

Viet Nam Energy Partnership Group

TECHNICAL WORKING GROUP 1: RENEWABLE ENERGY

REPORT OF THE 4TH MEETING

Date: 23 September 2019
Location: MoIT meeting room 101, 25 Ngo Quyen, Hanoi
Time: 14:00 – 17:00

Key agenda points:

- Update on current developments in the RE sector – market and policy
- Focus topic grid integration of RE – presentation of new grid assessment study
- Preparation of High-Level Meeting / Stakeholder Forum 2019 (Progress Report TWG 1)

Chair and Co-Chair:

- **Mr. Nguyễn Ninh Hải**, Director, Division of New and Renewable Energy, Electricity and Renewable Energy Authority, Ministry of Industry and Trade (MOIT)
- **Mr. Sebastian Paust**, First Counsellor, Head of Cooperation and Development - German Embassy

Agreed Conclusions and Actions: (See next page)

Agenda: See Annex 1

Participants: See Annex 2

Minutes: See Annex 3

Inputs: See Annex 4 -

4.1 Matrix for inputs for TWG 1 Progress Report

4.2 Presentations

AGREED CONCLUSIONS AND ACTIONS:

Conclusion/Decision	Action
<ul style="list-style-type: none"> The Chair introduced Mr. Sebastian Paust, First Counsellor, Head of Cooperation and Development from German Embassy as the new Co-chair of TWG 1 on Renewable Energy. The Co-chair, Mr. Sebastian Paust greeted and shared with the participants his experience in the energy sector. He looked forward to working with the TWG members to put forth the agenda for sustainable energy development in Vietnam. 	Chair/ Co-chair
<ul style="list-style-type: none"> The Chair gave updates on current market and policy development in the field of Renewable Energy, particularly the draft solar FIT 2, draft biomass FIT and the planning for W2E. 	The Chair
<ul style="list-style-type: none"> EREA delivered a presentation on the <i>Study on RE Integration in the Southwest Viet Nam</i> supported by GIZ. Phase 1 of the study will cover 5 provinces namely Ca Mau, Bac Lieu, Soc Trang, Ben Tre and Tra Vinh. Phase 2 of the Study which will cover 22 Southern provinces of Viet Nam. The study would be conducted by Institute of Energy and tentatively start in October. The preliminary results will be in March and the results will be concluded in June next year. Results of the Study phases will be taken into consideration and incorporated during the development of PDP8. 	Chair/ Co-chair TWG Members VEPG Secretariat
<ul style="list-style-type: none"> The Secretariat gave an update on the planning for the VEPG Steering Committee Meeting and the HLM 2019 and the 1st stakeholder forum as well as moderated a working session on the progress of implementing the VEPG (TWG 1) Policy Recommendations, future outlook and reporting to the VEPG Steering Committee and HLM. The TWG 1 members provided comments and reflections on the progress report of the TWG 1 to the SC and the HLM (Annex 4.1) 	VEPG Secretariat Chair/ Co-chair TWG Members
<ul style="list-style-type: none"> The Chair and the Co-chair thanked the active participations of the members of the TWG and asked to stay connect for inputs for the progress report for the HLM. 	Chair/ Co-chair

ANNEX 1 - AGENDA

13.30-14.00 Registration

14.00-14.20 Opening remarks, overview of the agenda, Secretariat report

Mr. Nguyễn Ninh Hải / Mr. Sebastian Paust

- Introduction of Mr. Paust as new Co-Chair of TWG 1
- *Secretariat*: Brief report on VEPG activities

14.20-15.10 Updates on current RE development – market and policy

- *EREA/MOIT*: Updates on current market and policy development RE (solar FIT 2, new draft biomass FIT, planing for W2E FIT, etc.).
- *Plenary*: Q&A and discussion

15.10-15.40 Focus topic: Grid integration of Renewable Energies

- *EREA/MOIT*: New Grid assessment study for Southern Viet Nam
- Q&A and plenary discussion

15.40-15.55 Coffee Break

15.55-16.50 VEPG High-Level Meeting 2019 - TWG 1 Progress and Future Work

- *Secretariat and Chair/Co-Chair*: Update on the HLM 2019 planning and draft TWG 1 Progress Report (monitoring/implementing the TWG Policy Recommendations).
- *Plenary*: Discussion and feedback on achieved progress, remaining challenges and future topics for TWG 1 work.

16.50-17.00 Closing of the meeting

Mr. Nguyễn Ninh Hải / Mr. Sebastian Paust

ANNEX 2 - Participants

Co-chairs

- **Mr. Nguyễn Ninh Hải**, Director, New and Renewable Energy Division, Electricity and Renewable Energy Authority, Ministry of Industry and Trade (MOIT)
- **Mr. Sebastian Paust**, First Counsellor, Head of Economic Cooperation and Development - German Embassy

Participants

- **Ms. Nguyễn Thị Thương**, EREA, MOIT
- **Ms. Trần Thùy Dương**, Delegation of the European Union (EUD)
- **Mr. Antoine VanDer Elst**, Delegation of the European Union (EUD)
- **Mr. Jakob Stenby Lundsager**, Denmark
- **Ms. Trần Hồng Việt**, Denmark
- **Mr. Lê Đại Nghĩa**, Finland
- **Mr. Daniele Paladini**, Italy
- **Mr. Arne-Kjetul Lian**, Norway
- **Ms. Trần Thị Thanh Tâm**, The Netherlands
- **Ms. Luiza Girleanu**, Romania
- **Mr. Marcel Reymod**, Switzerland
- **Ms. Lê Thanh Thảo**, UNIDO
- **Mr. Vũ Quang Đăng**, ADB
- **Mr. Gary Zieff**, USAID/V-LEEP
- **Mr. Ananth Chikkatur**, USAID/ V-LEEP
- **Ms. Trịnh Quỳnh Chi**, Clean Energy Investment Accelerator
- **Mr. Lương Bá Hùng**, Vietnam Business Forum
- **Mr. Nguyễn Đình Thìn**, Solar Electric Viet Nam
- **Mr. Nguyễn Thành**, Solar Electric Viet nam
- **Mr. Jeroen De Watcher**, Deep-C
- **Mr. Brian Hull**, ABB
- **Mr. Nguyễn Tường Khanh**, Ecoplexus
- **Ms. Đỗ Thị Lan Anh**, GIZ
- **Ms. Vũ Chi Mai**, GIZ
- **Ms. Nguyễn Lan Chi**, GIZ
- **Mr. Sven Enerdal**, GIZ
- **Mr. Nguyễn Thị Thủy Anh**, Asia Cube Energy
- **Mr. Bùi Thành Trung**, JICA
- **Ms. Ngô Tố Nhiên**, VIET-SE
- **Mr. Nguyễn Quốc Khánh**, Independent Consultant
- **Mr. Arne-Kjetul Lian**, Norway

