

## Vietnam Energy Partnership Group

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**Event:** First meeting of TWG 3 on Energy Sector Reform  
**Date:** 30 May 2018  
**Location:** ERAV, meeting room 502, D10 Khat Duy Tien, Hanoi  
**Time:** 14:00 – 16:30  
**Participants:** see lists of participants and invitees in Annex 1.

### Chair and Co-chair of TWG#3:

- Mr. Pham Quang Huy - Chair of TWG3 on Energy Sector Reform, ERAV, MOIT
- Mr. Franz Gerner - Co-chair of TWG3 on Energy Sector Reform, Lead of Energy Specialist and Energy Cluster Leader for Vietnam, the World Bank.

### Meeting objectives:

1. To exchange views on challenges for Power Sector Reform development in Viet Nam, main focus on power market development
2. To agree the 2018 workplan of TWG 3

**Meeting agenda:** Attached as Annex 2

**Meeting inputs:** Attached as Annex 3 Presentation on Energy Sector Reform Development in Viet Nam including proposed TWG 3 work plan

**Meeting minutes:** Attached as Annex 4

### Action points:

Action	Responsibility
1. Approve report of the first TWG 3 meeting	Chair & Co-Chair
2. Send report of the meeting to all TWG 3 members (invited plus those who attended)	Secretariat
3. Update list of (core and non-core) Members	Secretariat with direction from Chair & Co-Chair
4. Update the project survey with specific focus on TWG 3 themes	Secretariat
5. Donors that support PDP8 formulation should meet together (PDP8 is EREA responsibility, not ERAV)	Secretariat to support DPs
6. Consult with Members on their leadership and/or “in-kind” human resources and specific actions towards a priority theme, and products/outputs and actions that should be linked to TWG 3 and “piggy back” on ongoing activities; and consolidate workplan 2018	Secretariat with direction from Chair & Co-Chair
7. Identify inputs into forthcoming TWG 3 meetings, within the proposed and agreed themes / focus of these meetings	Chair & Co-Chair with key members and Secretariat
8. Submit work focus and work plan 2018 to the Steering Committee of the VEPG	Chair & Co-Chair with Secretariat
9. Invite Members to express interest in access to the TWG 3 E-library, and to share references through the E-library	Secretariat
10. Next TWG 3 meeting to be planned in October or early November. This plan could be changed according to SC and HLM schedule.	

**Annex I: LIST OF PARTICIPANTS**

No.	Organization (English)	Name	Title (English)
<b>DPs' confirmed to participate Energy Sector Reform TWG</b>			
1	DENMARK	Tran Hong Viet	Senior Programme Manager, Climate Change & Energy Efficiency, Green Growth, Joint Declaration on Climate
2	DENMARK	Jakob Stenby Lundsager	Long Term Adviser Danish Energy Partnership Programme in Viet Nam
3	Newzeland	Mr. Tom Wilson	Head of New Zealand Aid Programme in Viet Nam
4	EU DEL	Cecile LEROY	Attaché - Cooperation Officer - Budget Support and Blending Operations
5	EU DEL	TRAN THUY Duong	Program Officer - Energy
6	Australia	Justin Baguley	Counsellor (Economic and Development Cooperation)
7	US Embassy	Representative	N/A
8	USAID	Christopher Abrams	Director, Environment and Social Development
9	AFD, French Development Agency	Fabio GRAZI	Head of Infrastructure Unit
10		Nguyen Thanh Thanh An	
11	World Bank	Mr. Franz Gerner	Lead of Energy Specialist and Energy Cluster Leader for Vietnam
12		Chu Ba Thi	Energy specialist
13	ADB	Ms. Hyunjung Lee	Energy Economist
14	German International Cooperation, GIZ	Mr. Ingmar Stelter	Programme Director Vietnam Energy Support Programme
15		Mr. Tobias Cossen	MOIT/GIZ Energy Support Programme Smart Grids for Renewable Energy and Energy Efficiency (DKTI) /Principal Technical Advisor / Head of Project
		Jonas Hagemann	
16	German Development Bank, KfW	Daniel Plankermann	Energy Sector Coordinator
<b>Vietnamese Ministries and SOE</b>			
17	Electricity and Renewable Energy Authority (EREA)	Representative	
18	EVN	Representatives	
19	NLDC	Representatives	
<b>ERAV</b>			
20		Nguyen Quang Huy	Chair / Deputy General Director ERAV
21		Le Anh Duc	Head of International Cooperation and Education Centre
22		Le Van Dung	
<b>VEPG Secretariat</b>			
23	EU TAF for SE4All Project	Koos Neefjes	Energy Planning & Policy Non-Key Expert Assignment Leader VEPG
24	EU TAF for SE4All Project	Nguyen Anh Tuan	Coordinator, Energy Planning & Policy Expert
25	EU TAF for SE4All Project	Ngo To Nhien	Administrative and Organisational Support

## Annex II: Agenda first TWG3 meeting

**Date:** 30 May 2018, 14:00-16:30

**Venue:** Meeting room, ERAV office (D10 Khat Duy Tien, Thanh Xuan, Hanoi)

**Objectives:**

1. To exchange views on challenges for Power Sector Reform in Viet Nam
2. To agree the 2018 workplan of TWG 3

**Chair / Co-Chairs**

- Mr. Pham Quang Huy, Deputy Director General of ERAV, Ministry of Industry and Trade (MOIT)
- Mr. Franz Gerner, Principal Energy specialist, World Bank office in Hanoi

**Participants invited**

- Officials / experts from MOIT and other Ministries
- Experts of Development Partners (VEPG members)
- Experts of EVN and investor associations
- Researchers on Energy sector
- Other stakeholders working on Energy Sector reform

