



Proceedings

Roundtable on Effective Regulation for Clean Energy in Southeast Asia

Asian Development Bank, 10 June 2016

Overview

On the morning of Friday 10 June 2016, during the week of the Asia Clean Energy Forum (ACEF) at the Asian Development Bank (ADB) headquarters, ADB's Office of the General Counsel (OGC) and the United States Agency for International Development (USAID) hosted a roundtable discussion with regulators from the Association of Southeast Asian Nations (ASEAN), including representatives from Cambodia, Lao PDR, Malaysia, Philippines, Thailand and Viet Nam. This roundtable was designed to build on a recently concluded ADB study of regulatory effectiveness in the power and water sectors in the region. The main objective of this roundtable was for the participating regulators to discuss the impediments they encounter in the conduct of their regulatory functions, and the major regulatory issues they encounter related to clean energy.

During the roundtable, the regulators presented their legal and regulatory frameworks in support of clean energy, and shared the challenges they face in guiding development of a sustainable power sector. The roundtable discussion aimed to identify common issues faced by regulators in the ASEAN region, particularly in light of the recent COP21 climate agreement and the imperative to promote dramatic increases in energy efficiency (EE) and renewable energy (RE) to achieve their national climate targets¹. After the delegates made their presentations, they were asked to brainstorm about the direction future regulatory reform initiatives might take related to clean energy. At the end of the session, USAID also introduced a new regional program it is launching later this year called *USAID Clean Power Asia*. The program will focus on improved energy planning, including integration of RE targets into national plans and development of RE zones; improved regulation and smart incentives; and mobilization of finance for grid-connected renewable energy. The roundtable provided a forum for a regional dialogue and cooperation on regulatory issues, and will hopefully serve as a catalyst for further engagement going forward.

¹ In the Paris Agreement, the national targets are called nationally determined contributions, or NDCs.



Introduction and Opening Remarks

Atsuko Hirose, Advisor, Office of the General Counsel, ADB, opened the roundtable and provided welcoming remarks. Ms. Hirose described OGC's Law and Policy Reform Program, which actively assists ADB developing member countries (or DMCs) in strengthening their policy, legal, and regulatory systems. The objective is to fill legal and policy gaps to support the DMCs' trajectory towards sustainable development. Ms. Hirose provided background information on a long-term technical assistance project OGC carried out under the Law and Policy Reform Program, which looked into the history of regulatory reform and the state of regulatory effectiveness in the energy and water sectors of ASEAN countries. She also announced that the Synthesis Report, the knowledge product resulting from the project, will be published later in 2016. According to Ms. Hirose, the purpose of the roundtable was two-fold: (i) to follow up on the study that was carried out, and (ii) to bring the regulatory agencies together to discuss the challenges they encounter in their respective countries, particularly in the context of clean energy and the global push towards renewables. This roundtable is timely as it is right after the COP21 talks in Paris. ADB OGC looks forward to having spirited and fruitful discussions from this roundtable and building potential avenues for collaboration.

Dr. Peter du Pont, Climate Change Team Lead, USAID Regional Development Mission for Asia (RDMA) and Co-Chair, Asia Clean Energy Forum 2016, introduced USAID and its support for clean energy and climate activities across the Asia region. He provided some historical background about the three annual Asia-Pacific Dialogues on Clean Energy Policy, Governance, and Regulation that ADB and USAID jointly organized during ACEF week between 2010 and 2012. Dr. du Pont noted that in the past few years, there have been fewer occasions to bring regulators in the region together to talk with their peers to discuss solutions for meeting very ambitious clean energy targets. He stated that one key to achieving these targets is to have effective regulations that are nimble and can keep up with rapid developments in technology.



Atsuko Hirose and Peter du Pont (left) providing opening remarks at the roundtable.

Presentations from Regulatory Delegates

After these opening remarks, the regulatory delegates from each country at the roundtable made brief presentations on their regulatory activities and the challenges they face in guiding the scale-up of clean energy in their respective countries.