VEPG Secretariat

- **Mr. Rainer Brohm**, VEPG Secretariat
- **Ms. Nguyễn Phương Thảo**, VEPG Secretariat
- **Mr. Đỗ Quang Nhật**, VEPG Secretariat
- **Ms. Vũ Minh Hiền**, GIZ Support Team

ANNEX 3 - SUMMARY MINUTES

Agenda Item	Note
<p>Opening remarks, overview of the agenda, Secretariat report</p>	<ul style="list-style-type: none"> • The Chair introduced Mr. Sebastian Paust, First Counsellor, Head of Cooperation and Development from German Embassy as the new Co-chair of TWG 1 on Renewable Energy. • The Co-chair, Mr. Sebastian Paust greeted and shared with the participants his experience in the energy sector. He looked forward to working with the TWG members to put forth the agenda for sustainable energy development in Vietnam, especially renewable energy. • The Secretariat gave an update on the planning for the VEPG Steering Committee Meeting and the HLM 2019 and the 1st stakeholder forum.
<p>Updates on current RE development – market and policy</p>	<p>The Chair gave updates on current market and policy development in the field of Renewable Energy, particularly the draft solar FIT 2, draft biomass FIT and the planning for W2E.</p> <p>By the end of June 2019, total installed RE capacity is 4.442 MW ground-mounted solar pv and about 150 MW solar rooftop, 03 MW windpower, 342 MW biomass power and 10 MW waste to power.</p> <ul style="list-style-type: none"> • <i>Solar Fit</i>: The Chair also updated TWG members on the progress of the third draft Solar FiT which was submitted to the Prime Minister on 19 September 2019. The current draft covers 3 technologies: Mounted, Ground, Rooftop with 7.09 cents FiT for ground mounted, 9.35 cents for Rooftop with the limit of 1MWp. However, the Chair emphasized that this is the MOIT draft submitted to the PM for consideration. • <i>Biomass FiT</i>: MOIT is collecting inputs/comments on the draft FiT on MOIT website and by official documents to 63 provinces and relevant line ministries. • <i>Waste to power</i>: Currently EREA/MOIT is working with GIZ to prepare Summary report on implementing PM Decision 31/2014 and propose recommendations to the government. • <i>Competitive Auctioning Mechanism</i>: EREA/MOIT is working with WB and ADB on developing the competitive auctioning mechanism. World Bank (WB) has completed 2 assessments which are under review by MOIT and committed to the next phrase of research on auctioning mechanism. Once receiving the approval from PM, MOIT will proceed pilot auctioning phase. ADB also granted support for auctioning research with more focus on solar energy. <p>However, the Chair pointed out the differences between World Bank and ADB proposals on the Auctioning Mechanism. The WB has proposed 2 auctioning mechanism for each solar park or each station with the pilot for solar energy with the fixed agreement for 20 years. ADB’s activities included a study on auctioning under the topic of power sector reform.</p> <p>ADB proposal is using derivative to adjust to the fluctuations of the market and auctioning must be implemented by an independent agency whereas World Bank proposes MOIT or EVN or regulating agency to be the focal point for implementation. The Chair emphasized that this is a new topic so the</p>

MOIT is welcoming both the WB and the ADB work together to identify which model will be fit for the Viet Nam's condition. The MOIT is reporting to the PM this October about the assessment and the pilot implementation.

Plenary session: Q&A

The TWG members reflected on the EREA presentation as follows:

