

APEC EXPERT GROUP ON NEW & RENEWABLE ENERGY TECHNOLOGIES (EGNRET)

45th EGNRET Meeting

Xiamen, China

16-17 November, 2015

Introduction

The 45th meeting of the Expert Group on New and Renewable Energy Technologies (EGNRET) was held on November 16 to 17, 2015 at Xiamen University, Xiamen, China. In addition, two APEC Workshops were arranged with the meeting, one is the APEC Workshop on Best Practice of New and Renewable Energy Development in APEC Region held on November 18 and the other is the Final Dissemination Workshop on District Energy Systems Development Roadmap Study in APEC Economies on November 19, 2015. A site visit of Renewable R&D facilities in Xiamen University was scheduled in the afternoon on November 19, 2015.

The EGNRET 45th meeting was chaired by EGNRET Secretariat and Acting EGNRET Chair, Dr. Chang-Chung Yang, the Deputy Division Director of New Energy Technology Division, Green Energy Laboratory, Industrial Technology Research Institute, and the Co-Chair was Mr. Shuang Zhang, who is the EWG China representative and the Secretary of Department of International Cooperation, National Energy Administration, People's Republic of China. EGNRET representatives from Japan, Philippines, Chinese Taipei, Thailand, United States, and APEC Expert Group representatives from APEC Expert Group on Energy Data Analysis (EGEDA), APEC Expert Group on Energy Efficiency and Conservation (EGEE&C), APEC Sustainable Energy Center (APSEC), Asia Pacific Energy Research Centre (APEREC), and International Copper Association Ltd. (ICA), and delegates from Xiamen University, China Guodian Corporation, China Energy Conservation and Environmental Protection Group, China Energy Storage Alliance, and Canadian Solar were participated in the meeting.

On behalf of the host of China, Mr. Zhang, the meeting co-chair, and Dr. Zhang, the Xiamen University host welcomed the delegates and gave a quick overview of how China dedicates in new and renewable energy to protect environment and energy security. Since the EGNRET Chair and the Vice Chair didn't attend the meeting, Dr. Yang from ITRI-Chinese

Taipei, the EGNRET Secretariat, made a quick endorsement for taking the Chairship of EGNRET 45. Afterward, Dr. Yang gave a welcome remarks and a brief introduction about the EGNRET 45 meeting agenda. A final agenda distributed by the Chair was reviewed and accepted.

The Chair then reported the recent APEC activities since EGNRET 44 in Laoag, The Ilocos Norte, The Philippines. The activities summary included the EGNRET 44, EWG 49 in Korea, EMM12, and EWG Strategic Plan.

The first presentation was made by Mr. Lin Wan, the EGNRE China representative expert.

The invited presentation reported in this meeting included the Chair and representative from APERC, APSEC, LCMT, EGEE&C, EGEDA, and ICA.

The APERC gave two presentations.

There were 10 concept notes discussed during EGNRET 45 and 4 were endorsed and will submit during 2015. The proposed projects discussed during the meeting are listed below:

There were 10 concept notes proposed in EGNRET 45 for Session 1, 2016.

1. [NRE161-1] China - *Develop Concentrating Solar Power (CSP) Technology to Promote Renewable Energy Resilience*

After the presentation of Concept Notes, USA had a comment on the workshop hosting and publication budget. The budget should be adjusted according to the APEC project guideline.

The Chair also had question on the Concept Notes that if CSP could be utilized by all of the APEC economies or just certain economies because CSP may not be applicable to all the area. The Concept Notes should make the CSP benefit stands out in the Concept Notes. Dr. Wu from Chinese Taipei suggested to emphasis “APEC region” to the project title.

The Concept Notes should be revised according to the comments provided in EGNRET 45, and then send back to the EGNRET Secretariat for seeking member review and co-sponsorship.

Chinese Taipei supports this project as co-sponsor after the meeting.

2. [NRE161-2] China - *Off-Grid Electrification Option for Remote Regions in APEC Economies*

The Concept Notes clearly indicated the difference between this project and other off-grid electricity/community related projects during the presentation.

Mr. Ikeda from Japan mentioned that Japan is currently working on AC micro-grid development in industry area. The project implementation would be interested by Japan. Japan would be happy to be the project co-sponsor till internal confirmation after the meeting. The Philippines also expressed the support and willingness to be the co-sponsor although he has to confirm it later through the internal discussion. The final co-sponsorship of the project would be confirmed after the meeting through email.

Dr. Cary Bloyd expressed that USA can to be the co-sponsor for this project. Thailand also confirmed the co-sponsorship for this project.

3. [NRE161-3] China - *Promoting innovative green financing mechanisms for sustainable urbanization and quality infrastructure development in APEC region*

Thailand suggested the PO to consult with Viet Nam working teams who has done the similar projects in recent years in case there may be overlap working items.

The Philippines expressed the support to be the co-sponsor of this project although the final decision has to be confirmed with the Philippines EWG representative later.

The project has been co-sponsored by Hong Kong, China before the meeting.