Cambodia

Hul Kunnak Vuth, Vice-Chairman, the Electricity Authority of Cambodia (EAC)

Mr. Vuth outlined the key responsibilities of EAC as the regulator for the electricity sector. He stated that the Electricity Law calls for tariffs to be approved by EAC and to provide licensees with an opportunity to recover their reasonable costs and financial returns. In Cambodia, Electricité du Cambodge (EDC) is the only government-owned licensee, and the rest of the sector includes 300 private sector licensees. EDC purchases electricity from generation licensees through power purchase agreements that EAC must approve. At the moment, the Government of Cambodia does not have policies that provide financial support to incentivize generation and use of RE, and EAC has not developed specific regulations that promote renewable or other forms of clean energy. However, Mr. Vuth noted that there are hydropower plants planned and under construction, and mentioned that the Government of Cambodia has invited bids for setting up a 10MW solar power plant.



Lao People's Democratic Republic

Santisouk Phimpachanh, Director of the Power System Planning Division, Department of Energy Policy and Planning, Ministry of Energy and Mines (MEM), Lao People's Democratic Republic

Ms. Phimpachanh stated that MEM's target is to increase the national electrification rate to 98% by 2030. It also aims to develop its 26,000 MW of hydropower potential based on the principles of competitiveness, sustainability, and efficiency. MEM will promote power integration by harmonizing and strengthening the national power grid. Ms. Phimpachanh then presented data on electricity imports and exports: in 2015, Lao PDR exported 11,542 GWh of electricity and consumed 4,239 GWh domestically. She then presented information on other RE projects in Lao PDR, with details on solar and wind energy potential, and specifically on planned wind projects in the southern part of Lao PDR.

After presenting energy sector information for Lao PDR, Ms. Phimpachanh discussed the national RE policy. The Government of Lao PDR will try to increase the share of alternative energy up to 30% of the total energy consumption by 2025. She provided statistical information on the Power Development Plan for Lao PDR, highlighting that by the year 2020, the country will have 11,121 MW of installed generating capacity and an annual energy output of 56,058 GWh.

Following the discussion on energy policies and planning in Lao PDR, Ms. Phimpachanh provided details on power trading activities that the Government of Lao PDR is engaged with in the Greater Mekong Subregion (GMS). Lao PDR plans to export more than 15,000 MW to its neighbors by 2030 to promote the integration of GMS and the North ASEAN Power Grid. There are already power connections between Lao PDR and its four neighboring countries (Thailand, China, Viet Nam, and Cambodia). The top priority for Lao PDR in its national energy policy is to develop all available hydropower potential, in order to stimulate regional power integration and trade, and to optimize the energy mix within the ASEAN Community.

Malaysia

C.F. Leong, Director of ICT and e-FIT System, Sustainable Energy Development Authority (SEDA), Malaysia

Mr. Leong introduced SEDA, which is a unique type of energy organization within ASEAN. It is a semi-independent organization established in 2011, and charged by the government with guiding sustainable energy development in Malaysia. Mr. Leong presented the RE Development Plan for Malaysia, which includes the present energy mix and future targets to be achieved under the 11th Malaysia Plan (2016-2020). He then highlighted this policy statement in the National Renewable Energy Policy & Action Plan: "Enhancing the utilization of indigenous RE resources to contribute towards national electricity supply security and sustainable socio-economic development." Mr. Leong then gave an overview of the five strategic thrusts of the Malaysia's National RE Policy.



Mr. Leong described the regulatory framework established under the Sustainable Energy Development Authority Act and the role that SEDA Malaysia has within the framework. He also discussed other pieces of primary legislation underpinning the regulatory framework, including the RE Act of 2011 and its subsidiary laws. Several subsidiary laws were introduced due to the rush from the public to participate in the features of the RE Act of 2011. Mr. Leong then outlined Malaysia's Feed-in-Tariff (FiT) mechanism, a small fund that provides standard prices and purchase agreements for biogas, biomass, small hydro, solar, and geothermal. He described SEDA's delegate portal, the features of the eFiT system, and how FiT applications are processed and approved. Due to the popularity and strong response to the eFiT system, SEDA had to establish a real time quota system. In 2016 and the future, there will be a system for quota allocation and balloting for solar photovoltaics (PV). Mr. Leong closed his presentation with an overview of other sustainable energy programs at SEDA, such as EE programs and capacity building and training activities in RE and EE.