**Provisional Agenda**

Time	Subject
2:00 - 2:30	Registration
2:30 - 2:45	<b>Opening remarks, overview of the agenda</b> <ul style="list-style-type: none"><li>• Mr Pham Quang Huy</li><li>• Mr Franz Gerner</li></ul>
2:45 - 3:00	<b>Terms of Reference of the TWG</b> <ul style="list-style-type: none"><li>• Secretariat: Presentation</li><li>• Q&amp;A</li></ul>
3:00 - 3:30	<b>Overview of Power Market Development and Challenges</b> <ul style="list-style-type: none"><li>• ERAV representative: Presentation</li><li>• Q&amp;A</li></ul>
3:30 - 4:00	<b>TWG3's Work plan for 2018</b> <ul style="list-style-type: none"><li>• Secretariat: Presentation</li><li>• Q&amp;A</li></ul>
4:00 - 4:15	<b>Plenary discussions</b> <ul style="list-style-type: none"><li>• All participants</li></ul>
4:15 - 4:30	<b>Conclusions, agreements, closing remarks</b> <ul style="list-style-type: none"><li>• Mr Pham Quang Huy</li><li>• Mr Franz Gerner</li></ul>

**Annex 3 Presentation on energy / power sector reform in Viet Nam including proposed TWG 3 work plan**

**MINISTRY OF INDUSTRY AND TRADE  
ELECTRICITY REGULATORY AUTHORITY OF VIETNAM**

**ELECTRICITY MARKET REFORM AND  
CHALLENGES IN VIET NAM**

**Presenter: ERAV Representative**

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## Contents

- Overview
- Implementation

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# OVERVIEW

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## Power Sector Administration

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graph TD
    MOIT[MOIT] --> ERAV[ERAV]
    MOIT --> EREA[EREA]
    ERAV --> EVN[EVN]
    EREA --> EVN
    EVN --> G[G]
    EVN --> NLDC[NLDC SMO]
    G --> TC[TC]
    NLDC --> TC
    IPP[IPP] --> TC
    G_e[G-e] --> TC
    TC --> DC[DC]
    DC --> C[C]
    D_e[D-e] --> DC
    D_e --> C
    
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MOIT – Ministry of Industry and Trade

ERAV – Electricity Regulatory Authority of Vietnam

EREA – Electric Power and Renewable Energy Authority

EVN - Electricity of Vietnam

NLDC – National Load Dispatch Centre

IPP – Independent Power Producer

G – EVN Owned Generation Companies


G-e – Equitized Generation Companies

TC – Transmission Companies

DC – Distribution Companies

D-e – Equitized Distribution Companies

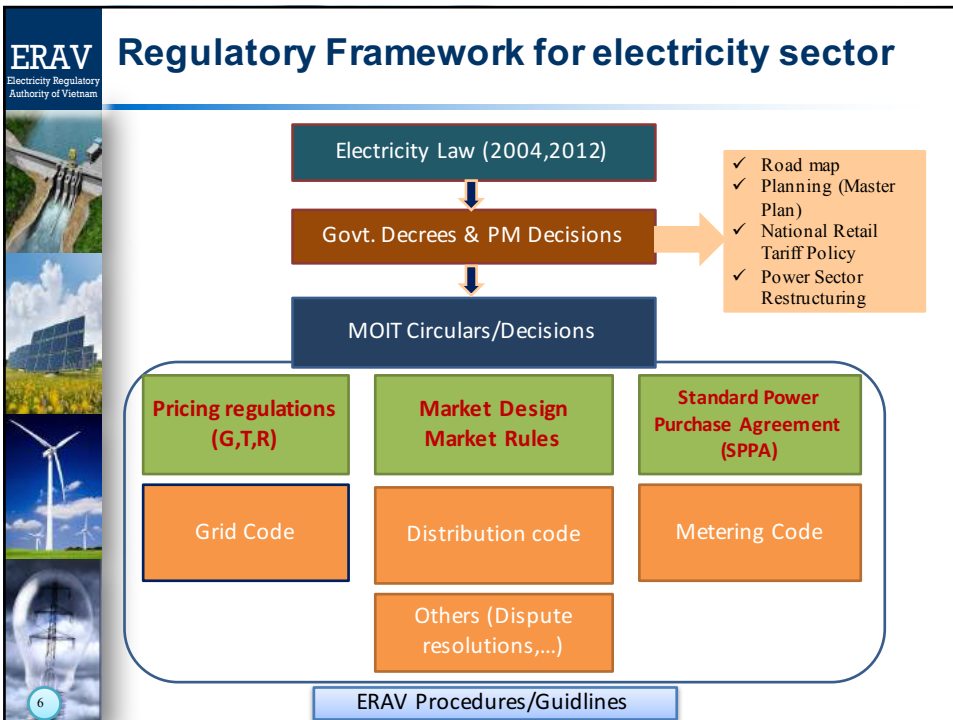
C - Consumers




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## ERA's Functions

- Power Market Development and Regulation.
- Electricity Price Setting & Regulation
- System Adequacy Monitoring
- Electricity Activity Licensing
- Inspection and Dispute Resolution
- Others
  - International cooperation in electricity regulation and power market development
  - Training and human resource development










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## Electricity Law

- Electricity Law 2004, Law amending and supplementing a number of articles of the Electricity Law 2012 setting some key principles for development of electricity markets in Viet Nam:
  - Improving transparency, fairness and competition for raising efficiency in electricity activities;
  - Attracting investor to participate in electricity generation, distribution, wholesale, retailing.
  - The State holds monopoly in the activities of:
    - Transmission,
    - System and market operation
    - Construction and operation of big power plants of particularly important socio-economic, defense or security significance.