4. [NRE161-4] China - *Study on the cost-effective renewable energy-supply solutions based on innovative solar technologies to promote green buildings in APEC region*

The Philippines representative expressed that they would consider being the co-sponsor after internal confirmation.

The project has been co-sponsored by Hong Kong, China before the meeting.

5. [NRE161-5] China - *Strategic Plan to Implement APEC Cooperation Initiative for Jointly Establishing the Asia-Pacific Urbanization Partnership*

Mr. Wan, the China EGNRET representative, indicated the project event hosting and publication should be adjusted by the APEC Project Guideline.

Thailand commented that the project should have more linkages to the member economies. Dr. Bloyd from USA also comments that this project may have more linkage to EGEE&C. the project is suggested to be viewed by EGEE&C too.

The PO will revise the concept note about the linkage part and send it back to EGNRET for support and co-sponsorship.

Thailand would consider being the project co-sponsor after the internal confirmation.

The project has been co-sponsored by Hong Kong, China and Malaysia before the meeting.

6. [NRE161-6] China - *Research on Energy Storage Technologies to Build Sustainable Energy Systems in the APEC Region.*

The project got 4 co-sponsors from EWG representatives before the meeting, which are USA, Japan, and Australia.

7. [NRE161-7] Chinese Taipei - *APEC Network on Demonstration of Innovative Two-stage Bio-gaseous Production and Bioelectricity Generator from POME*

Co-sponsorship confirmed in the meeting: USA, China, and Thailand.

8. [NRE161-8] Chinese Taipei - *Enhancing the Privacy Right Protection under development of Smart Meters in the APEC Region*

USA would like to be the co-sponsor for this project.

Thailand mentioned they has been operating related project from LCMT, so Thailand would like to support the project as the co-sponsor.

China expressed support to be the co-sponsor.

Japan expressed the support but need to confirm for the co-sponsor through their internal discussion after the meeting.

Co-sponsorship confirmed in EGNRET 45 (no communication proof needed): USA, China, and Thailand.

9. [NRE161-9] Thailand - *Guidelines toward high biodiesel blend diesel (e.g. B20) specification in the APEC region*

Co-sponsorship confirmed in EGNRET 45 (no communication proof needed): Chinese Taipei, China, and USA have confirmed to be the co-sponsor for this project.

10. [NRE161-10] China - *Case Studies on District Energy Application in Low Carbon Town Project*

They have some certain cities could be a model for LCMT district energy study.

Budget may be reconsidered.

Dr. Wu represented Chinese Taipei suggested the project should emphasis the impact to APEC region. There are already many case studies on low carbon town, like APEC-LCMT project (Yujiapu, Samui Island, and Danang). Some of APEC economies or countries not located in APEC region may also have built up many Low Carbon Towns demonstration. For example, the Low Carbon Island project on Peng Hu islands built by Chinese Taipei could be a good reference.

The meeting Chair made a conclusion that the project should be sent back to EGNRET Secretariat after the meeting as soon as possible for circulation and seeking for co-sponsorship.

Chinese Taipei expressed to support the project and be the co-sponsor after the meeting.

All revised Concept Notes are expected to be sent back to EGNRET Secretariat within 3 days after the EGNRET 45 since most of them have to confirm the co-sponsorship before being sent to EWG.

The all Concept Notes comments and co-sponsorship were circulated among EGNRET 45 participants on Nov. 17.

LIST OF PARTICIPANTS (APEC related parties)

EGNRET 45 Summary Record

Name	Economy	Organization
Dr. Keng Tung Wu	Chinese Taipei	National Chung Hsing University
Dr. Chang Chung Yang	Chinese Taipei	ITRI
Ms. Vivian Hsieh	Chinese Taipei	ITRI
Dr. Cary Bloyd	USA	Pacific Northwest National Laboratory
Mr. Ariel D. Fronza	The Philippines	Geothermal Energy Management Division
Mr. Shuang Zhang	China	China EWG Rep.
Mr. Lin Wan	China	China EGNRET Rep.
Mr. Takao Ikeda	Japan	The Institute of Energy Economics, Japan
Ms. Munlika Sompranon	Thailand	Ministry of Energy, DEDE
Dr. Yaowateera Achawangkul	Thailand	DEDE
Mr. Li Pengcheng	EGEE&C	Chair
Mr. Miyagawa Takuya	EGEDA	EGEDA
Mr. Linmin Xia	APERC	Asia Pacific Energy Research Centre Researcher
Mr. Michael Ochoada Sinacruz	APERC	Asia Pacific Energy Research Centre Researcher
Mr. Pierre Cazelles	ICA	International Copper Association, Asia Director/Partnership Asia

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Mr. Mayur Karmarkar	ICA	International Copper Association, Asia Director/Sustainable Energy
Ms. Li Zhu	APSEC	APEC Sustainable Energy Center President
Mr. Xu Zhao	APSEC	APEC Sustainable Energy Center Researcher
Ms. Yan Li	EGEE&C	Secretariat