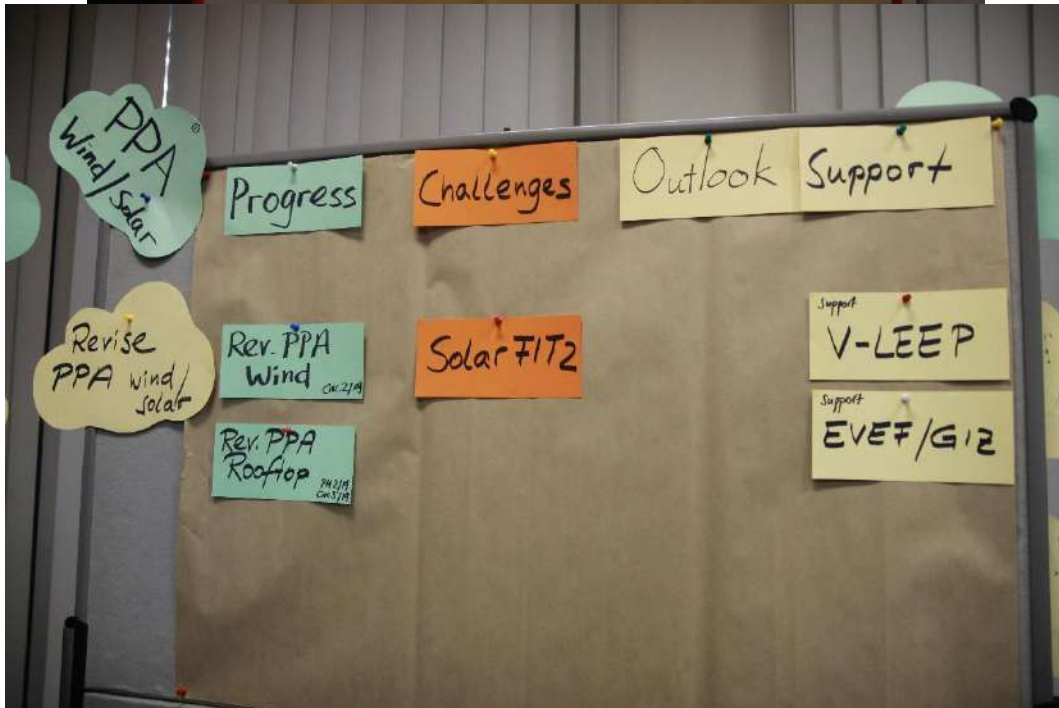
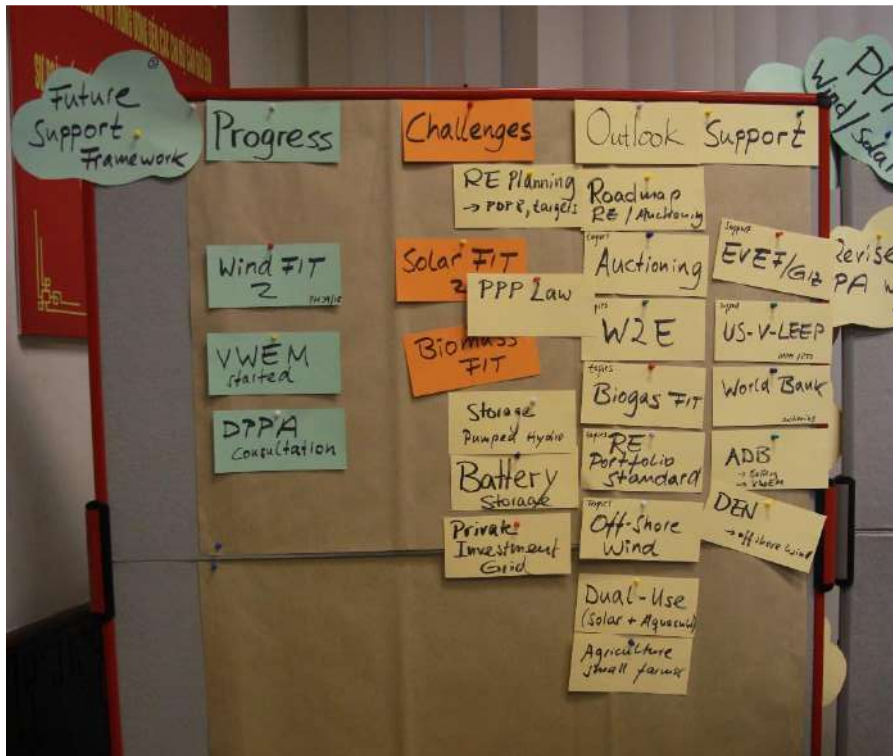
- Representative from **Coplexus** is concerned that the new draft FiT proposal of one zone for the whole country may cause investment density in some areas as well as curtailments because of the overloaded grid. TWG members also asked about opportunities for late-coming investor as well as government's support for projects in higher risk area.
- Addressing this concern, the Chair refer to the Planning Law with instructions on the addition of new projects into the Plan from National Assembly before PDP8 can be finalized and published. However, at the meantime, there is no exceptional policies for the late-coming group. To avoid curtailment risks when applying one zonal FiT for the whole country, the assessment and approval for projects will be thoroughly/carefully conducted.
- The Chair further took note of TWG members' queries on the incentives for Rooftop PV system in aqua-agriculture (shrimp and fish farm with Rooftop PV system). This issue is being considered and further discussed.
- Regarding private investment in the grid transmission, while investment in the transmission line to the connection point in the grid operated by EVN in the project is responsibility of the investor; the general transmission activity according to Electricity Law is monopoly by the state. However, at the moment, in the Decree, there is no clear definition for transmission activity whether it only covers investment or operation and maintenance (or both) and which part can be open to private investment. MOIT already reported this issue to National Assembly and asked for clearer explanation/definition for transmission activity.
- **ADB** updated the meeting on their study with EVN on using battery storage to free up the grid-congested areas. EVN's study indicated that grid expansion is more beneficial than battery storage with frequent maintenance. ADB and EVN will work together on the implementation of some pilot projects.
- The Chair shared the reasons why battery storage is removed from the current draft: first, according to the consultant, the centralized battery storage will be more beneficial than decentralized battery storage by each project. In Viet Nam, there are 98 projects with battery storage, it would be better for the battery to serve for that project rather than be utilized for other purposes at this point of time.
- In the future, MOIT will consider IPP for only storage projects. MOIT express the need for further support from donors/development partner on this issue. Right now USAID is supporting ERAV on pilot project for battery storage, ADB is supporting EVN with a FS on centralized battery storage.
- Regarding offshore wind, the projects which has COD before 2021 will be enjoying the FiT. However, there is no further commitments,

	<p>supporting mechanism from the government. Currently, WB and Denmark are supporting MOIT for offshore wind mechanism.</p> <ul style="list-style-type: none"> • Regarding the RE Roadmap, after 2021, auctioning mechanism will be applied for the both wind and solar power projects. However, further study on auctioning mechanism should be conducted at this stage. <p><u>The Chair and Co-chair</u> concluded this agenda:</p> <p>The Chair and Co-Chair thanked all TWG members for their updates on their ongoing project activities and up-coming projects.</p>
<p>Focus topic: Grid integration of Renewable Energy</p>	<ul style="list-style-type: none"> • Ms. Nguyen Thi Thuong/EREA, MOIT delivered a presentation on the Study on RE Integration in the Southwest Viet Nam supported by GIZ. Phase 1 of the study will cover 5 provinces namely Ca Mau, Bac Lieu, Soc Trang, Ben Tre and Tra Vinh. The objectives of the study aim at evaluating the capability of evacuating power generated from approved RE projects in these 5 provinces (2,000 MW) and the capability and options of power evacuation for RE projects being submitted for incorporation into the Plan as well as proposing solutions to evacuate RE capacity of 6,300 MW in 5 provinces. Details of the presentation will be found in Annex xxx <p>1) The TWG members reflected on Ms. Thuong’s presentation:</p> <ul style="list-style-type: none"> • GIZ updated the meeting on the next phase of the Study which will cover 22 Southern provinces of Viet Nam. The study would be conducted by Institute of Energy and tentatively start in October. The preliminary results will be in March and the results will be concluded in June next year. Results of the Study phases will be taken into consideration and incorporated during the development of PDP8. • EREA and GIZ took note of suggestion from TWG members on additional battery storage as well as other flexible sources for transmission line in the next study phase. • Norwegian Embassy suggested the inclusion of LNG together with wind and solar power in the study. While taking note of this suggestion for the future study, the Chair further explained that due to the time restraints, the study only covers the projects approved before Jan 2021 according to Decision 31. • Finland Embassy shared with the meeting their experience in Waste to Energy for energy generation.