At the end of the presentation, Dr. du Pont noted that Mr. Leong plays various roles within SEDA, including setting regulations and managing activities. The e-Fit system is state of the art and has generated a lot of interest from countries across ASEAN and the broader region, according to Dr. du Pont. Mr. Leong said that power distribution companies have to pay a 1.6% fee that goes into the fund. Mr. Leong was asked how the FiT rate is determined, and he confirmed that the rate declines each year and is based on the levelized cost of electricity (LCOE) for each RE resource.

Thailand

Borwornpong Sunipasa, Planning and Policy Analyst, Bureau of Energy Efficiency Promotion, Department of Alternative Energy Development and Efficiency (DEDE), Ministry of Energy, Thailand

Mr. Sunipasa introduced DEDE, which is not Thailand's primary energy sector regulator, but is responsible for many aspects of energy promotion and regulation and also for the licensing of certain small-scale power plants. DEDE does establish minimum energy performance standards for energy-using equipment, and also sets standards and guidelines for performance of renewable energy technologies. Mr. Sunipasa gave an overview of Thailand's energy situation with statistics on energy consumption by sector and some of the plans that will be guiding the energy and power sector in 2016 and beyond, such as the New Energy Efficiency Plan 2015-2036.

Mr. Sunipasa presented the policy, legal, and regulatory framework governing EE and RE in Thailand. A foundational law is the 1992 Energy Conservation and Promotion Act (which established an Energy Conservation Promotion Fund), which works in conjunction with other ministerial regulations such as the 2009 Building Energy Code and 2009 High Energy Efficiency Standard for Equipment and Machinery. Mr. Sunipasa provided details on technical requirements of each of these energy conservation regulations, such as the Building Energy Code and the categorization of different types of buildings. He concluded with a summary of Thailand's framework for EE standards and labeling, which includes



minimum energy performance standards and high energy performance standards for electrical appliances and energy-using equipment.

Viet Nam

Nguyen Quang Minh, Deputy Director, Planning and Demand Supply Balance Monitoring Department, Electricity Regulatory Agency of Viet Nam

Mr. Minh provided an overview of Viet Nam’s power sector, with details on installed generating capacity as of 2015, and the country’s energy mix. He presented the RE policy framework, focusing on the Electricity Law of 2004 and 2012 and the Power Development Plan 2011 – 2020 (Master Plan VII), which was approved by the Viet Nam Prime Minister. He included a listing of many specific decisions and circulars that govern specific types of RE such as wind, biomass, hydropower, and waste to energy. In terms of the current policy framework on RE, Mr. Minh stated that the current feed-in-tariff ranges from 5.8 to 14 US Cents/kWh for waste biomass, wind, and solar energy, with Electricity Vietnam (EVN) required to purchase all electricity generated. He provided statistical information on RE potential in Viet Nam, specifically for wind power, biomass, and cogeneration, and solar energy, between 2020 and 2030.

Mr. Minh then presented Viet Nam’s Smart Grid Development Roadmap, which started in November 2012 with three separate phases that are expected to be completed by 2023. The general goals in the plan include improvements in power supply quality and reliability, and also increased integration of RE into the power network.

Mr. Minh described a number of issues and challenges that Viet Nam faces with regard to scaling up RE. Two key issues are the current legal framework and the need for institutional development. Planning is not synchronized across different government institutions, and there is a lack of a focal national body with a strong control function. Furthermore, other regulations currently do not encourage investors to develop RE projects in Viet Nam. Challenges in the areas of economics and finance include high costs for electricity generated by RE resources. The situation is aggravated by the fact that the RE tariff is not based on economic cost. As a result, for example, the current FiT for wind is not suitable. Mr. Minh also stated that there is limited capacity and experience among investors in management and construction monitoring for RE projects. Out-of-date data (hydrology, topography, geology, etc.) has led to inaccurate planning and insufficient management, inspection, and monitoring of registered projects. Mr. Minh concluded by saying that Viet Nam requires financial and technical support from international organizations and developed countries to promote effective development of its RE sector.



