

# ASEAN-RESP

## Renewable Energy Support Programme for ASEAN

Sharing know-how, experience and information on ASEAN Renewable Energy development within the region and worldwide

A quarterly newsletter brought to you by Renewable Energy Support Programme for ASEAN (ASEAN-RESP)

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### Editor's Note

#### Dear Renewable Energy Community and Readers,

Welcome to the 25th issue of the ASEAN Renewable Energy (RE) Newsletter! The Renewable Energy Support Programme for ASEAN (ASEAN-RESP), a joint cooperation between ASEAN Centre for Energy (ACE) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ), has interesting news with the expansion of their cooperation starting this year. This issue shares the process of that new cooperation, which involves both ASEAN Renewable Energy Sub-sector Network (RE-SSN) and the Energy Efficiency Sub-sector Network (EE-SSN).

Moreover, this issue highlights RE-SSN's 23rd annual meeting in Iloilo City, the Philippines (4 – 8 April 2016). Hosted by the Philippines' Department of Energy (DOE) this year, the

5-day annual meeting known as ASEAN Renewable Energy Week or ASEAN RE Week, was organised in conjunction with workshops and seminars. Dialogue partners and international organisations (DPs/IOs) were invited to share knowledge and experience in the workshops and seminars; GIZ, Economic Research Institute for ASEAN and East Asia, and the United States Department of Energy were among them.

With this issue, we hope readers could get a better understanding of how RE-SSN promotes RE deployment in ASEAN in cooperation with DPs/IOs. One cooperation on ocean renewables with the Energy Research Institute @ Nanyang Technological University is also shared in a contributed article. We hope you find this Newsletter informative and enjoy reading it.

# ACE and GIZ expand their cooperation through the ASEAN - German Energy Programme

With the theme “Enhancing Energy Connectivity and Market Integration in ASEAN to achieve Energy Security, Accessibility, Affordability and Sustainability for all”, the ASEAN Plan of Action for Energy Cooperation (APAEC) 2016-2025 has set the target to reduce energy intensity by 20% in 2020 based on 2005 level, and to increase the ratio of renewable energy (RE) to 23% by 2025 in the whole ASEAN energy mix. To support the ASEAN Member States (AMS) in meeting the targets, ASEAN Centre for Energy (ACE) closely cooperates with the ASEAN Renewable Energy Sub-sector Network (RE-SSN) and Energy Efficiency and Conservation Sub-sector Network (EE&C-SSN).

Throughout the years, Germany has been supporting ACE on the implementation of the APAEC. The Renewable Energy Support Programme for ASEAN (ASEAN-RESP), a joint programme implemented by ACE and the German Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) has been active in those efforts since 2011, particularly in the RE sector as the Programme’s name implies. Some of the main outcomes of the ASEAN-RESP are: synergetic relationships with ACE; enhanced cooperation with RE-SSN focal points and Head of ASEAN Power Utilities/ Authorities (HAPUA) working groups through Regional Focus Group Discussions (FGD) to improve framework conditions for RE; knowledge-sharing platform on RE; Training of Trainers

for RE training institutions in the region; guidelines on RE technologies (e.g. bioenergy/biomass, solar photovoltaic, and micro hydropower); and the production of the 4th ASEAN Energy Outlook together with the ASEAN Regional Energy Policy and Planning Sub-sector Network (REPP-SSN).

Based on a pre-mission review in Cambodia, Lao PDR, Myanmar and Thailand to evaluate ASEAN-RESP, also based on the consultation workshop with RE-SSN and EE&C-SSN (April 2015), GIZ and ACE formulated a proposal to expand their cooperation into the energy efficiency sector. The cooperation, called the ASEAN-German Energy Programme (AGEP), aims to improve pre-conditions to implement measures for RE and EE&C in ASEAN at the regional level. To synergise German cooperation with ASEAN Member States (AMS) on RE and EE&C, the ASEAN-RESP in cooperation with Department of Energy Philippines (DoE) conducted an inception meeting for AGEP on 14 – 16 March 2016 in Manila, the Philippines. The meeting was participated by around 35 respective stakeholders, experts in RE and EE&C from governmental agencies, private sector, and research/ training institutions. The participants were officially welcome by Mr. Mario Marasigan, Assistant Secretary, Senior Officials on Energy (SOE) Leader for the Philippines, Department of Energy, and Mr. Christopher Zamora, ACE’s Manager for APAEC.