	<ul style="list-style-type: none"> • Denmark is working with IOE for full energy system analysis and outlook for RE by 2030 which can be used as the reference to the grid study.
VEPG High-Level Meeting 2019 - TWG 1 Progress and Future Work	<ul style="list-style-type: none"> • The Secretariat gave an update on the planning for the VEPG Steering Committee Meeting and the HLM 2019 and the 1st stakeholder forum as well as moderated a working session on the progress of implementing the VEPG (TWG 1) Policy Recommendations, outlook and reporting to the VEPG Steering Committee and HLM. • The TWG members provided comments and recommendations for the Progress Report of the TWG (Summarized in Annex xxx).
Conclusions, agreements, closing remarks	<p>The Chair and Co-Chair concluded the meeting with the following remarks:</p> <ul style="list-style-type: none"> • The Chair and Co-Chair thanked all TWG members for joining and for their active and constructive participation. • The Chair and Cochair will incorporate the comments and suggestions into the progress report of the TWG to the HLM.

ANNEX 4.1 – MATRIX FOR INPUTS FOR TWG 1 PROGRESS REPORT







ANNEX 4.2 – PRESENTATIONS



Viet Nam Energy Partnership Group

Technical Working Group 1 – Renewable Energy

4th Meeting – 23 September 2019
MOIT, Ha Noi

Key Objectives of the Meeting

- **Update and current developments** in the renewable energy sector – market and policy
- **Focus on topic of grid integration** – presentation of new grid assessment study (Planning Division, EREA)
- **Review of TWG 1 activities and progress** on implementation of VEPG Policy Recommendations in preparation of VEPG High-Level Meeting 2019
- **Outlook – priorities for work of TWG 1** in the field of renewable energy and support needs for the future

Agenda

Time	Subject
14.00-14.20	1. Opening remarks, overview of the agenda <ul style="list-style-type: none"> Mr. Nguyễn Ninh Hải/ Mr. Sebastian Paust (introduction as new Co-Chair) Secretariat updates on VEPG activities
14.20-15.10	2. Updates on current RE development – market and policy <ul style="list-style-type: none"> <u>EREA/MOIT Chair</u>: Updates on current market and policy development <u>Plenary</u>: Q&A and discussion
15.10-15.40	3. Focus topic: Grid integration of renewable energies <ul style="list-style-type: none"> <u>EREA/MOIT Planning Department</u>: New grid assessment study for Southern Vietnam <u>Plenary</u>: Q&A and discussion
15.40-15.55	Coffee/tea break and photo session
15.55-16.50	4. VEPG High-Level Meeting 2019 - TWG 1 progress and future work <ul style="list-style-type: none"> <u>Secretariat</u>: Update on the HLM 2019 planning and presentation of the draft TWG 1 Progress Report (monitoring/implementation the TWG Policy Recommendations) <u>Plenary</u>: Discussion and feedback on achieved progress, remaining challenges, future work/priorities of TWG 1
16.50-17.00	5. Conclusions and closing remarks <ul style="list-style-type: none"> Mr. Nguyễn Ninh Hải/ Mr. Sebastian Paust

Top 1: Opening and Introduction

TWG 1 Chair:

- *Mr. Nguyễn Ninh Hải, Director of Renewable Energy Division, ERAV/MOIT*

New TWG 1 Co-Chair:

- *Dr. Sebastian Paust, Head of Development Cooperation, German Embassy*

Top 1: Secretariat Report on VEPG Activities


VEPG Secretariat:

- *Mr. Rainer Brohm, International Coordinator*

Follow up on 3rd TWG 1 meeting (March 2019)

Consultation on new Solar FIT 2

- VEPG TWG 1 **consultation workshop** on the Solar FIT 2 as part of the public consultation workshop.
- All inputs from TWG members and further private sector stakeholders were collected and compiled in a **submission document to MOIT** (as a formal input to the MOIT consultation process).
- VEPG Secretariat **coordinated with private sector** (REBA workshop).

VEPG Technical Working Group 1 – Renewable Energy	
	
<p>Consultation on draft PM Decision for the Solar FIT 2 (draft issued by MoIT on February 21, 2019)</p> <p>The following comments and questions from energy sector stakeholders were collected and documented by the VEPG Secretariat during the 3rd meeting of VEPG TWG 1 on March 15, 2019. TWG members and further sector stakeholders additionally submitted comments and questions to the VEPG Secretariat before and after the meeting. This document was submitted to EREA/MOIT on April 3, 2019 as an input to the public consultation process on the Solar FIT 2.</p>	
Topic	Comments and questions from energy sector stakeholders
General Comments on the draft:	
	<ul style="list-style-type: none"> • Many sector stakeholders see the draft Decision as potentially providing a more supportive legal framework for Rooftop Solar (RTS) investments in Viet Nam, particularly with the opening of new third-party investor models (e.g. on-site direct PPA, ESCO etc.) and increased FIT levels for some regions (due to the new FIT zone approach). • Sector stakeholders also see the potential of the new FIT zone approach to attract more solar ground-mounted project investments to regions in Central and Northern Viet Nam where grid capacity is available. • In general, there are still uncertainties and worries regarding the detailed regulations for ground-mounted PV that will be defined in an upcoming MoIT Circular (replacing Circular 16/2017). This applies specifically to the PPA regulation and related issues that have been discussed in the past already, such as the curtailment risks etc. • Furthermore, there is still need for clarification and open questions regarding legal definitions and some regulations in the draft Decision. This applies to terms of legal definitions, the default business/FIT models, the role of investors and developers and of PPA in particular (also see the below comments and questions). • To reach investment security for the time after June 2019 (when the current FIT regulation expires) as soon as possible, the expected additional MoIT Circular (replacing regulations of Circular 16/2017) should be issued as soon as possible. • In this respect, MoIT Circular 5/2019, issued March 11, 2019 is understood as providing detailed regulations for RTS systems already. However, since this Circular 5/2019 refers to the FIT of the current PM Decision 11/2017, it is expected that this Circular also needs to be updated for the new FIT levels after June 2019.
Legal Definition	
Electricity Buyers and Electricity Sellers	<ul style="list-style-type: none"> • Need for clarification: Does the third-party investor/ developer fit into the definition of the "Electricity Sellers"? • Need for clarification: Does the term "Electricity Buyers" include the PV/project off-takers/ customers other than EVN or Power Companies under EVN?