Philippines

Sharon Ocampo Montañer, Chief Planning Officer & Senior Member of Renewable Energy-Technical Working Group, Energy Regulatory Commission (ERC), Philippines

Ms. Montañer said that the Philippines has a long history of strengthening its regulatory framework for the electricity sector, and has now become a model for other countries in Southeast Asia. Ms. Montañer provided an overview of current incentives for RE, such as feed-in-tariffs and net metering. She then focused her presentation on the feed-in-tariff (FiT) in the Philippines, describing the FiT resolutions issued by the ERC in 2010 and 2012. The tariff is technology-specific and is based on the cost of a representative project, and is subject to degression and adjustments over time. ERC is responsible for approving the FiT rates. Ms. Montañer then showed a table with installation targets for run-of-river hydropower, solar, wind, and biomass, with the FiT rate for each RE resource. She mentioned that the Philippines' FiT is unique in the region in that it is based on a first-come, first-served basis, and that the FiT agreement is not provided upfront. She provided details on the rules for net metering in the Philippines and also for cash incentives for off-grid RE.

Presentation on ADB's Case Studies on Regulatory Effectiveness in the Electricity Sector of ASEAN Countries

Bill Gallery, Clean Energy Consultant, Nexant

Mr. Gallery presented the findings from a set of ADB case studies on regulatory effectiveness in the electricity sectors of countries in the ASEAN region (Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand, and Viet Nam). Mr. Gallery qualified that ground-level data gathering for the case studies, which formed the basis of the Synthesis Report, was done in 2010-2014. While every effort was made to ensure that the Synthesis Report reflect an accurate picture of ASEAN regulation, it is possible that some information might have been superseded by recent changes in regulations in each country. He welcomed the delegates to provide updated information. The presentation highlighted three high-level results from the ADB case studies:

1. Many countries in the region have reasonably good regulatory frameworks in principle, although these frameworks could still be improved
2. Enforcement or implementation of regulations has been challenging or has yet to happen
3. Question on policy versus regulation

Mr. Gallery explained that many countries in the ASEAN region have reasonably good regulatory frameworks governing the electricity sectors, although these frameworks could still be improved by strengthening autonomy and ring-fencing the regulatory agency from the policymakers. However, the ability to enforce and implement regulations in practice has been a significant issue. One example cited



involved regulations governing tariffs in each country's electricity sector. The idea of cost-recovery tariffs is standard within utilities, and appears in foundational policy, legislative, and regulatory instruments across the ASEAN region. In practice, however, fewer than 50% of utilities can recover their actual costs—sometimes for political reasons.

Mr. Gallery also described the importance of regulatory transparency. Nonetheless, he underscored that while a regulatory framework mandating transparency is ideal, the absence of a legal duty to be transparent should not deter regulatory agencies from being transparent in practice. For instance, Singapore and Malaysia do not have regulatory requirements to be transparent, yet they make relevant data and information on the power sector publicly available.

Mr. Gallery further emphasized that investors respond to incentives, and noted that this can easily be seen with RE. It has been shown that in the case of Thailand and the Philippines, when clear incentives are provided for RE projects, and when the regulatory and licensing requirements are clear, companies will and do respond. In some cases, as has been the case with Thailand, the response is overwhelming, and the RE tariff will have to be reduced.