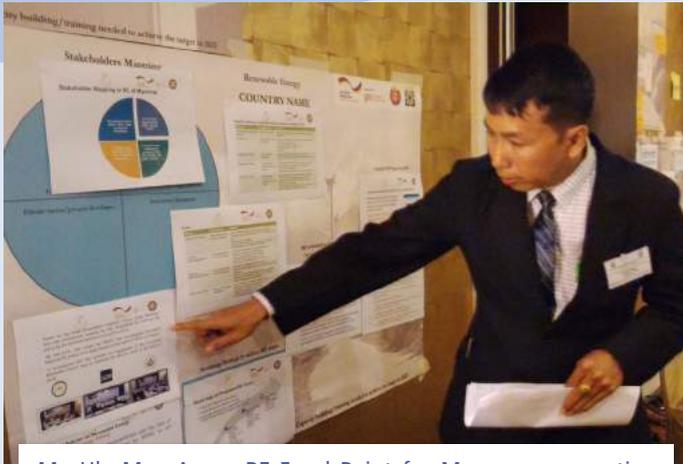


Indonesian Delegation for RE and EE&C during Information Market.

Credit: GIZ Indonesia/  
Intan Cinditiara

During this event, participants were actively involved in all activities designed by Denkmodell GmbH as facilitator. Participants were excitedly cooperating to create an information market which is a kind of mini exhibition where

countries' representatives displayed their related publications, and presented their respective country's current situation on RE and EE&C through posters.



Mr. Hla Myo Aung, RE Focal Point for Myanmar, presenting country's RE current situation during information market.  
Credit: GIZ Indonesia/Intan Cinditiara



Cambodian Delegation preparing their information market.  
Credit: GIZ Indonesia/Intan Cinditiara

Apart from that, the meeting also discussed AGEP's planning implementation on the 2<sup>nd</sup> and 3<sup>rd</sup> day. The results from the AGEP Inception Meeting are: to get stakeholders' engagement to support and implement AGEP, and to formulate more detailed programme and activities within AGEP.

The Programme also had the opportunity to be discussed twice during the course of the RE-SSN's annual meeting or ASEAN RE Week; on the 3<sup>rd</sup> and 4<sup>th</sup> day (6 & 7 April 2016). On the 3<sup>rd</sup> day, the consultation workshop aimed

to set priorities of the activities, by reviewing the detailed activities of AGEP, and seeking inputs on timeline execution when AGEP is effective. On the 4<sup>th</sup> day, Maria-José Poddey (ASEAN-RESP's Principal Advisor/GIZ) presented the results and plan to all participants to get further endorsement from the RE-SSN. Similar consultation workshop and presentation session were also done during the Energy Efficiency & Conservation Sub-sector Network's annual meeting in Myanmar (May 2016). Please look forward to more updates on the Programme.

### AGEP INCEPTION MEETING PARTICIPANTS' FEEDBACKS:

*"Workshops using different approaches such as Information Market concept are useful for participants"*

Mr. Wong Tin Song, Undersecretary, Sustainable Energy, Sustainable Energy Division, Ministry of Energy, Green Technology and Water (KeTTHA), Malaysia

*"Excellent meeting arrangement! This should be continued for further progress in ASEAN research & development in the future. The implementation of ASEAN-German Energy Programme is very important to all ASEAN Member States."*

