

Viet Nam Energy Partnership Group

Technical Working Group 5 – Energy Data and Statistics

Report of the 4th Meeting

Date: 26 November 2019
Location: MOIT meeting room 101, 25 Ngo Quyen, Hanoi
Time: 14:00 – 17:00

Key agenda points:

1. Presentation and discussion of draft VEIS Circular and implementation process
2. Focus topics: Energy Balance 2017 and EOR 2019 as well as PDP development
3. Update on High-Level Meeting 2019 and VEPG Progress Report

Chair and Co-Chair:

- **Mr. Nguyễn Tuấn Anh**, Director Planning Division, Electricity and Renewable Energy Authority (EREA/MOIT)
- **Mr. Jakob Stenby Lundsager**, Long Term Adviser, Danish Energy Partnership Programme, Denmark

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 – Presentations

Agreed Conclusions and Actions:

Conclusion / Decision	Action
<ul style="list-style-type: none"> The <u>Chair and Co-Chair</u> thanked all TWG 5 participants for joining and for the very active and constructive participation in the meeting. 	
<ul style="list-style-type: none"> <u>EVEF/4E project (GIZ)</u> presented its support activities to the Electricity and Renewable Energy Agency (EREA) for the development of the legal framework for the implementation of the Viet Nam Energy Information System (VEIS). Members of TWG 5 reflected and discussed on the draft VEIS Circular focusing on further DP's support for the VEIS and the data sharing requirements and provided valuable inputs for EREA EREA will consider all comments in the finalization of the VEIS Circular and highlighted that further Technical Assistance and financial support is needed for the implementation of the VEIS and related infrastructure (VEIC). 	Chair/ EREA
<ul style="list-style-type: none"> <u>The Danish Energy Partnership Programme (DEPP)</u> presented the results of the Viet Nam Energy Outlook Report (EOR) 2019 which will serve as input for the development of the PDP 8. The EOR 2019 will also be discussed at the upcoming High-Level Meeting 2019. <u>EREA emphasized that the results of the EOR 2019 will be used for the development of the PDP 8.</u> 	Chair/ EREA
<ul style="list-style-type: none"> <u>GSO</u> presented the development of the Energy Balance Table 2017 with the support from Italy. <u>EREA and GSO will further coordinate on the topic of Energy Balance and Energy Data & Statistics in general. The exchange in the TWG 5 brought valuable insights and was seen as a good opportunity for coordination.</u> 	EREA/ GSO
<ul style="list-style-type: none"> <u>The Institute of Energy (IoE)</u> introduced the process of the Power Development Plan (PDP 8) and its supporting activities. The topic of PDP 8 is a cross-cutting between different TWGs of the VEPG. The meeting suggested that a coordination workshop on this topic should be organized to leverage the full potential of the VEPG platform and its TWGs. TWG 5 will remain focal point for the PDP 8 topic. 	Chair/ Co- Chair Secretariat
<ul style="list-style-type: none"> <u>The Secretariat</u> presented the status of implementation of the TWG 5 Policy Recommendations and collected inputs from all participants on <i>Progress, Challenges, Outlook</i> for the further work of the TWG 5. Inputs will also be collected via an online survey. <u>TWG members</u> provided valuable comments and inputs which will be reflected in the draft TWG 5 Progress Report to be developed by the Secretariat in coordination with the Chair and Co-Chair and be submitted to the Steering Committee and HLM 2019. 	Secretariat Chair/ Co- Chair TWG members

<ul style="list-style-type: none"> • <u>The Chair and the Co-Chair</u> thanked all members of the TWG for the active participation and will further update members on the development of the VEPG progress report and the preparation of the HLM 2019 in coordination with the Secretariat. • <u>The Secretariat</u> will share all presentations shortly after the meeting and the Report of the Meeting upon approval by the Chair and Co-Chair. 	<p>Chair/ Co-Chair Secretariat</p>
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ANNEX 1 - AGENDA