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## Road map

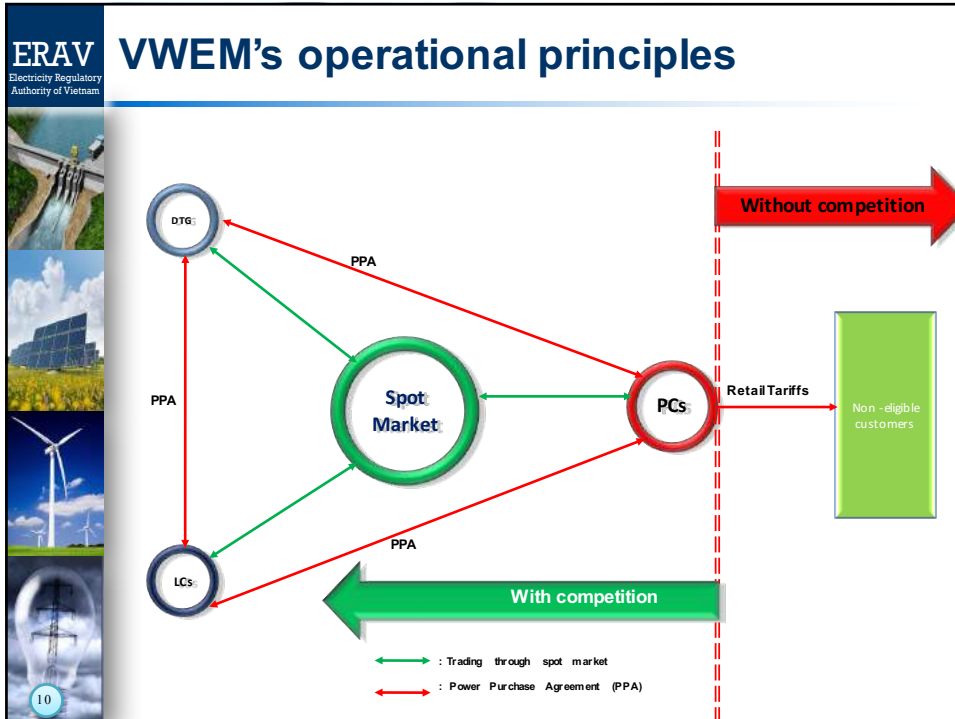
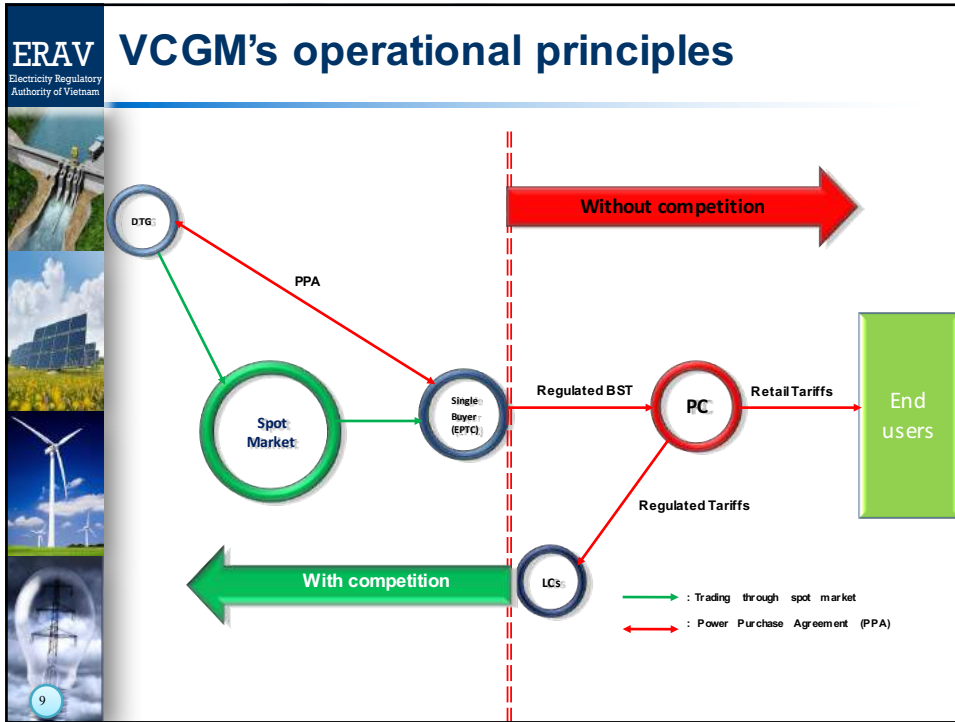
• Prime Minister’s Decision No 63/2013/QD-TTg (dated 08/11/2013) replaced the former (PM decision 26/2006/QD-TTg dated 26/01/2006)

Competitive Generation Market (VCGM)	Electricity Wholesale Market	Electricity Retail Market		
	2015	2017	2021	2023
	Pilot Operation		Full Operation	
		Pilot Operation		Full Operation