Mr. Gallery also discussed the issue of policy versus regulation, and the question of which tool has been more effective in driving reform in the electricity sector of ASEAN countries. Most of the achievements on EE on the *supply side* have been made due to policies, typically through mandates to improve efficiency, and not necessarily through regulation. Yet regulation can have a role in implementing EE reforms, as in the Philippines and Malaysia where pricing and tariff schemes have been established to encourage utilities to meet efficiency targets. On the energy demand side, policies have been effective at increasing EE, such as consumer education, appliance and equipment labelling, and minimum energy performance standards. Thailand has had significant success using the Energy Conservation Promotion Fund to establish low-cost financing incentives. Dr. du Pont noted that through its demand side management (DSM) programs, Thailand has avoided the need to build 9 traditional power plants (approximately 4,500 MW of generating capacity) since it initiated its DSM programs in 1994. These achievements were due to policies and laws (e.g., the Energy Conservation Promotion Act and Fund), not due to a regulatory mandate.

Mr. Gallery closed the presentation by posing a question to the roundtable participants: whether it is better to establish a new agency or group responsible for clean energy regulation (e.g., Thailand, where SEDA is in charge of renewable energy), or whether this should be done within the main agency responsible for all other regulatory decisions, as specified under the existing regulatory framework (e.g., the Philippines, where all sector regulation is centralized in the Energy Regulatory Commission).

Mr. Leong stated that Malaysia has an Energy Commission, which handles all energy issues and deals with standards and regulations related to energy and electrification. However, he noted that while SEDA's main responsibility is to cover RE, SEDA also has initiated some EE activities.



Mr. Sunipasa of Thailand's DEDE stated that there is not a single agency that is in charge of sustainable energy in Thailand. Dr. du Pont of USAID asked, "Would it be helpful to have a single nodal agency overseeing sustainable energy, or is it working OK the way it is now?" Mr. Sunipasa explained that DEDE has two parts within the organization, EE and RE, and that there are some challenges with having separate departments with limited cooperation. When DEDE implements measures, the organization needs to work together and integrate the plans. If there are two separate departments in DEDE, it is hard to work together. Thus, having a single agency would be more effective.

Discussions with the Regulatory Delegates

Questions to the Delegates from Roundtable Moderators

Dr. Peter du Pont from USAID kicked off an open discussion with two questions.

Question 1: "In your regulatory work and plans, currently, what is the role of your country's climate targets (for the nationally determined contributions or NDCs)?"

Mr. Vuth from Cambodia stated that EAC simply follows the strategy or plans from the Government of Cambodia. Therefore, the Ministry of Mines and Energy will decide on the direction for the NDCs in Cambodia.

Ms. Phimphachanh from Lao PDR stated that the Ministry of Energy and Mines has considered the NDC target of 7% and that the target is already included in the Ministry's plans.

Mr. Sunipasa from Thailand responded that the Ministry of Energy is only focused on energy. The plans for achieving NDCs would need to come from the Ministry of Natural Resources and Environment, since this agency is the nodal agency on climate and focuses on matters related to greenhouse gas (GHG) emissions.

Mr. Minh from Viet Nam explained that under the Ministry of Industry and Trade (MOIT), the General Directorate has to develop a power master plan along with RE strategies. Viet Nam has specific targets to achieve in the medium and long term, and therefore the Government of Viet Nam needs to develop a specific program to meet those targets.

Ms. Montañer from the Philippines stated that this work is led by the country's Climate Change Commission. The Commission is leading work related to NDCs, and the Energy Regulatory Commission (ERC) coordinates very closely with the Department of Energy, the energy policy-making body in the Philippines, which gives policy direction. ERC continues to regulate in terms of quality and price of electricity. For RE, it is assumed that the NDC targets will be submitted to ERC by the Department of Energy, and that these will be included in the overall energy development plan.



Mr. Leong from Malaysia explained that the COP21 targets are under the responsibility of Malaysia's Ministry of Natural Resources and Environment. Similar to Thailand, there are many government agencies involved in the design and implementation of clean energy programs, but the environment ministry is in charge of matters related to the NDCs targets. If the government ministries could work in a truly integrated and unified fashion, then NDCs could be implemented more effectively.

Question 2: "What do you need in terms of regulations to help you do your job better?"

