



Regional Workshop on

Overcoming Critical Bottlenecks to Accelerate Renewable Energy Deployment in ASEAN+6 Countries

Date: June 14-15, 2016

Venue: Rama Gardens Hotel, Bangkok, Thailand

Organised by the International Renewable Energy Agency (IRENA) and the Asian and Pacific Centre for Transfer of Technology (APCTT) of the United Nations Economic and Social Commission for Asia and the Pacific

In Partnership with the Thailand Institute of Scientific and Technological Research (TISTR), Ministry of Science and Technology (MOST), Royal Thai Government

June 14, Part A: Opportunities and Challenges in Biomass Conversion Technology

June 15, Part B: Enabling Policy and Financing Frameworks for Accelerating Renewable Energy Deployment

Part A: Opportunities and Challenges in Biomass Conversion Technology

June 14, 2016

BACKGROUND

Biomass is one of the principal sources of energy in ASEAN member countries accounting for 40% of total energy consumption in the region, with Indonesia, Malaysia, Philippines, Thailand and Vietnam as leading countries. Biomass energy, especially wood, continue to dominate in domestic activities such as heating, and cooking and in many traditional industries; nevertheless, there is a need to modernize the use of biomass for the energy purpose. Enhancing regional collaboration through sharing of knowledge, experiences, best practices and technologies related to biomass energy would help leverage the maximum potential in a sustainable and inclusive manner. Biomass energy can be sustainable, environmental-friendly and economically viable if the appropriate technologies and strategies are used. Biomass energy also has the potential to create significant employment opportunities in the course of both biomass production and consumption.

As an initial step towards identifying the needs of member countries, Asian and Pacific Centre for Transfer of Technology (APCTT) of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), and International Renewable Energy Agency (IRENA) jointly organized an Expert Group Meeting on Renewable Energy Resource Assessment for Countries in the Asia-Pacific Region on 25-26 September 2014 in Bangkok, Thailand. One of the significant outcomes of the meeting was the collective request from many ASEAN member countries, especially, Thailand, Indonesia and Cambodia for strengthening cross-border cooperation on biomass / biofuel related research and technology transfer. In support of the outcome, in order to make an effective platform for ASEAN + 6 countries (China, India, Japan, Republic of Korea, Australia and New Zealand) to share experiences, challenges and best practices, APCTT and IRENA jointly held the Biomass Open Research Forum on Biomass Resource Assessment for ASEAN+6 Countries on 9-10 July 2015 in Bangkok, Thailand, hosted by the Royal Thai Government. The Forum also provided recommendations for the work programme for ASEAN Network for Biomass Open Research (ANBOR), an initiative of Thailand to promote cooperation among ASEAN countries on biomass research which was subsequently endorsed by the ASEAN Secretariat under ASEAN Biofuel Flagship Programme.

This capacity building event on opportunities and challenges in biomass conversion technology hosted by the Ministry of Science and Technology (MOST) of Royal Thai Government will provide an effective platform for ASEAN + 6 countries for knowledge sharing on technical aspects that are critical for accelerating biomass energy deployment in the region. The event will also explore how regional and international platforms such as the Asian and Pacific Energy Forum of ESCAP, Sustainable Energy for All (SE4All) of the United Nations and IRENA's Clean Energy Corridor initiative in the ASEAN region could be effectively used for promoting renewable power deployment in ASEAN + 6 countries.

OBJECTIVES

- To provide a platform for knowledge sharing on biomass conversion technology, with a focus on current global trends as well as country experiences, opportunities and challenge in biomass conversion technology

EXPECTED OUTPUTS/OUTCOMES

- Enhanced knowledge on biomass conversion technology
- Increased awareness on best practices from regional and global perspectives
- Identification of entry points for cross-border collaboration among ASEAN+6 countries on bioenergy technology development and transfer and enhanced regional network among key stakeholders in the region

TARGET PARTICIPANTS

- Government officials, research scientists, private sector representatives, technology intermediaries and other relevant stakeholders in ASEAN +6 countries involved in the promotion of biomass energy technologies.