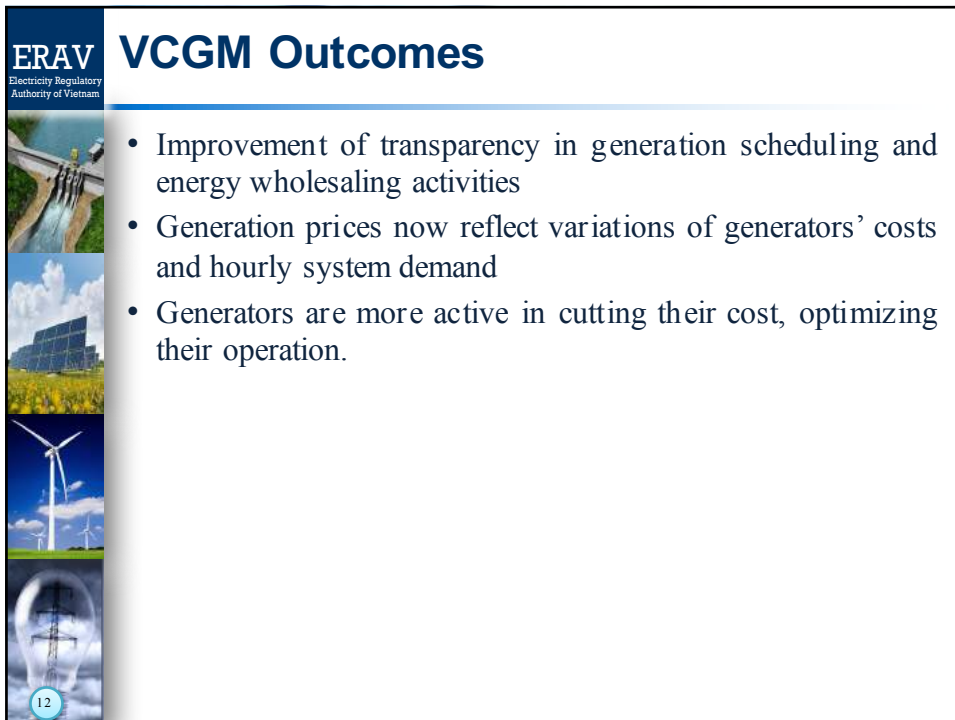
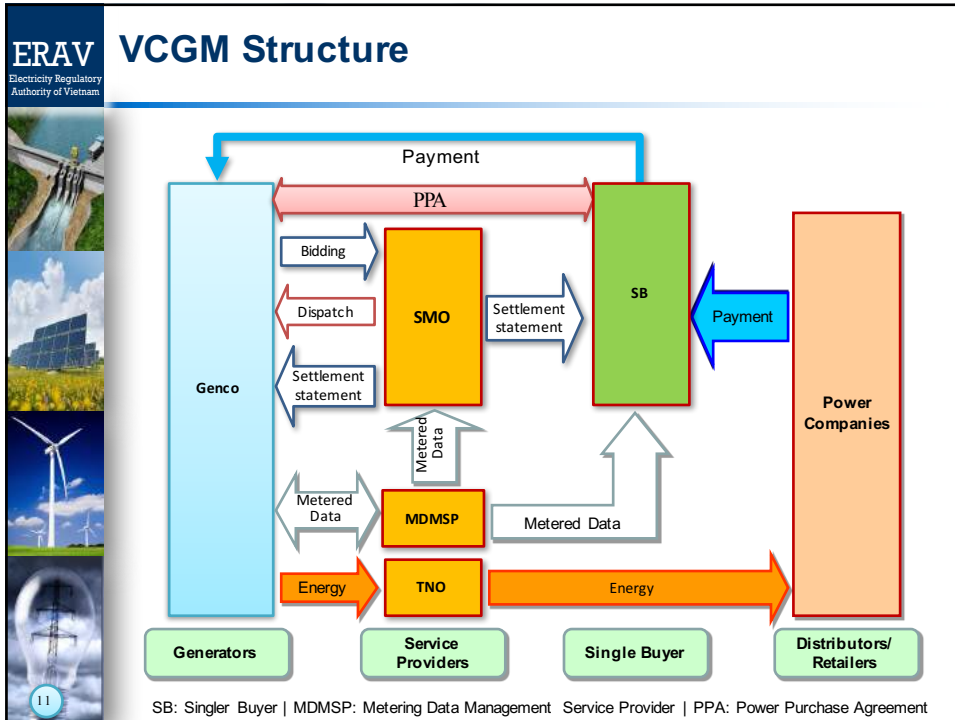