Mr. Vuth from Cambodia expressed the desire for his regulatory agency to work more closely with government line ministries. He stated that RE projects are starting to become connected to the grid, but the share of electricity produced from renewables is still quite small due to issues with costs and incentives. EAC currently does not have a mandate to promote RE and is only in charge of issuing the tariff.

Ms. Phimpachanh from Lao PDR expressed a desire for technical support in designing regulations governing RE. There are several ministries in Lao PDR that have a role in drafting decrees and policies, such as the Ministry of Energy and Mines. There is an Energy Management Department that takes care of standards and labelling and helps promote RE and prepare regulation along with power system planning. Dr. du Pont recommended that it would be helpful for Lao PDR to learn from Thailand and Vietnam about setting up regulations and carrying out power system planning for grid-connected RE. Ms. Phimpachanh agreed and stated that it would be useful to exchange information between and among these three countries and carry out a comparative study.

Mr. Sunipasa from Thailand expressed that support could be provided to help connect the country's different ministries to each other. There are many different ministries and other organizations that work on energy issues, but greater cooperation is needed to avoid miscommunication and implement reforms more effectively. This is best observed with the Number 5 energy label, which is implemented by the Electricity Generating Authority of Thailand, but the GHG emissions requirements are set by another agency. Greater information sharing and coordination between the ministries in Thailand would be most helpful.

Mr. Minh from Viet Nam said that there are challenges that need to be overcome with respect to the legal and financial framework for supporting clean energy projects. Viet Nam also has limited technical knowledge regarding RE implementation, and this will be a problem to be addressed as the Government of Viet Nam initiates plans to support increased investment in RE technologies and businesses. He said that Vietnam would benefit from technical assistance to develop and finalize specific policies governing RE tariffs and technology development. He said there also is a need for technical support for more specific topics such as grid codes and operation and integration of RE into the power system. Mr. Minh discussed Viet Nam's planned implementation of a wholesale electricity market, but would like some



support on setting up market mechanisms and controls. Dr. du Pont recommended that Viet Nam could learn from the ERC and its experiences in the Philippines.

Ms. Montañer from the Philippines stated that they have encountered problems with a surge of RE into the grid on some islands, and have had to produce regulatory amendments to address this issue. Right now ERC is studying options for doing a reverse auction for RE capacity, and the Department of Energy will put out a policy, but ERC does not know the exact details. Once the auction method is implemented, the plan will be to phase out feed-in-tariff. There are also concerns with how ERC will explain the change in tariff to the public.

Mr. Leong from Malaysia said that there is need for RE guidelines, and that there are some loopholes that need to be addressed. SEDA is encountering resistance from the utilities in Malaysia, an issue that needs to be resolved. Other technical support needed is in monitoring of energy, as well as the development of geothermal sources for RE.

Questions and Comments from the Audience

Members of the audience were offered a chance to ask questions or make comments on the discussions that took place at the roundtable.

Aurelia Micko, Deputy Director, Regional Environment Office, USAID Regional Development Mission for Asia, asked the delegates about regulatory exchanges and discussions between the different countries in ASEAN. She asked whether there are informal networks of regulators, and whether regulators from each of the countries are helping each other. **Ms. Phimpachanh** from Lao PDR said that Lao PDR officials (policymakers as well as regulators) have had meetings and conferences with senior officers since 2014 and up until today. **Ms. Montañer** from the Philippines said that there is an ASEAN Energy Regulators' Network where these energy regulatory discussions take place. **Dr. du Pont** added that this organization is organized by the ERC of Thailand and occurs once a year.

Lily Gutierrez from USAID Philippines asked the Viet Nam regulator how it plans to design regulations for implementing smart grids. **Mr. Minh** from Viet Nam explained that the Government of Viet Nam approved a smart grid program and has identified targets to be achieved, such as improving the electrical infrastructure system. He added that the focus of Phase 2 for the smart grid program is to develop regulations and incentives to encourage the customer and utilities to participate in the smart grid. Mr. Minh expressed a need for support from international organizations and groups such as ADB and USAID to see how Viet Nam can push smart grids into the power system. Specifically, the Government of Viet Nam would like to learn how smart grid investment could be recovered through the tariff charged by the utility.