Dr. Wongkot Wongsapai, Associate Professor, Chiang Mai University, Thailand

*"Time allotment to evaluation activities should be extended. So that there would be enough time to evaluate the activity and enough time to plan for next improvement."*

Mr. Jeffrey Andal, Science Research Specialist, Department of Energy, the Philippines

AGEP in ASEAN RE Week 2016, Iloilo, the Philippines, 6 & 7 April 2016:



Credit: Philippines DOE



Credit: ACE



Credit: Philippines DOE



Credit: ACE

# DESIGNING A TRAINING ON Renewable Energy Projects Development and Finance

In cooperation with the Renewables Academy (RENAC), the Renewable Energy Support Programme for ASEAN (ASEAN-RESP), organised another regional Training of Trainers (ToT) programme for RE Training Institutions (RETI) on 25-28 April 2016 in Manila, the Philippines. This is the third in the series, since the first in Selangor, Malaysia (November 2015) which focused on solar photovoltaic and the second in Bangkok, Thailand, (February 2016) which focused on RE policies.

This time the training was on “Financing RE Projects” and “Running RE Training Institutions”, and attended by 16 (sixteen) trainers from 8 (eight) ASEAN Member States (AMS). An important aspect that was explored in this training was

RE projects development from financial perspective (i.e: bankability). The participants also had the opportunity to do exercises on how to determine the project’s revenues and costs by using some financial ratios.

Participants liked that the training creates a network of professionals and possible future collaborations, but suggested for more practical cases to analyse and a site visit for more practical knowledge. Because participants have such good relations and a sense of teamwork after a series of 3 (three) ToTs, they asked for the possibility of an alumni evaluation training in the future. (LT)

Credit: ACE



Credit: GIZ Indonesia



Credit: GIZ Indonesia



Credit: GIZ Indonesia

# 15<sup>th</sup> Evaluation Meeting of the Board of Judges for **RE Project Awards of the ASEAN Energy Awards 2016**

Since 2005, the Renewable Energy Sub-sector Network's (RE-SSN) Annual Meeting includes the judging session of ASEAN Energy Awards' Board of Judges (BoJ) for RE projects. This year, the RE Awards BoJ and ASEAN Centre for Energy (ACE) received 23 entries or applications from Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar and Thailand. There are 6 (six) categories of entries: 1) off-grid – power; 2) off-grid – thermal; 3) on grid – national; 4) on grid – local; 5) cogeneration; 6) special submission. The evaluation session took one and a half day (4 – 5 April 2016), and resulted in 15 (fifteen) winners. The winners would be announced and receive the ASEAN Energy Awards during the week of the 34th ASEAN Ministers on Energy Meeting in Myanmar later this year.

Entries documents  
compilation.

Credit:  
Philippines DOE



Score tabulation  
with witnesses.

Credit: ACE



Timer for judging  
session.  
Credit: ACE

Board of Judges in  
the front seat with  
co-organisers.  
Credit: ACE



There were **7 (seven) ASEAN Member States (AMS)** represented in the last RE Awards BoJ session, and here are their impressions on the 15<sup>th</sup> RE projects evaluation meeting:

**BRUNEI DARUSSALAM (Mr. Abdul Matiin Kasim, Energy and Industry Department, Prime Minister's Office):**

"It is a great pleasure to be part of the BoJ representing Brunei in this year's RE Award. Even though this is my first time being a member of BOJ, personally, I feel that this year's contest is highly competitive as we can see from the large number of entries we received, as well as the small differences in the scores. I am totally impressed with all the entries and the judging system. Well done to the organisers and winners. I hope to see more submissions in the future".

**CAMBODIA (Dr. Bun Narith, New and Renewable Energy Department, Ministry of Mines and Energy):**

"It is my great pleasure to be a member of BoJ of this 2016 ASEAN RE Award. I hope to see more entries and more competitions in the future. Congratulations to all project developers and entities who win the Awards this year"

**LAO PDR (Mr. Syvang Xayyavong, Institute of Renewable Energy Promotion):**

"It is great to see more entries for ASEAN RE Awards 2016. I do hope to see more entries from all AMS in the near future. Congratulations to all winners, 1st runners-up and 2nd runners-up and thank you for participating this year."