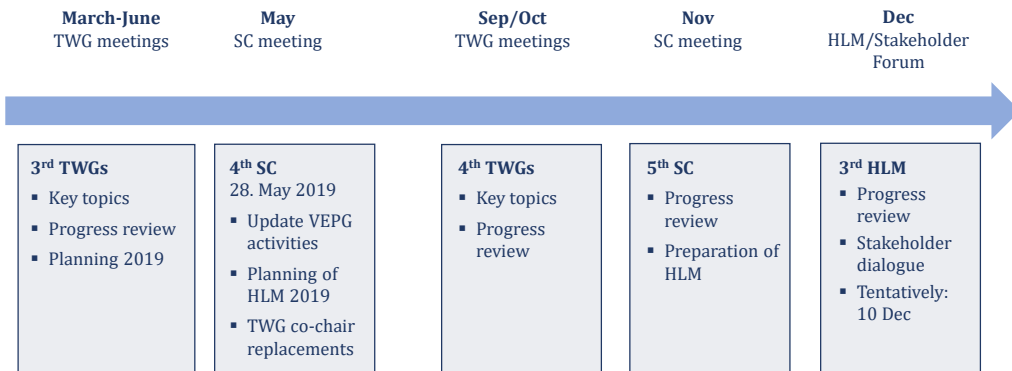
Follow up on 3rd TWG 1 meeting (March 2019)

Presentation and consultation on the Rooftop Solar Promotion Programme











- All inputs from TWG members were discussed within the Programme Coordination Group.
- **Launch event on 25 July 2019** in HCMC.
- EREA is setting up an **Advisory Board** for the Programme and develops the implementation framework (M&E) with support from DPs.
- **Further open for inputs from other DPs or sector stakeholders!**



VEPG – Timeline for 2019



TWG's 4th Round of Meetings – Overview

TWG	3 rd Meeting	Key Topics/Highlights
TWG 1 RE 	 23. Sep 2019	<ul style="list-style-type: none"> • Updates on current policy processes (Solar FIT 2, RTS programme, bioenergy FIT etc.) • Focus topic: RE grid integration (Grid Assessment in Southern Vietnam)
TWG 2 EE 	 2. Oct 2019	<ul style="list-style-type: none"> • Presentation and discussion on draft National EE Action Plan (NEEAP) • Discussion of MRV Framework for EE/VNEEP and EE Database
TWG 3 ESR 	 12. Sep 2019	<ul style="list-style-type: none"> • Report on first half year of VWEM operation • Update on DirectPPA process and pilot scheme • Discussion on priority topics / scope-of-work for TWG 3 (competitive power market)
TWG 4 EA 	 3. Oct 2019	<ul style="list-style-type: none"> • Progress and Challenges in Rural Electrification • Discussion of Energy Access projects in different VN regions
TWG 5 D&S 	 Nov 2019	<ul style="list-style-type: none"> • Discussion on VEIS Circular and Pre-Feasibility Study • Discussion of approved outline for PDP 8 • Discussion of Energy Balance 2017

Update TWG 3 (12.9): Topics for Future Work Power Sector Reform

Regulatory challenges for developing a competitive power market

- Wholesale electricity market status and next steps
- Pathways towards retail market development
- Development of commercial frameworks (PPP law, DPPA, Auctions, etc.)
- Purchase tariff setting mechanisms on supply side
- Long-term contracts vs. spot market, generation and ancillary services
- Contracted capacity evacuation and VRE integration challenges
- Retail tariff mechanisms on demand side (consumer categories, incremental blocks)
- Evolution of tariff design (MYTO, time-of-use, e-mobility, etc.)
- Comprehensive communication plan for tariff

High-Level Meeting 2019 – Planning



Concept of 3rd VEPG HLM and 1st VEPG Stakeholder Forum:

3rd VEPG HLM:

- **Progress review** regarding VEPG Policy Recommendations and TWG work since HLM 2018
- **Outlook 2020 and guidance of VEPG Chairs** for TWGs and Secretariat

1st VEPG Stakeholder Forum:

- **Exchange of sector stakeholders** on „hot“ topics (progress/best-practice in VN/international, challenges, etc.)
- **Focus topics:**
 - **Strategic Sector Planning** (e.g. PDP 8, Party Energy Strategy, sector scenarios/energy mix of the future)
 - **Energy Efficiency** (VNEEP 3, etc.)
 - **Integration of Renewable Energy / Distributed RE** (e.g. Rooftop Solar)

Proposed date: **10 December 2019**

VEPG Partner Support – DP Project Survey



MAPPING OF CURRENT DONOR AND INTERNATIONAL EFFORT IN VIETNAM ENERGY SECTOR

Donor/Agency	Project name	Description/Description of interventions	Type of support	Time frame	Implementing Agency	PC	EE	ESK	EA	ESD
ADB	Power Transmission Investment Program- Tranche 1	Australia and the UK are providing funds to a World Bank led project, the Vietnam Climate Investment Case (VICIC). The project supports entrepreneurs SMEs in developing and commercialising innovative solutions in green economic sectors such as energy.	Loan (knowing)	2016-2017						
ADB	Power Transmission Investment Program- Tranche 2	The second tranche of the Australia-UK loan facility will finance the expansion of the transmission network, improve the operational effectiveness and efficiency of the National Power Transmission Corporation, and project implementation support.	Loan (knowing)	2017-2017	National Power Transmission Corporation (NTPC)					
ADB	Power Transmission Investment Program- Tranche 3	The Asian Development Bank is working with Viet Nam to improve the transmission network to balance power loads in northern, central, and southern Viet Nam. The project is supporting 300 kV and 220 kV level transmission lines and improving the operational effectiveness and efficiency of the National Power Transmission Corporation.	Loan (knowing)	2015 - 2020						
ADB	Ho Hai and Ho Chi Minh City Power Transmission Development Sector project	The project includes: (a) strengthened institutional capacities of HPPG and HCCMPC; and (b) the development and rehabilitation of 220 kV and 110 kV transmission lines and substations of Ho Hai and Ho Chi Minh City. It is cofinanced by ADB with Asian Infrastructure Fund (AIF) and UNDP contribution from Vietnam Government.	Loan (knowing)	2014 - 2016	Hanoi and HCCMPC Power Corporation					
ADB	Renewable Energy Development Network Expansion and Rehabilitation for Hanoi Commune Sector	The primary objective of the sector Project is to develop rural electrification and renewable energy in Viet Nam to benefit ethnic minority communities residing remote and border parts of the country. The Project consists of two inter-related components: (i) development of microhydroelectric plants of renewable generation; and (ii) network expansion and rehabilitation of distribution networks serving poor communities. The Project will include an associated technical assistance (TA) grant for capacity building for renewable energy development.	Loan (knowing)	2008 - 2017						
ADB	Renewable Energy Development and Network Expansion and Rehabilitation for Hanoi Commune Sector - Additional Financing		Grant	2015 - 2017	MPC, CPC, SPC					
ADB	Capacity Building of Renewable Energy Development		TA	2008 - 2017						
ADB	Establishing the Wholesale Electricity Market	The impact of the TA that national electricity grids are better maintained through digitalization. The activities of the TA include: (i) Basic and advanced training on general wholesale market mechanism; (ii) Recommendation on new functions and data requirements of Power Corporation and NEMCO (EMCO) for the VNEM; and (iii) Review the current ETC infrastructure of Power Corporation and NEMCO (EMCO), and recommendation for upgrading ETC infrastructure for the VNEM.	TA	2015 - 2016	EVN					
ADB	Rural Electrification	The project (comprising technical assistance (PTA)) will conduct a feasibility study for the Rural Electrification Bank (REB), support Rural Electrification (RE) Project in Viet Nam, which should include: (i) technical justification of the rural electrification project; (ii) assessment of the project being presented for the government; (iii) full feasibility study for the selected project sites; and (iv) preparation of all project documents regarding ADB for the investment of the project.	TA	2011 - 2016	MOT and EVN					