13.30-14.00	Registration
14.00-14.10	Opening remarks, overview of the agenda <i>Mr. Nguyễn Tuấn Anh / Mr. Jakob Stenby Lundsager</i>
14.10-14.50	VEIS implementation - Draft MOIT Circular and Implementation Plan <ul style="list-style-type: none"> • <u>EREA/MOIT</u>: Presentation of draft MOIT Circular on the establishment of the VEIS and the VEIS implementation plan • <u>Plenary</u>: Q&A and members feedback/inputs for the finalization/implementation of the VEIS Circular and process
14.50-15.50	Updates on Energy Data & Statistics <ul style="list-style-type: none"> • <u>Energy Outlook Report 2019 - Presentation of key results</u> Jakob Lundsager, Danish Energy Partnership Programme • <u>Energy Balance for Viet Nam 2017- Update on the new Energy Balance</u> Representative of General Statistics Office, GSO • <u>Plenary</u>: Q&A and discussion
15.50-16.00	Coffee Break
16.00-16.30	PDP 8 – Current Development and Further Process <ul style="list-style-type: none"> • <u>Institute of Energy</u>: Input on ongoing research and work on PDP 8 • <u>Plenary</u>: Q&A and discussion with inputs from Development Partners on ongoing support on the PDP 8 development
16.30-16.50	VEPG High-Level Meeting 2019 - TWG 5 Progress and Future Work <ul style="list-style-type: none"> • <u>Secretariat</u>: Update on the HLM 2019 planning and draft TWG 5 Progress Report (monitoring/implementing the TWG Policy Recommendations). <u>Plenary</u>: Q&A and discussion.
16.50-17.00	Closing of the meeting <i>Mr. Nguyễn Tuấn Anh / Mr. Jakob Stenby Lundsager</i>

ANNEX 2 - Participants

Co-Chairs

- **Mr. Nguyễn Tuấn Anh**, Director Planning Division, Electricity and Renewable Energy Authority (EREA/MOIT)
- **Mr. Jakob Stenby Lundsager**, Long Term Adviser, Danish Energy Partnership Programme, Denmark

Participants

- **Mr. Nguyễn Hoàng Linh**, MOIT
- **Mr. Trần Tuấn Minh**, MPI
- **Ms. Lương Thị Ngọc Huyền**, MOC
- **Mr. Antoine Vander Elst**, European Union Delegation
- **Ms. Trần Thùy Dương**, EUD
- **Ms. Trần Hồng Việt**, Denmark
- **Mr. Matti Tervo**, Finland
- **Mr. Lê Đại Nghĩa**, Finland
- **Ms. Luiza Girleanu**, Romania
- **Mr. Nguyễn Văn Hòa**, US Embassy
- **Mr. David R. Skorski**, US Embassy
- **Mr. Âu Minh Tuấn**, ADB
- **Mr. Phạm Đức Tùng**, AFD
- **Mr. Võ Thanh Tùng**, GIZ
- **Mr. Tô Đình Thái**, GIZ
- **Mr. Bùi Thành Trung**, JICA
- **Mr. Ananth Chikkatur**, USAID/ VLEEP
- **Mr. Hà Đăng Sơn**, USAID/ VLEEP
- **Mr. Phạm Thị Thái Hà**, National University of Civil Engineering
- **Ms. Lê Thị Hạnh**, General Statistics Office
- **Mr. Henri Wasnick**, Institute of Energy
- **Ms. Nguyễn Thị Thúy Anh**, Asia Cube Energy
- **Mr. Phạm Thành**, Wartsila
- **Mr. Simon James**, WWF