**MALAYSIA (Ms. Azah Ahmad, Sustainable Energy Development Authority):**

"The participations to the 2016 ASEAN RE Awards was more encouraging this year and hope to see more in the future. This Award gives recognition to all efforts put forward in promoting renewable energy. Congratulations to all winners and ASEAN Centre for Energy for the well-coordination of this prestigious competition!"

**MYANMAR (Mr. Htun Naing Aung, Kaung Kyaw Say):**

"First of all, I would like to thank the host country, ACE and all Judges. I think this is the year with most judges attending the BoJ evaluation meeting since I had joined in 2012. Secondly, I want to commend all entries as they are participating in an important annual event that promotes RE not only to the AMS but also throughout the world. Last but not least, I would like to congratulate all winners and hope to join next BoJ sessions in the coming years."

**THE PHILIPPINES (Ms. Maris Cerezo, Renewable Energy Management Bureau, Department of Energy):**

"To me, the exercise was so inspiring especially now that we received more entries (23 as compared to 19 last year). The programme is a good platform to encourage RE project proponents to innovate further and discover optimal potentials of the resources. It is also a knowledge-sharing medium among all AMS. I hope as the BOJ explores to improve the process with ACE's assistance, more entries will come in the next rounds and with more diverse types of technologies."

**THAILAND (Mr. Yaowateera Achawangkul, Department of Alternative Energy Development and Efficiency):**

"This year's ASEAN RE Awards BoJ session allowed us to evaluate our process and find ways to improve it for the betterment of the competition. Together we learned from the past, and we move forward to promote RE in the region with the ASEAN RE Awards."

## Interview with the Philippines' SOE Leader, Assistant Secretary **Mr. Mario C. Marasigan**

This year's ASEAN RE Week was hosted by the Philippines' Department of Energy (DOE) in Iloilo City, Panay Island. As the person in charge of the event, Assistant Secretary Mr. Mario C. Marasigan (Director, Renewable Energy Management Bureau), the new Senior Officials on Energy (SOE) Leader for the Philippines, talked to ASEAN RE Newsletter about the RE Week and its significance to RE promotion in the region.



**Q:** What's the significance of RE Week to ASEAN Member States (AMS)?

**A:** RE Week is an avenue for AMS to communicate and share experiences and activities. It is also a significant activity to promote RE initiatives in each AMS, showing each AMS' contribution to RE in the region. Not only RE Week is promoting the causes, but it is also addressing growing energy demand. We discuss how RE can contribute within the framework of ASEAN cooperation.

**Q:** You mentioned in your welcome remarks that Iloilo is a hub for business, medical, etc. Has Iloilo become the Philippines' wind energy hub since you are taking us to a wind energy farm during our next site visit?

**A:** Wind energy development is in the east & west sides of Panay Island, where we are now. It is 54 MW on the east, and 36 MW on the west side. On the east side, the Island of Guimaras was known for mangos, but since the development of wind energy resources in Guimaras, the island has now become a tourist attraction. On the other hand, in the west—Boracay to be exact—tourism already bloomed since a long time ago. However nowadays, when you travel back from Boracay to the mainland, the first view you see is the 36 MW wind farm because it is on hilltop of the island so it attracts people to visit it. It takes only 30 minutes to go from there, making it a new tourist attraction. In that sense, with the existence of the wind farms, the west and the east are connected. The existence of the wind farms in Panay Island is also good for the social economy development of the area. As I mentioned, Guimaras was only noted for its mangos before. Now, the people are producing touristic products like t-shirts and souvenirs featuring the wind farm. They have alternative income from the tourism boost and this improves the people's economy in the area.

**Q:** Since this year the Philippines have not submitted any entry to the ASEAN RE Awards, what is the Philippines' plan in RE Awards' participation?