- **Overview of VEPG partner projects** in the energy sector (<http://vepg.vn/resources/vepg-documents/>)
- **80 partner projects** with key information included
- **New survey update** running in **September 2019**




VEPG Partner Support – Legal Database

RECENT LEGAL DOCUMENTS		
<p>MOIT Decision 2023/QĐ-BCT on the Approval of the Rooftop Solar PV Promotion Program</p> <ul style="list-style-type: none"> - Effective date: 05/07/2019 - Legislation type: Decision - Signer: MOIT Minister Trần Tuấn Anh <p>DOWNLOAD FOR DETAILS ></p>	<p>EVN Guidance 3450/EVN-KD on Settlement of Outstanding Issues on Rooftop Solar Power</p> <ul style="list-style-type: none"> - Effective date: 02/07/2019 - Legislation type: Guidelines - Signer: Vice President of EVN Võ Quang Lâm <p>DOWNLOAD FOR DETAILS ></p>	<p>MOIT Report 58/BC-CBT on the Implementation Progress of Power Projects in the Revised PDP7</p> <ul style="list-style-type: none"> - Effective date: 04/06/2019 - Legislation type: Report - Signer: MOIT Vice Minister Hoàng Quốc Vương <p>DOWNLOAD FOR DETAILS ></p>
<p>GoV Decree 37/2019/ND-CP Elaboration of the Planning Law</p> <ul style="list-style-type: none"> - Effective date: 07/05/2019 - Legislation type: Decree - Signer: Prime Minister Nguyễn Xuân Phúc <p>DOWNLOAD FOR DETAILS ></p>	<p>MOIT Circular 05/2019/TT-BCT amending Circular 16/2017/TT-BCT on Standardized PPA for Solar Power projects</p> <ul style="list-style-type: none"> - Effective date: 25/04/2019 - Legislation type: Circular - Signer: MOIT Minister Trần Tuấn Anh <p>DOWNLOAD FOR DETAILS ></p>	<p>Consultation on Draft Decision on the new Solar FIT</p> <ul style="list-style-type: none"> - Effective date: 15/04/2019 <p>DOWNLOAD FOR DETAILS ></p>

- **Legal Database** online and constantly expanding
- **+30 legal documents** (VN and EN versions).
- PM Decisions, MOIT documents, Consultation Documents, EVN guidelines, etc.

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VEPG Partner Support – Information Sharing

<p>VEPG AND PARTNER EVENTS</p>  <p>Public Consultation Workshop: DPPA Design and Pilot Planning for Viet Nam</p> <p>The Public Consultation Workshop: DPPA Design and Pilot Planning for Viet Nam took place on Wednesday 12 June 2019. The consultation workshop was co-organized by the MOIT – ERAV and the USAID V-LEEP.</p> <p>READ MORE »</p> <p>12/06/2019</p>	<p>UPCOMING EVENTS</p>  <p>Launching Event of Vietnam Initiative for the Energy Transition, Social Enterprises</p> <p>Vietnam Initiative for the Energy Transition, Social Enterprise (VIET SE) is an independent think tank. The mission is to promote a sustainable and reliable way of development to Vietnam's national energy system, throughout the efficient use of energy and the development of renewable energy sources.</p> <p>READ MORE »</p> <p>19/09/2019</p>	<p>UPCOMING EVENTS</p>  <p>Vietnam Renewable Energy Week 2019</p> <p>The Renewable Energy Week Vietnam 2019 is organized during a week from September 17th to September 20th in Hanoi and some other provinces in Vietnam with a series of events including workshops, seminars, and other side events.</p> <p>READ MORE »</p> <p>17/09/2019</p>
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- **VEPG Partner events** are featured on the website
- **+25 workshops and events** featured on website and information disseminated to members via TWG email groups in last 10 months.
- Including e.g. **RTS Launch Event** and support of public consultation on **Solar FIT 2**.

Top 2: Updates on Current RE Developments

EREA/MOIT:

EREA presentation

- *Mr. Nguyễn Ninh Hải, Director of Renewable Energy Division, EREA/MOIT*

Top 3: Focus Topic – Grid Integration of RE

EREA/MOIT:

EREA presentation

- *Ms. Nguyễn Thị Thương, Planning Division, EREA/MOIT*

Tea Break

Top 4: Progress Review and Outlook for TWG 1 / Preparation of HLM 2019

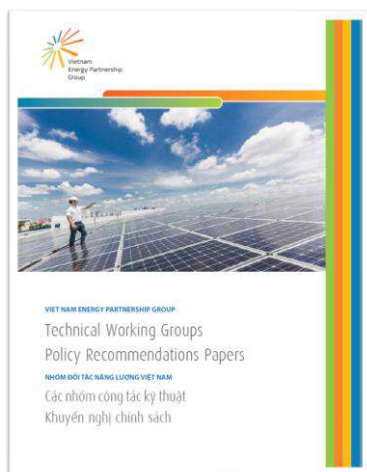
Progress Review – TWG 1 Policy Recommendations

- Progress on the VEPG / TWG 1 Policy Recommendations
- Review of work of TWG 1

Challenges and Outlook – Future Scope-of-Work and Priority Topics for TWG 1

- Challenges in the field of renewable energy development
- Priority topics and workplan for TWG 1 – What is the scope-of-work for TWG 1 in the coming year?