AGENDA

June 14, 2016

Bangkok, Thailand

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| 09:00 – 09:10 | Welcome and Overview – APCTT and IRENA Official opening remarks; Scope, Coverage, Objectives and Expected outcomes of the Workshops |
| 09:10 – 09:20 | Opening Address – Governor of Thailand Institute of Scientific and Technological Research |
| 09:20 – 09:30 | Group Photo |
| 09:30 – 12:25 | Session I: Biomass conversion technology for transport (Facilitator: Dr. Krishnan S. Raghavan, Coordinator, Technology Transfer, United Nations APCTT-ESCAP) |
| 09:30 – 09:45 | Global trends in the application of biomass as transportation fuel – Dr. Krishnan S. Raghavan, APCTT |
| 09:45 – 10:00 | Feasible trends toward higher BDF-diesel mix ratio in Thailand (DEDE or representative) |
| 10:00 – 10:15 | <i>Coffee break and Networking</i> |
| 10:15 – 11:30 | Country experiences from ASEAN member countries (15min for each) <ul style="list-style-type: none">○ Thailand: Mr.Sanin Triyanond, Chairman of Thai Biodiesel Producer Association and Director of Patum Vegetable Oil Co.Ltd.○ Indonesia: DR. Sudjoko Harsono Adi, Director of Bioenergy, Directorate General of New, Renewable Energy & Energy Conservation, Ministry of Energy & Mineral Resources of the Republic of Indonesia○ Malaysia: Dr. Loh Soh Kheang, Head of Energy and Environment Unit, Malaysian Palm Oil Board, Ministry of Plantation Industries and Commodities, Malaysia○ Philippines: Ms. Ruby B. de Guzman, OIC-Chief, Department of Energy, Biomass Energy Management Division○ Vietnam: Ms. Nguyen Phuong Mai, Deputy Director, International Cooperation Department, General Directorate of Energy, Ministry of Industry and Trade○ Q&A |
| 11:30 – 12:30 | Presentation by International experts (20min for each) <ul style="list-style-type: none">○ Dr Kinya Sakanishi, Deputy Director General, Fukushima Renewable Energy Institute, AIST(FREA), Japan○ Prof. Sobri Takriff, Manager of Chair for Sustainable Development, Universiti Kebangsaan, Malaysia○ Q&A |
| 12:30 – 13:45 | <i>Lunch</i> |
| 13:45 – 17:00 | Session II: Biomass conversion technology for combined heat and power (Facilitator: IRENA) |
| 13:45 – 14:00 | Global trends in the application of biomass conversion technology for combined heat and power (IRENA) |

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| 14:00 – 14:15 | Technical constraints on Biomass gasification : Critical bottleneck for the survival of VSPPs in Thailand – Dr.Wirachai Soontornrangson, TISTR |
| 14:15 – 15:30 | Country experiences from ASEAN member countries (15min for each) <ul style="list-style-type: none"> ○ Thailand: Mr.Somchai Lertwisettheerakul, Deputy Chairman, IEC Business Partner Co. Ltd. ○ Indonesia: Dr. Iryan Permana Dharma, Head of Bioenergy Cooperation, Ministry of Energy and Mineral Resources of the Republic of Indonesia ○ Lao PDR: Mr. Syvang Xayyavong, Deputy Head of Renewable Energy Development Division, Ministry of Energy and Mines, Institute of Renewable Energy Promotion ○ Malaysia: Dr. Loh Soh Kheang, Head of Energy and Environment Unit, Malaysian Palm Oil Board, Ministry of Plantation Industries and Commodities, Malaysia ○ Philippines: Ms. Ruby B. de Guzman, OIC-Chief, Department of Energy, Biomass Energy Management Division ○ Q&A |
| 15:30 – 15:45 | <i>Coffee break and Networking</i> |
| 15:45 – 17:00 | Presentation by International experts (20min for each) <ul style="list-style-type: none"> ○ Dr. Kavya Dashora, Deputy Director, CABI South Asia ○ Prof. Abdul Salam, Associate Professor and Theme Leader, Energy Field of Study, Asian Institute of Technology, Thailand ○ Dr. Tsuyoshi Suzuki, New Energy and Industrial Technology Development Organization (NEDO), Japan ○ Q&A |
| 17:00 – 17:15 | Summary – Moderated by APCTT and IRENA |
| 17:15 – 17:30 | Closing Remarks |
| 18:00 – 20:00 | Welcome dinner |