**A:** Most of RE project developers in the Philippines have been preoccupied with the actual projects development. So they had less time to present the projects in a way that would

be suitable for the ASEAN RE Awards submission. But now since we are almost concluding the first review of the Feed-in-Tariff (FiT) System, thus most of the developments have been completed, it is a good opportunity and momentum for the Philippines' RE project developers to promote what they have done by submitting projects entries to the ASEAN RE Awards. They have more time now to 'package' the projects to present in the RE Awards. For example, this wind energy development that turns into tourist attraction which improves the area's social economy would be a good example that shows we can now compete in the RE Awards. So please expect more entries from the Philippines next time.

**Q:** As the new SOE Leader, what is the Philippines' DOE's policy responses to the aspirational regional RE target of 23%?

**A:** We definitely support the 23% target. Our major policy mechanisms have already been issued (FiT System and Net Metering, and soon the issuance of the Rules and Guidelines for the Renewable Portfolio Standard and Green Energy Option), and our government is committed to promote RE developments. Our target is to maintain 30% minimum of RE contribution to the national power capacity mix. That is a big task for the Philippines' government to encourage the private sector's participation, by providing the necessary business environment that would be attractive to them like incentives in RE developments. Those incentives include fiscal incentives like income tax holiday, special realty tax rate (2.5% maximum), special income tax rate (10% maximum), and duty free imports (or refund of equivalent taxes). The non-fiscal incentives include RE portfolio standards, FiT system, net metering programme, and green energy option. Green energy option is a mechanism that allows consumers to buy electricity directly from RE generators. For RE, if you are consuming a minimum of 100 KW, you can buy directly from generators.

The Philippines' government is committed to support RE within the ASEAN. We want to set good examples in the cause, but we believe other AMS are also getting stronger in this collective effort.

# SITE VISIT: 54 MW San Lorenzo Wind Farm

On the last day of the RE Week (8 April 2016), the Philippines' Department of Energy (DOE) invited participants to visit a wind farm in the island of Guimaras, east of Panay Island. The 54-MW wind farm, named after the municipality it is located, San Lorenzo, is developed by the company Trans-Asia Renewable Energy Corporation (TAREC).

The project was commissioned in 2013, and is registered with the United Nations Framework Convention on Climate Change in November 26, 2012 as a Clean Development Mechanism (CDM) Project.

Participants from the Renewable Energy Sub-sector Network, ASEAN-RESP, ASEAN Centre for Energy, ASEAN Secretariat, the United States' Department of Energy, and Electricity of Vietnam took a 15-minute boat ride to Guimaras. The wind farm is located on the higher landscape of the island, so the delegation continued with cars once arrived in the island's port. With its 27 (twenty seven) turbines of 2 MW each spread across the hilly landscape, the wind farm became a new tourist attraction in

Guimaras. The turbines are imported from a Spanish company, Gamesa. Maintenance is done by local TAREC staff with the assistance of Gamesa's experts, until the local staff are ready to conduct maintenance independently with the proper trainings.

Since its commercial operation date in December 2014, San Lorenzo wind farm has been meeting the electricity demands of Guimaras, and exporting the surplus to Iloilo. A 3-km submarine cable along the Guimaras Strait connects Guimaras and Iloilo. Apart from providing electricity to the people of Guimaras, the wind farm has additional impacts to the islanders: livelihood generated during construction, as well as increased tourism which increases economic activity.



