,** Deloitte **Eunjoo Park-Minc,** BDO Others tbc
11:45 – 12:30	**Panel Discussion with Government, Utility and Donor Representatives** *Facilitator: USAID Clean Power Asia*	• What are the major challenges and obstacles faced by government and utility representatives in attracting investment in the renewable energy? • How can countries in the region open investment opportunities and address these challenges? • What innovative approaches are the panelists using or seeing that could support the scale up of renewables in the region?	**Moderator:** Dana Kenney, USAID **Panellists:** **Emma Marsden,** ADB **Camilla Fenning,** UK FCO Others tbc
12:30 – 2:00	**Lunch break**		
PART 3: WIND AND SOLAR ENERGY "DEEP DIVE" CASE STUDIES			**MC:** Mark Lister, Asia Clean Energy Partners
2:00-3:30	**Case Study 1**	Wind	Government of Bangladesh
	Case Study 2	Solar	PFAN
	Case study 3	Wind	Birdlife International
3:30-4:00	**Tea/Coffee Break**		
4:00-4:30	**Case study 4**	Solar	ADB
	Case study 5	Wind	PFAN
5:00-5:30	**Wrap-up** **Closing remarks**	Summary of presentations, lessons learned and recommendations on innovative or good practices to support project development that could be leveraged across Asia – wrap up and feedback from the audience	

About the Organizers

The United States Agency for International Development (USAID) - USAID is the lead U.S. Government agency that works to end extreme global poverty and enable resilient, democratic societies to realize their potential. USAID's work safeguards this mission and puts countries on a path to pursue clean energy growth and resilient, low-carbon development. Countries around the world are feeling the effects of climate change, from more intense heat waves, droughts, floods and storms to slower-moving changes like ocean acidification. USAID is sharing world-class knowledge, data and tools to ensure countries can predict, prepare for and adapt to change. USAID also helps countries lay the foundations for sustainable growth powered by clean energy and healthy landscapes. https://www.usaid.gov/

The Private Financing Advisory Network (PFAN) - PFAN is a global network of climate and clean energy financing experts, that aims to bridge the gap between entrepreneurs developing climate and clean energy projects and private sector investors. PFAN achieves this by providing free business coaching to projects, increasing the chances of attracting investment; and growing its investor outreach. PFAN coordinates in 14 Asian countries in the region to support the origination of clean energy projects, typically in the range of 1-50 million U.S. Dollars, but sometimes up to as high as $100 million. https://pfan.net

USAID's Clean Power Asia program (USAID Clean Power Asia) - Implemented by Abt Associates, the USAID Clean Power Asia program works with Lower Mekong countries and other Association of Southeast Asian Nations (ASEAN) member states to encourage power sector investments in environmentally friendly, grid-connected renewable energy sources. The program focuses on incorporating renewable energy into planning, promoting smart incentives, building an enabling environment for renewable energy policies and frameworks and mobilizing finance. http://usaidcleanpowerasia.aseanenergy.org/

The U.S. Department of Energy's National Renewable Energy Laboratory (NREL) - NREL focuses on creative answers to today's energy challenges. From breakthroughs in fundamental science to new clean technologies to integrated energy systems that power our lives, NREL researchers are transforming the way the world uses energy. NREL analysis informs policy and investment decisions as energy-efficient and renewable energy technologies advance from concept to commercial application to market penetration. With objective, technology-neutral analysis, NREL aims to increase the understanding of energy policies, markets, resources, technologies, and infrastructure and connections between these and economic, environmental, and security priorities. https://www.nrel.gov/