VEPG Policy Recommendations



Implementation of the VEPG Policy Recommendations

- **MOIT Minister and Co-Chairs of VEPG endorsed the Policy Recommendations** from 5 TWGs.
- **Technical Working Groups** were asked to focus work on supporting the implementation of the Policy Recommendations.
- **Monitoring Matrix** with information on 40 recommendations with timeline, indicators, progress status and DP support developed for each TWG.
- **Ongoing evaluation/assessment** of progress during current phase of 4th round of TWG meetings (September/October)
- Presentation of **Progress Report for HLM 2019** (submitted for SC review before next SC meeting (October 2019)).

TWG 1 Policy Recommendations – Monitoring of Progress

Policy Recommendations TWG 1 Renewable Energy	Timeframe	Instruments & Indicators	Status	Ongoing activity
Topic 1	→Revision of the PPA for solar and wind energy De-risk investments in solar and wind energy projects and mobilize domestic and international private sector investment potentials.			
Revise the PPA for solar and wind energy based on international standards with focus on the key aspects of transmission and distribution risks, off-taker obligations, contract termination provisions, dispute resolution mechanisms, off-taker payment risks and future compatibility with the VN Wholesale Electricity Market.	Short-Term (end of 2019):	Solar : Solar FIT 2 New PM Dec. and MoIT Circ. (replacing Dec. 11/2011 and Circ. 16/2017)	Ongoing	MoIT draft Solar FIT 2: new PM Dec. (replacing PM Dec. 11/2011) published for consultation (21.2.19)
	Short-Term (end of 2019):	Wind : Circular to implement Dec. 39/2018	Completed	MoIT Circ. 2/2019 with revised PPA for Wind published (28.02.19)
Topic 2	→Improvement of the solar rooftop incentive mechanism Overcome investment barriers in the solar PV rooftop sector and mobilize private (residential rooftop) and private sector (commercial-industrial rooftop) investment potentials.			
Revise the existing net metering scheme (Dec. 11/2017/QĐ-TTg and related MoIT's Circular 16) to overcome the existing barriers (taxation).	Short-Term (end of 2019):	Revision of PM Dec. 11/2017 and MoIT Circ. 16/2017	Completed	PM Dec. 2/2019 amending Dec. 11/2017 published (8.1.19) changing net metering to FIT mechanism. MoIT Circ. 5/2019 amending Circ. 16/2017 published (11.03.2019).
Maintain investment incentive for solar Rooftop projects.	Short-Term (end of 2019):	Solar FIT 2 for rooftop: New PM Dec. and MoIT Circ. (replacing Dec. 11/2011 and Circ. 16/2017)	Ongoing	MoIT draft Solar FIT 2: new PM Dec. (replacing PM Dec. 11/2011) published for consultation (21.2.19)

TWG 1 Policy Recommendations – Monitoring of Progress

Topic 3 → Develop future wind and solar support mechanisms [including auctioning] Develop a future procurement framework for renewable energies that limits barriers for project development and gives long-term investment security.				
Develop the future procurement framework for renewable energies along the guiding principles of harmonization and streamlining of the regulatory framework, non-discrimination of RE technologies against other technologies, long-term compatibility with the Viet Nam Wholesale Electricity Market, compatibility with the specific Vietnamese market and public-sector environment, long-term signaling for investors and specificity of policy instruments for different RE projects or market segments.	Short-Term: (end of 2019)	Revision of solar support mechanism (Dec.11/Cir.16)	Ongoing	PM Dec. 39/2018 on revised Wind-FIT issued (10.09.2019). MoIT draft Solar FIT 2 (revision of PM Dec. 11/2011) published for consultation (21.2.19)
	Medium-Term: (end of 2020)	Development of auctioning pilot for solar/wind	Ongoing	Development of auctioning pilot programme
	Long-Term (post-2020)	Further development of other incentive mechanisms for RE (VWEM, RPS, DPPA, etc.)	Ongoing	Development of pilot DPPA (ERAV/USAID) Development of VWEM (ERAV/WB) Development of RPS scheme (EREA/USAID)

TWG 1 Policy Recommendations – Monitoring of Progress

Topic 4 → Integration of fluctuating renewable energy in the national grid Implement measures that assure the necessary absorption capacity of the national power grid (in time and amount) to allow large-scale wind and solar generation development.				
Develop and implement a transparent and comprehensive RE project approval process.	Short-Term (end of 2019)	Revise process of including RE projects to Power Plan (PDP)	Ongoing	Completed for wind: new procedures for Wind power project development (MoIT Circ. 2/2019, 28.02.2019). Ongoing for solar: New MoIT Circ. for solar project development (replacing Circ. 16/2017) will include guidelines from new MPI Planning Law (upcoming MPI Circular/Decree on implementation of new Planning Law)
Invest in grid expansion considering potential future RE development	Medium-Term (end of 2020):	Align RE capacity planning and grid planning in PDP VIII	Ongoing	Ongoing PDP 8 development Ongoing MoIT/EVN grid expansion projects
Designate zones for RE (e.g. in line with the auction strategy)	Medium-Term (end of 2020):	Zonal approaches in FIT mechanisms or designated zones for RE auctioning	Ongoing	For Solar: Zonal FIT in draft: Solar FIT 2 (draft PM Dec. replacing Dec. 11/2017)
Increase the frequency of national PDP updates and align grid and RE capacity planning.	Medium-Term (end of 2020):	Develop new PDP (in line with new Planning Law)	Ongoing	Implementation of new MPI Planning Law: Upcoming MPI Circular on implementation of new Planning Law
Review the grid codes for utility-scale RE and rooftop solar projects.	Short-Term (end of 2019):	Review grid codes for utility-scale RE and rooftop solar	Ongoing	MoIT/ERAV Circular 25/2016/TT-BCT (Regulations for transmission system) and MoIT/ERAV Circular 39/2015/TT-BCT (Regulations for distribution system) currently under revision (first draft expected by end of May) Preliminary revision of Circ. 25 and 39 under consultation, to be published soon (March/April)

Discussion: Key Questions

Progress

- Which policy recommendations have been fully implemented? What have been the driving factors (including special commitment from the government, donor support, etc.)?
- Which policy recommendations are progressing well? What is the status? What have been the main factors driving this progress (including special commitment from the government, donor support, etc.)?

Challenges

- Which policy recommendation are progressing only very slowly or have not progressed at all? What are the main challenges/bottlenecks impeding progress?
- Which actions are required to advance those policy recommendations?