Credit: ACE



Credit: Philippines DOE

# SITE VISIT: 54 MW San Lorenzo Wind Farm

Credit: Philippines DOE



# Maximising **Ocean Renewables Potentials** with a **Regional Platform\***

Southeast Asia faces an interesting period of opportunities to further develop in a more sustainable way. Although in a nascent stage, ocean renewable energy (RE) in Southeast Asia could take advantage of the different opportunities that the region has to offer. To countries like Indonesia and the Philippines, there are potential local demands for technology development such as usage of ocean renewables for off-the-grid electrification solutions in islands and remote coastal area. These local demands could go hand-in-hand with both public and private sectors' increased awareness on ocean RE technologies, and how ocean RE can be utilised to: 1) serve as a clean energy alternative to empower remote islands and coastal region; 2) enhance energy per capita; and 3) minimise carbon foot print. The region can take advantage of these by becoming an early adopter of this relatively new technology, while at the same time enhancing its capabilities to effectively use ocean/marine space, assess environmental impacts, and implement marine spatial planning.

Collaboration for Ocean Renewable Energy (SEACORE). SEACORE was initiated by the Energy Research Institute @ Nanyang Technological University (ERI@N) in collaboration with Singapore's neighbouring countries; Brunei Darussalam, Indonesia, Malaysia, Myanmar, the Philippines, Thailand and Vietnam. The initiative's objective is to understand the regional energy needs and ocean energy technology challenges specific to the tropical conditions of Southeast Asia. It is founded on 26 February 2013 after the signing of "SEACORE Initiative Signed Agreement" by the founding members (i.e institutions from each country representative) who were present during an ocean RE workshop hosted by ERI@N and sponsored by the British High Commission, Singapore.

Last October 2015, Dr. Sanjayan Velautham, the Executive Director of the Association of Southeast Asian Nations (ASEAN) Centre for Energy (ACE) and Dr. Srikanth Narasimalu of ERI@N, signed a Memorandum of Understanding (MoU) to signify



During the "Ocean renewable energy in Southeast Asia: What do Experts Say?" from 25 to 26 February 2013 hosted by ERI@N, and co-organised with British High Commission- Singapore. Credit: ERI@N

A supportive environment for knowledge transfer and experience sharing, and for multi-stakeholders' (industry and technology players, policy makers, academia and even local communities) collaboration, would create a healthy pathway to drive ocean RE uptake in the region. In an environment that recognises value-addedness and roles of each stakeholder, integrating expertise and technology from within and outside the region should come naturally to drive collective advancement. This is the reason behind the creation of the Southeast Asian

the continuous efforts of both institutions to drive projects, activities and events that lead to the increase of awareness and uptake of ocean renewables in Southeast Asia. ACE recognises SEACORE as its official technical working group in offshore/ocean renewables under the ASEAN Renewable Energy Sub-sector Network (RE-SSN). Among the areas of cooperation under this MoU are: 1) research on offshore/ocean RE and its technological solutions, techno-economics and policy aspects towards regional energy security in Southeast Asia; and 2)

# Maximising **Ocean Renewables Potentials** with a **Regional Platform\***



Founding Members of the SEAcORE Network.  
Credit: ERI@N

human resources and capacity building activities on offshore/ocean renewables. Together with ASEAN RE-SSN, SEAcORE could effectively accelerate the early adoption of ocean RE in Southeast Asia, by driving regional activities, raising awareness, and identifying suitable ocean energy technologies.

As a platform that facilitates exchange of ideas, initiatives and experiences, SEAcORE will take an active part as the local organising committee in the upcoming Asian Wave and Tidal Energy Conference (Singapore, 24 – 28 October 2016). To know more about the event, please go to [www.awtec.asia/awtec-2016/](http://www.awtec.asia/awtec-2016/).

(Mary Ann Joy Quirapas and Dr. Srikanth Narasimalu, Wind and Marine Renewables Team of the Energy Research Institute @ Nanyang Technological University, <https://blogs.ntu.edu.sg/seacore/>).

*\*The views and opinions expressed in this article are solely from the authors and do not represent the authors' institution.*



Dr. Sanjayan Velautham of ACE and Dr. Srikanth Narasimalu during the signing of MoU between ACE and ERI@N.  
Credit: ERI@N

**Your RE Newsletter is waiting for your articles and news!  
Let's get connected with the RE community in ASEAN and worldwide!**

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