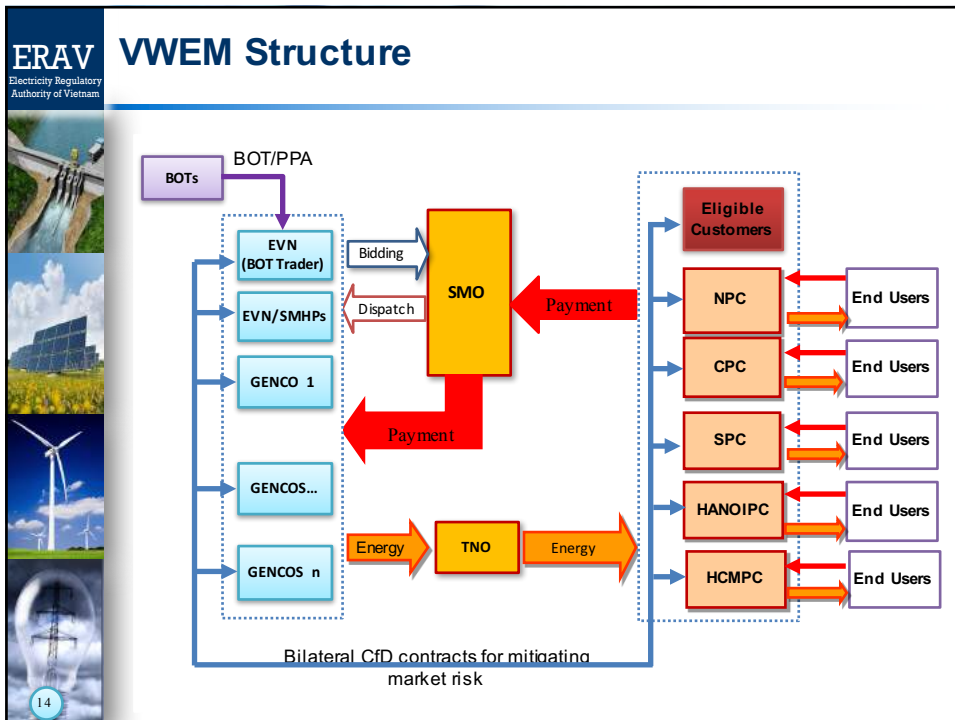
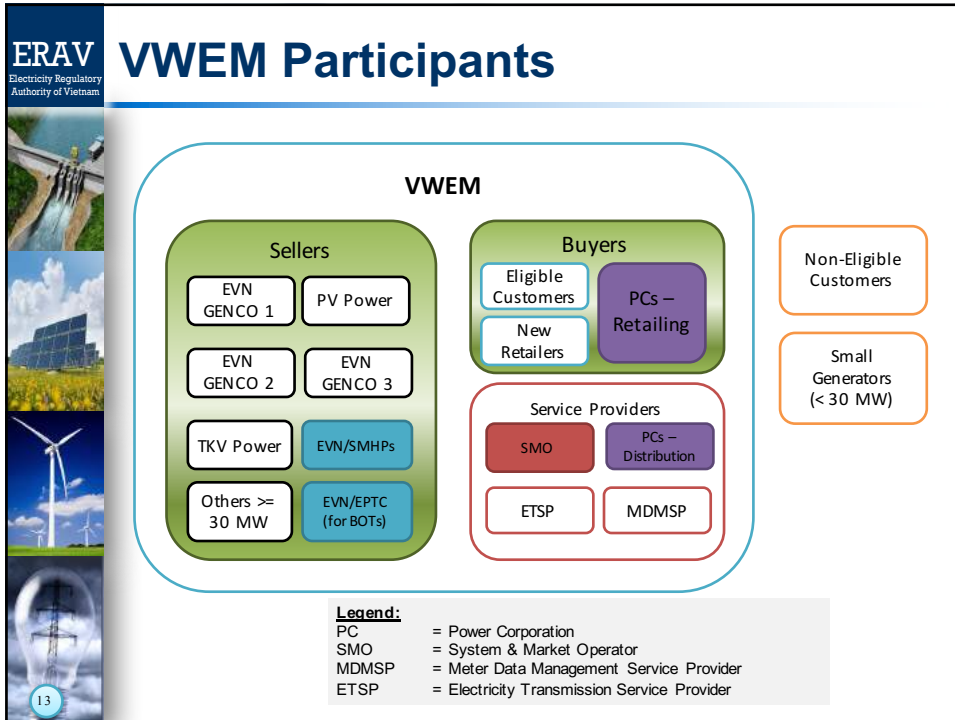






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## Spot Market (1)

- Market model: Mandatory Cost-Based Gross Pool
  - All generators ( $\geq 30$  MW) must directly participate in the market (as sellers) for selling their energy
  - BOT power plants:
    - Directly participating in the VWEM; or
    - Participating in the VWEM via a BOT Trader (under EVN)
  - Strategic Multipurpose Hydro Power Plants (SMHPs):
    - Directly participating in the VWEM; or
    - Participating in the VWEM via a SMHP Trader under EVN
  - All retailers (05 Power Corporations) must buy energy from the market for meeting their customers' demand
  - Large customers connected to transmission network at minimum voltage level of 110 kV can be allowed to participate in the VWEM.
- Gradually transitioning from Cost-Based Pool to Price-Based Pool model





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## Spot Market (2)

- Trading interval: 30 minutes
- Dispatch interval: 30 minutes
  - Will be shortened when the full market IT system allows
- Bidding interval:
  - Day-ahead bidding (for the next 48 trading interval)
  - Intra-day rebidding interval: 06 hours
- Generation offer:
  - Day-ahead bidding and intra-day rebidding
  - 10 bands of price ((đ/kWh) and quantity (MW) for a trading interval)
- Demand bidding:
  - Pump-storage;
  - Interruptable load (bidding for providing reserves)










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## Spot Market (3)





- Generation scheduling:
  - Security constraints optimization.
  - Applying the model of full transmission network simulation when the full market IT system allows
- Market Pricing: Ex-post SMP
  - Transferring to ex-ante nodal pricing model (at least 03 nodes) when the full market IT system allows
- Ancillary Services:
  - Frequency control ancillary services: co-optimizing energy and frequency control ancillary services.
  - Other ancillary services: SMO enters to contract with ancillary services providers.











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## Contract Arrangement (1)

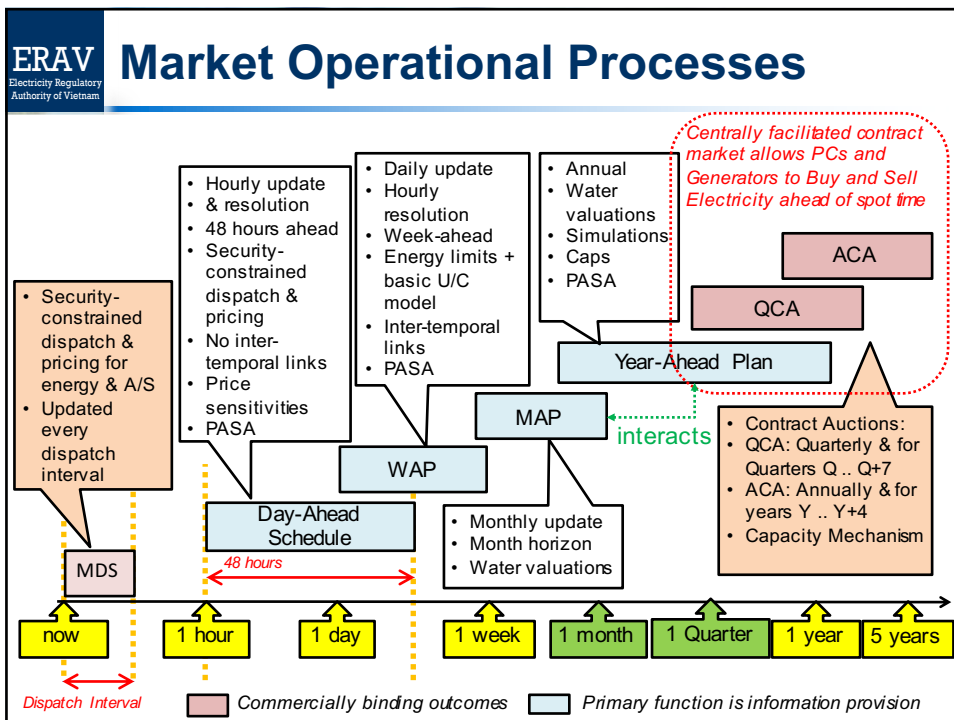
- Key objectives:
  - Largely manage the financial risks of generators and customers (LC and PCs)
  - Manage market power of generators
  - Facilitate the market entry of new generators
- 03 types of contracting in the VWEM:
  - Vesting contracts – allocated once
  - Bilateral contracts – willing sellers & buyers
  - Centrally contract auction cleared by SMO