Outlook

- Are all the policy recommendations still relevant? Those that are not, why?
- Are there any new developments that require the addition of new policy recommendations?
- Which new developments, which could potentially have a positive/negative impact on specific policy recommendations, must be taken into account?
- Are there any new DP (or other stakeholder) programmes/projects foreseen for the next reporting period that will contribute to the implementation of the policy recommendations (projects/activities in the pipeline)?

Outlook Topics for Future Work of TWG 1

- **Renewable Energy**
 - Development of further **FITs – bioenergy** (biomass, biogas, Waste-to-Energy)
 - Support framework for **Rooftop Solar**
 - Regulatory Framework for **off-shore wind energy**
 - Further development of the **procurement framework /support mechanisms** (auctioning, Renewable Portfolio Standards, etc.)
 - **Dual-Use approaches** of energy and agricultural production (Agri-PV)
- **Grid integration of RE**
- **Planning of RE development / grid development (PDP 8)**
- **Further topics...?**

Objective: Clear “division of labor” between the TWGs (e.g. regulatory aspects of market access in TWG 3 – Power Sector Reform)

Topics for Future Work of TWG 3 Power Sector Reform

Regulatory challenges for developing a competitive power market

- Wholesale electricity market status and next steps
- Pathways towards retail market development
- Development of commercial frameworks (PPP law, DPPA, Auctions, etc.)
- Purchase tariff setting mechanisms on supply side
- Long-term contracts vs. spot market, generation and ancillary services
- Contracted capacity evacuation and VRE integration challenges
- Retail tariff mechanisms on demand side (consumer categories, incremental blocks)
- Evolution of tariff design (MYTO, time-of-use, e-mobility, etc.)
- Comprehensive communication plan for tariff

Closure of the Meeting

Mr. Nguyễn Ninh Hải, Director of Renewable Energy Division, ERAV/MOIT

Dr. Sebastian Paust, Head of Development Cooperation, German Embassy





**Update on current market and policy development on
Renewable Energy**



Mr. Nguyễn Ninh Hải, Head of RE Division

CONTENT

1. Update on current development
2. Update on policy development
3. Q&A

1. Update on current development

End 6/2019, total installed capacity:

- 4.442 MW ground-mounted solar pv and about 150 MW solar rooftop
- 303 MW windpower
- 342 MW biomass power
- 10 MW waste to power

2. Update on policy development

- **Solar PV**
 - First submission on 03 May
 - Second submission on 18 June
 - Third submission on 19 Sept
- **Biomass power**
 - Collecting inputs/comments on MOIT website and official document to 63 provinces and line ministries
- **Waste to power**
 - Working with GIZ to prepare Summary report on implementing PM Decision 31/2014
- **Competitive Auction**
 - Working with WB and ADB



Thank you



Ministry of Industry and Trade
Electricity and Renewable Energy Authority

Study on RE Integration in the Southwest area (Phase 1 - covering 5 provinces of Ca Mau, Bac Lieu, Soc Trang, Ben Tre and Tra Vinh)



Hanoi, August, 2019

Implemented by **giz** German Institute for
International Cooperation
in Energy Research and Technology

Overview of RE sources in the Southwest region



- The Southwest area is a flat peninsula bordered by the sea to East, South and Southwest. Coastal wind speed is approx. 6-7m/s at height of 80 - 100m.
- According to recent wind survey data of international organizations, coastal Southwestern provinces (including Ben Tre, Tra Vinh, Soc Trang, Bac Lieu and Ca Mau) have a large potential for wind power development.
- Bac Lieu 1 and 2 Wind Power Plants (99.2MW) are operationalized, providing around 230 million kWh/year.
- Trung Nam Tra Vinh Solar Power Plant with capacity of 165Mwp has started operation in June 2019.
- The above 5 provinces have developed their Provincial Wind Power Plan towards 2020 and outlook to 2030

Status of approved/ additional RE projects in 5 provinces

No.	Name	Additionally incorporated in the Plan (*)		Being submitted for incorporation into the Plan (Jul 2019)		Being submitted for incorporation into the Plan (Jan 2019)	
		Nos. of project	Capacity (MW)	Nos. of project	Capacity (MW)	Nos. of project	Capacity (MW)
1	Ben Tre	6	180	12	1,255	9	360
2	Tra Vinh	8	483	10	1,950	6	660
3	Soc Trang	11	409	14	1,238	11	731
4	Bac Lieu	6	401	15	3,804	10	1,704
5	Ca Mau	5	550	6	1,200	5	900
	Total	36	2,023	57	9,447	41	4,355

Objectives of the Study

The first phase of the Study focuses on 5 Southwestern provinces (including Ca Mau, Bac Lieu, Soc Trang, Ben Tre and Tra Vinh), aiming at:

1. Evaluating the capability of evacuating power generated from approved RE projects in these 5 provinces (2,000 MW)
2. Evaluating the capability and options of power evacuation for RE projects being submitted for incorporation into the Plan in 5 provinces (capacity of 4,300 MW as of January 2019) based on the scenarios: (i) Update of progress of grid projects to be operated in 2021, (ii) Earlier start of transmission grid projects approved in PDP7 in the period 2021-2025 to put them into operation in 2021-2022.
3. Proposing solutions to evacuate RE capacity of 6,300 MW in 5 provinces.

EREA and GIZ have jointly organized a workshop on 30 August 2019 in Can Tho city to announce results and ask for consultation on the inception report of the first phase.

Main Outputs

1. To structure the power grids of 5 provinces to 2021 to ensure delivery of 2,000 MW of RE capacity approved to be incorporated into the Plan which requires improvement of the transmission capacity of the 110kV Bac Lieu - Vinh Trach Dong - Thanh Tri - Soc Trang line to split-phase 2xACSR185.
2. To limit RE capacity absorption of the whole region to 2021 of ca. 3,650MW (criterion N-0 for transmission grid) and of 3,000 MW (criterion N-1 for transmission grid).
3. To evacuate the RE capacity of 6,300 MW including 2,000MW approved and 4,300MW under submission for incorporation into the Plan which requires to accomplish 7 500kV grid projects, 12 220kV grid projects and 5 110kV grid projects with total investment cost of about 9,628 billion dong (of which additional grid projects proposed to be incorporated in the Plan accounts for 7,723 billion dong).

EREA and GIZ have jointly organized a workshop on 30 August 2019 in Can Tho city to announce results and ask for consultation on the inception report of the first phase.

Main Outputs

- The next phase of the Study will cover 22 Southern provinces of Viet Nam.
- Results of the Study phases will be taken into consideration and incorporated during the development of PDP8.

Thank you for your attention