Sarah Fairhurst, a Founding Partner of The Lantau Group, said that one of the biggest issues that will affect the rest of Asia is how the regulatory structure is established and how the introduction of RE is carried out in the context of a private wholesale market. She added that in other countries, issues with pricing arise when there is a large load of RE into the wholesale market. The Philippines would be a best-in-class example to use for countries that do not even have a market. Ms. Fairhurst then emphasized that regulations and markets must work together. RE integration is a key area to focus on, particularly with regard to planning and designing the market in the future.

USAID’s Upcoming Clean Power Asia Program

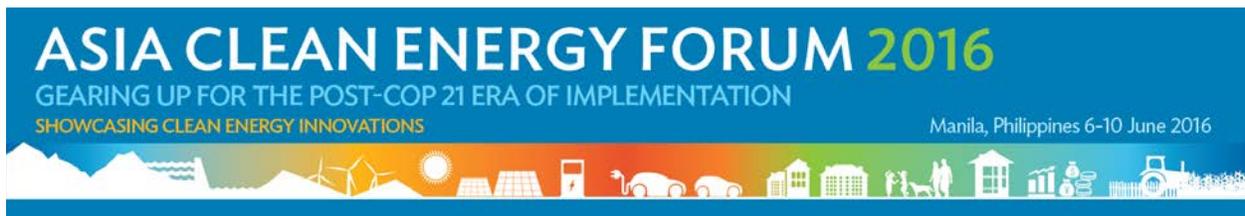
Dr. Peter du Pont introduced a new regional program USAID is launching later this year called **USAID Clean Power Asia**. This technical assistance program will work with countries in the Mekong and ASEAN regions to get RE integrated into the grid in a cost effective manner and contribute to grid stability. The US\$16.5 million program will last for five years with goals to mobilize US\$750 million in RE investment, achieve 500+ MW of RE installed capacity, reduce GHG emissions, and help ASEAN countries achieve their INDC targets. USAID is very open to working with other donors in order to not duplicate work. Key technical areas to be addressed through USAID’s Clean Power Asia program include:

- Power Sector planning and integration of RE targets
- Improving the enabling environment for RE scale-up
- Development of RE zones and understanding where it is most beneficial to install RE in the power transmission system in the different countries
- Smarter regulations and incentives
- Mobilizing private and public sector investment in RE

Clean Power Asia will have events at ACEF in future years, since ACEF is a great platform for bringing together multiple sets of stakeholders and sharing knowledge and experience. Dr. du Pont said that this roundtable session with regulators has provided an excellent forum for a regional dialogue and cooperation on regulatory issues, and will hopefully serve as a catalyst for further engagement by ADB and USAID with regulators in the region going forward.

Closing Remarks

Ms. Atsuko Hirose of ADB thanked all the regulatory delegates for their valuable contributions to the discussions at the roundtable, and indicated that ADB remains committed to support effective policy and regulatory frameworks that can facilitate (rather than block) the scale-up of clean energy investment in the Asia region.



Regulatory delegates from ASEAN countries and other participants at the roundtable. Left to right:
Piya Kerdlap, Nexant; Sharon Ocampo Montañer, Energy Regulatory Commission, Philippines;
Sithisakdi Apichatthanapath, USAID; ACEF delegate from Thailand; Borwornpong Sunipasa, Ministry of
Energy, Thailand; Santisouk Phimpachanh, Ministry of Energy and Mines (MEM), Lao People’s
Democratic Republic; Atsuko Hirose, ADB, Ma. Celeste Grace A. Saniel-Gois, ADB; Dr. Peter du Pont,
USAID; Hul Kunnak Vuth, Electricity Authority of Cambodia; Nguyen Quang Minh, Electricity
Regulatory Agency of Viet Nam; C.F. Leong, Sustainable Energy Development Authority (SEDA),
Malaysia; Bill Gallery, ADB Consultant