## Contract Arrangement (2)

- Vesting contract: is to allocate the existing CfD contracts between generators and EVN/EPTC to PCs
  - Average contract purchasing cost of a PC is equivalent to other PCs.
  - Strike price and contract quantity match forecasted load profile of PC's customers and comply with the constraints specified in generator's contract.
  - Maintaining the commitments specified in the contract between generator and EVN/EPTC.
- Bilateral (CfD) contract: buyers and sellers negotiate and agree on strike price and contract quantity.
- Centralized contract auction:
  - Voluntary for VWEM's buyers (PCs) and sellers (generators)
  - Managed by SMO (or an independent operator)
  - Auction is held quarterly and annually for PCs and Generators to buy and sell electricity ahead of spot time



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**IMPLEMENTATION**


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### VWEM Implementation

Stages of VWEM implementation:


- 2016: Pilot VWEM Step 1 (Paper Market)
- 2017-18: Pilot VWEM Step 2
- 2019: Full VWEM (MOIT Decision No. 8266)
- Beyond 2019: Long Term VWEM








Preparation      VWEM Pilot Step 1      VWEM Pilot Step 2      Initial / Full VWEM      Long Term VWEM


2015      2016      2017-18      2019      Beyond 2019


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 <b>Reform Progress</b>	
Year	Key events
2004	Electricity Law was passed
2005	Electricity Regulatory Authority of Viet Nam (ERAV) was established
2006	Road Map for competitive electricity market was approved by Prime Minister for the first time (Decision 63/2006/QĐ-TTg)
2008	National Power Transmission Corporation (NPT) was grouped Electric Power Trading Company (EPTC under EVN) was born to play function of Single Buyer
2009	Market design of Viet Nam Competitive Generation Market (VCGM) has been approved by Ministry of Industry and Trade (MOIT)
2010	5 Power Corporation (PCs)(Distribution and Retail) were established VCGM market rules was issued
2011	1 <sup>st</sup> July 2011, VCGM Paper Market was run as trial
2012	Since 1 <sup>st</sup> July 2012, VCGM was officially launched.
2012	EVN generation was restructured into three 3 EVN GENCOs (legal independent)
2014	Conceptual Design of Viet Nam Wholesale Electricity market (VWEM) was approved
2015	Detailed Design of VWEM was approved
2016	Paper VWEM was run
2017	VWEM Rules are under development (Completed version 3) Paper VWEM run with two scenarios of contract allocation
2018	VWEM trial (Real settlement) Addressing key challenges and accomplishing preparation for Official VWEM 2019

 <b>Implementing Tasks</b>	
   	<ul style="list-style-type: none"> <li>• Restructuring           <ul style="list-style-type: none"> <li>○ Prime Minister's Decisions: 63/2013/QĐ-TTg dated 08/11/2013, 168/QĐ-TTg dated 07/02/2017, 852/QĐ-TTg dated 14/06/2017</li> <li>○ EVN submitted proposal on ring-fencing and separation between power corporations' distribution and retail functions</li> <li>○ EVN preparing proposal on transform of National Load Dispatch Centre (NLDC) to System and Market Operation Company (SMO) independently accounted from EVN. MOIT expected to submit to Prime Minister for approval in 2018.</li> </ul> </li> <li>• Legal Framework           <ul style="list-style-type: none"> <li>○ Market Rules</li> <li>○ Contract Allocation</li> <li>○ Cross-subsidy Mechanism</li> <li>○ Tax treatment...</li> </ul> </li> <li>• ICT Infrastructure           <ul style="list-style-type: none"> <li>○ VWEM IT Conceptual Design: MOIT Decision 2760/QĐ-BCT dated 30/6/2016</li> <li>○ Under preparation by EVN and related parties</li> </ul> </li> <li>• Training           <ul style="list-style-type: none"> <li>○ Training requirements: MOIT Decision 14576/QĐ-BCT dated 3/12/2015</li> <li>○ Basic: completed in 2017</li> <li>○ Advanced: ongoing process (by 2019)</li> </ul> </li> </ul>



 <b>Completed Technical Assistances</b>			
Ref	TAs	Sponsor	Period
1	Distribution Efficiency Project” (DEP) - “Technical Assistance and Capacity building for ERAV	Australia Government through WB	2/2013 - 6/2016
2	Development of detail design for wholesales electricity market of Vietnam	AFD	1/2014 - 9/2015
3	Support for development of VCGM in Vietnam	DOS/ENR	2015 -2016
4	Development of wind power connection regulations and integrated RE research	USTDA	2013-2014
5	Resident advisor for Vietnam Power Market Development	Asian Development Bank	10/2014 - 12/2015
6	Development of procedures to improve transparency in pricing process	KfW	2016
7	Establishing the Wholesale Electricity Market - TA8851	Asian Development Bank (ADB);	2015 - 2017