Part B: Enabling Policy and Financing Frameworks for Accelerating Renewable Power Deployment

June 15, 2016

BACKGROUND

ASEAN countries have shown growing will to transition to a more secure and sustainable energy future as most countries in the region have set targets for renewable energy deployment. Yet energy plans and policies vary by country, reflecting the region's wide variety of economic profiles, energy resource endowments and needs, levels of energy access, and institutional, technical and human resource capacities. In order to meet those targets, countries need to adopt a variety of policy mechanisms to promote renewable energy deployment, facilitate investment in the sector, provide the necessary skills and build a local industry for renewable energy.

In support of Southeast Asian market integration through the development of the ASEAN Power Grid and the achievement of the ASEAN renewable energy targets of achieving 23% of renewables by 2025, IRENA is strengthening its engagement with Southeast Asian governments and regional stakeholders to promote increased penetration of renewable energy technologies in the region.

As part of this effort, IRENA and APCTT are jointly organizing the regional workshop addressing aspects related to strengthening enabling policy, regulatory and institutional frameworks as well as financing of renewable energy investments that are critical for accelerating renewable power deployment. The event will be hosted by the Ministry of Science and Technology (MOST), Royal Thai Government.

OBJECTIVES

- To provide a platform for sharing knowledge, country experiences and best practices in renewable energy policy and financing

EXPECTED OUTPUTS/OUTCOMES

- Improved knowledge on renewable energy policy and finance
- Increased awareness on best practices from the region and across the globe

TARGET PARTICIPANTS

- Government officials and regional stakeholders from ASEAN countries

AGENDA

June 15, 2016

Bangkok, Thailand

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| 09:00 – 09:15 | Opening remarks – APCTT and IRENA |
| 09:15 – 10:45 | Session I: Renewable energy drivers and opportunities, global and regional <ul style="list-style-type: none">- Overview of drivers for renewable energy deployment- Targeted interventions- Renewable energy resources, capacities and targets- Open discussion |
| 10:45 – 11:00 | <i>Coffee break</i> |
| 11:00 – 12:30 | Session II: Enabling environment: policy and regulatory frameworks <ul style="list-style-type: none">- Overview of policies to support renewable energy deployment globally- Overview of policies to support renewable energy deployment across the ASEAN- Targeted interventions- Open discussion |
| 12:30 – 14:00 | <i>Lunch</i> |
| 14:00-15:15 | Session III: Enabling environment: Financing – trends, challenges and opportunities <ul style="list-style-type: none">- Overview of the current situation and trends of renewable energy financing in the ASEAN- Risks and barriers of renewable energy investments and financing- Panel discussion |
| 15:15 – 15:30 | <i>Coffee break</i> |
| 15:30 – 16:30 | Session IV: Facilitating renewable energy project development and financing: IRENA's tools and approaches <ul style="list-style-type: none">- Presentation of the Sustainable Energy Marketplace and Project Navigator- Online demo of the Sustainable Energy Marketplace- Targeted interventions- Open discussion |
| 16:30- 17:00 | Session V: Socio-economic benefits of renewable energy deployment <ul style="list-style-type: none">- Measuring the economics- Renewable energy jobs- Decentralised solutions |
| 17:00 – 17:15 | Workshop evaluation |
| 17:15 – 17:20 | Closing remarks |