 <b>Implementing TAs</b>				
No	TAs	Sponsor	Objectives	Period
1	Policy and Advisory Technical Assistance for Power Sector reform program - PATA 9012	Asian Development Bank (ADB);	Developing VWEM's contract arrangements; providing advices on prudential requirements, tax treatments in VWEM; providing resident advisor for other issues	2017 - 2019
2	Direct Power Purchase Agreement (DPPA)	USAID	Creating a new mechanism for promoting RE development; allowing enterprises to access to buy clean energy	2017 - 2018
3	Smart Grids for Renewable Energies and Energy Efficiency	BMZ/GIZ	Increasing the of regulatory, methodological and technological capacity on Smart Grids for RE and Energy Efficiency Readiness.	2018 - 2021
4	Capacity Development for RE Integration into power system	Danish Climate Envelope	Enhancing the capacity in (i) forecasting of load and RE generation; and (ii) calculating needs for ancillary services	2018 - 2020
5	Viet Nam VWEM Development	MFAT, NZ	Providing advices on developing the suitable tool and in-house skills for its use in market monitoring, analysis and development	2018




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## Support-needed Tasks

- Market Design
- Integration of RE sources into the competitive electricity market
- Enhancing Electricity Regulatory Authority's capacity in market monitoring
- Financial contract trading mechanism (smart contract auction/contract exchange...)
- Financial transmission right (FTR) mechanism (when move to zonal/locational market pricing model)
- Enhancing SMO's capacity market and system operation.

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**Annex 4 Meeting Minutes**

**Event:** First meeting of TWG 3 on Energy Sector Reform  
**Date:** 30 May 2018  
**Location:** Meeting room 5<sup>th</sup> floor, ERAV, D10 Khat Duy Tien, Hanoi  
**Time:** 14:00 – 16:30

**Meeting minutes:**

<b>Agenda item</b>	<b>Summary</b>
<b>Opening remarks</b>	<p><u>The Chair</u> opened the meeting, welcomed participants</p> <p><u>Co-Chair</u></p> <ul style="list-style-type: none"> <li>• Remarkable progress was made on power sector reform, which the WB believes has been very successful. But it must continue, with committed referring to competitive wholesale market by 2021</li> <li>• Several DPs have provided TAs, also financing (policy operations)</li> <li>• Public debt means that support has been put on hold, as we are getting to the stage of the competitive wholesale power market. ERAV and DPs should determine areas where we can help further referring to functions on power sector reform</li> </ul>
<b>TOR of TWGs</b>	<p><u>The Secretariat</u> shared the updated generic TOR of TWGs</p> <ul style="list-style-type: none"> <li>• No comments from Chair, co-Chair or members</li> </ul>
<b>Presentation on “Electricity Market Reform and Challenges in Viet Nam”</b>	<p><u>ERAV presented and clarified several questions from several TWG members:</u></p> <ul style="list-style-type: none"> <li>• ERAV’s functions, structure of power market and Regulatory Framework for electricity sector in Vietnam. ERAV was established following the electricity law</li> <li>• From 2019 full Vietnam wholesale electricity market (VWEM) will be achieved. There is some delay compared to this plan; several issues are out of our control, such as cross subsidies. From 2023 the plan is a full retail market, in which customers can choose their supplier. Draft market rules were and will be published on line, still to be finalised</li> <li>• There is still cross-subsidy between the 5 power distribution corporations (PCs in Hanoi and HCM City, North and Centre and South), and we need a cross subsidy mechanism across power corporations. Now have 3+2 corporations with different categories of customers. Hanoi and HCMC are condensed and they have major comparative advantages. But we need to maintain a unified tariff system, which is a challenge.</li> <li>• Paper pilot market was done in 2016 and 2017. The 5 power corporations have to understand the contracting matters, how it works. They learn how to settle in the market. Based on existing rules. In 2017 we did 2 scenarios: First: all existing contracts, i.e. nearly the full market to make sure that they would have the equivalent average contract costs. Second: with 10 existing contracts. We then looked at the results of these 2 scenarios. But it was a paper market, not precise because behaviour maybe not as serious as in the real market. ERAV can use the result to apply for the Pilot VWEM Step 2. In 2018 only two power plants (Phu My 1 and 4), export 5% to the market with the market mechanism. If a mismatch or error, it can cost money as it is real payments and managers become more serious. Now they look at forecast and errors only 1-2 % so that is very good. Metering is very challenging, but now 30 min intervals is working. So, in the future we can go to 30 min markets. National Load Dispatch Centre collects data of</li> </ul>

	<p>electricity sale to market and compares with data owned by EVN / power producers. If the data match, then ERAV don't need to clarify with generators. The National load dispatch centre (NLDC) have the total data, including metering data. But some parties buy and must supply data to the national load dispatch centre. NLDC is assigned to collect the data and must become independent of EVN. In the wholesale market the metering systems are complicated. The Circular 42 assigns the transmission to the National Power transmission company (NPT). Collection of transactions with the 5 PCs is responsibility of PCs. And then there is NLDC, so there are 7 entities responsible for collecting data, which is complicated.</p> <ul style="list-style-type: none"> <li>• We have 6 years of experience spot markets. We open up for wholesalers and big customers who are ready to buy from the spot market. How to set up and break down the position of the single buyer is a challenge; we have discussions with EVN, we have scenarios, options. A proposed decision will be given to the minister very soon. If minister accepts we can put into operation in 2019. This for the big-enough customers who connect to 110 kV: more than 100 are eligible / potential customers. Customers 110kV and above can be in the spot market if they meet technical criteria. Regarding to IT infrastructure for billing and balancing, MOIT took a decision on VWEM infrastructure, and EVN is responsible to develop the VWEM's ICT. There is a Decision by MOIT about the general structure and EVN is doing a feasibility study (FS) and bidding to buy all the components and will put into operation the billing etc system in 2019. Main concern is the market modelling system, the MMS, which may be delayed. So far that we can use the old one in 2019.</li> <li>• For the DPPA: Can trade through the market, or trade with a fixed price. Currently, the USAID doing a study on direct power purchase agreements (DPPAs), which does not involve in the spot market. We are working with USAID consultants to research and propose the most suitable model. Now two options, a physical DPPA, with direct physical PPA with the generator, and also a contract with the power corporation to pay for using T&amp;D and ancillary services in the system. The second is financial PPA, a PPA in the market. Consultant suggest the first option first and the second option later. The design is not very detailed yet. We requested the consultant to do some analysis on the gap in the legal framework and the financial flow of each model, so that the practical consequences are clear. We will finalise the DPPA model in July and after that maybe a workshop to introduce the options to all the stakeholders and seek some comments and decide which model to apply. When deciding the model, we will have to prepare the legal framework and in 2019 we would likely have a pilot for the model.</li> </ul>
<p><b>TWG3 Work plan for 2018</b></p>	<p><u>Co-Chair:</u></p> <ul style="list-style-type: none"> <li>• If there are workshops organize by ERAV or projects, please invite the members of TWG 3 to participate to all the workshop</li> </ul> <p><u>Secretariat</u></p> <ul style="list-style-type: none"> <li>• Several agencies were invited today but could not make it, including some working on relevant matters</li> <li>• Any TWG member with a workshop should ask the Secretariat for the mailing list of the TWG 3 and we will supply</li> </ul>

- Presented the theme draft

#### Chair

- Not three TWG meetings this year, maybe there will be just two.

#### Co-Chair

- Yes, we should consider what meetings make sense.
- We have 5 donors with various activities, technical assistance and financing. We should keep the 4 areas in the theme paper. Where the donors' work fits in these pillars and all engage with that. So first, before the TWG reports to the SC we should make sure that we know what everybody is doing and bring that to the TWG. That then might deliver points for the SC. We could then also find other work that needs to be done, e.g. by the KfW or the WB.

#### Chair

- KfW always stresses RE and EE?
- We also need to learn re renewable energy (RE) in the market, and create favourable conditions for RE.

#### AFD

- We already provided capacity building and support for design of the wholesale market. We are creating a new grant facility, to support developing countries to implement the Paris Agreement. Need to prepare now and decide by the end 2018. That could lead to support, linked to PDP8 for example. So, for ERAV, is there a study in that sense that you need support with? Also, a study on retail tariff, important for EVN's financial health.

#### Chair

- Decision 24 was issued last year on tariff adjustment decisions. In November last year there was an increase, with a lot of argument around that. Enterprises were against; I am not sure whether the DPM statement was official, but the costs will be accounted. ERAV is responsible for that and submit to the PM and if he approves it still work according to Decision 24
- PDP8 is not responsibility of ERAV but is EREA. For low carbon programme we can work together after this meeting
- 4 donors provide funds in the context of PDP8 planning (WB, USAID, Denmark, GIZ) and must sit together.

#### GIZ

- We can find some synergy maybe in metering, ICT infrastructure. Referring to the power market - about the topics we are not sure. But we are starting the smart grid project

#### Danish Energy Agency

- We focus on power systems, not market and have planned our activities, but we can add activities and we know a bit about integrating and liberalising the power markets

	<p><u>KfW</u></p> <ul style="list-style-type: none"> <li>• There is a lot of support on different aspects: PDP, RE, also EE. We are looking forward to bringing more stakeholders together to raise awareness of the significance of the power market.</li> <li>• We are working with ADB and WB on a policy operation. A lot of work was done but that is getting lost</li> <li>• Short of money now but still happy to support RE and EE as well as the overall power market</li> </ul> <p><u>Secretariat</u></p> <ul style="list-style-type: none"> <li>• The Secretariat can update the survey specifically for the TWG 3, targeting only the selected DPs, specific questions</li> </ul> <p><u>EU</u></p> <ul style="list-style-type: none"> <li>• Some funds for specific demands could be made available</li> </ul> <p><u>WB</u></p> <ul style="list-style-type: none"> <li>• We will follow up on the KfW study on transparency of price /tariff setting.</li> <li>• We can also potentially support financial contracting</li> </ul>
<p><b>Conclusions, agreements, closing remarks</b></p>	<p><u>Chair:</u></p> <ul style="list-style-type: none"> <li>• We are seeking support for 5 themes (see below) and hope that DPs continue to support ERAV in the future. We thank the World Bank for their support and are looking for support from Donors for power market reform and hope for further exchanges with DPs to understand the targets of the different participants. <ul style="list-style-type: none"> <li>✓ <i>Market Design</i></li> <li>✓ <i>Integration of RE sources into the competitive electricity market</i></li> <li>✓ <i>Enhancing Electricity Regulatory Authority's capacity in market monitoring and SMO's capacity market and system operation.</i></li> <li>✓ <i>Financial contract trading mechanism (smart contract auction/contract exchange...)</i></li> <li>✓ <i>Financial transmission right (FTR) mechanism (when move to zonal/locational market pricing model)</i></li> </ul> </li> <li>• Next TWG3 meeting in October or beginning of November</li> </ul> <p><u>Co-Chair:</u></p> <ul style="list-style-type: none"> <li>• Look forward to further cooperation on this topic.</li> <li>• Further clarity on the TWG's cope of work, timeline etc is needed for reporting to the SC and HLM. But we should park the idea of special seminars and better to "piggy back" on existing arrangements, i.e. meetings that are already planned. We must be realistic and not add to our workload: improve participation in workshops of donors for example; the survey that the secretariat will update will be helpful.</li> </ul>