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	Summary
Opening remarks, overview of the agenda	<p><u>The Chair and Co-Chair</u> welcomed the participants and briefed the TWG on the topics and agenda of the meeting. The Chair and Co-Chair also highlighted the on-going process in the field of Energy Data and Statistics such as the implementation of the Viet Nam Energy Information System (VEIS) and the development of the Energy Balance Sheet which feed in support for the development of the PDP 8.</p> <p><u>The VEPG Secretariat</u> introduced the agenda of the meeting.</p>
VEIS implementation - Draft MOIT Circular and Implementation Plan	<p><u>EVEF/4E (GIZ)</u> presented its support activities to EREA in the development of the legal framework for the implementation of the VEIS (Annex 4.1). The presentation included the following topics:</p> <ul style="list-style-type: none"> - Development and overview of the draft circular on the establishment of the VEIS. - Pre-FS study for the VEIS Establishment in 2019 and FS study for project investment in 2021 - Additional needs for support in the pilot phase of the implementation of the VEIS <p>The Draft Circular passed the evaluation process with two rounds of discussion with relevant stakeholders and institutions including EVN, PVN, and DOITs. The public commenting period was closed in 19 November 2019. The Draft circular is finalized and submitted to the leaders of the MOIT for approval.</p> <p><u>The members of the TWG</u> discussed the draft circular on the establishment of the VEIS. Summarized here are the main comments of the TWG members on this topic:</p> <p><i>Data sharing mechanisms and legal requirements:</i></p> <ul style="list-style-type: none"> - After the PreFS and the FS report, EREA will assess the exchange of the information between EREA and other ministries and agencies. EREA will based on the PreFS and FS consider upgrading the legal framework (i.e: PM Decision) if necessary, to ensure data and information exchange. - The Draft Circular is based on the existing reporting mechanisms under which EVN, TKV, PVN and other agencies have to report to the MOIT. The MOIT will cooperate with other ministries and other agencies conduct survey to fill the data gap. - The Circular on the establishment of the VEIS will require agencies to share the data with the EREA for the VEIS, however, there is no legal implication if an agency failed to share the data. <p><i>Other DPs' support:</i></p> <ul style="list-style-type: none"> - Currently, EREA is cooperating with and supported by the EU (EVEF/4E project implemented by GIZ) in the development of the VEIS.

	<ul style="list-style-type: none"> - Further support from other development partners is needed in order to prepare the VEIS infrastructure as well as human resources for the VEIC through technical training activities. - Additional budgetary support is also crucial for the establishment of the VEIS.
Updates on Energy Data & Statistics	<p>Jakob Stenby Lundsager, DEPP presented the key results of the Energy Outlook Report 2019 (Annex 4.1).</p> <ul style="list-style-type: none"> - The full EOR 2019 and background documents can be found here: http://vepg.vn/custom_events/viet-nam-energy-outlook-2019/ <p><u>The members of the TWG discussed the key results of the Energy Outlook Report 2019. Summarized here are the main comments of the TWG members on this topic</u></p> <p><i>Technology Catalogue</i></p> <ul style="list-style-type: none"> - Representative from Wartsila Finland noted that the technology catalogue should also include the internal combustion generators such as using Diesel oil due to the low cost and the flexibility that it could provide for integration of the RE into the system. <p><i>EOR 2019 and PDP8</i></p> <ul style="list-style-type: none"> - Because the EOR 2019 laid out different scenarios for the development of the energy sector in Viet Nam and its impact, the report will serve as an input to prepare the PDP 8. - Capacity gained during the development of the EOR 2019 in modelling and methodology will support for the development of the PDP 8. The EREA and IoE also developed capacities in modeling and scenario building methodology that can be used for the development of the PDP 8. <p><i>Interconnection in EOR 2019</i></p> <ul style="list-style-type: none"> - EOR 2019 does not take into account the issue of interconnection. - DEPP is supporting EREA through IoE to investigate interconnection, regional trading and storage capacity. <p><u>The General Statistics Office (GSO) introduced the activities on the development of the Viet Nam Energy Balance Table 2017 (EBT) with the support from Italy (Annex 4.1):</u></p> <ul style="list-style-type: none"> - Concept of the EBT - Data sources for EBT - Major types of energy - Introduction of the EBT 2017 <p><u>The members of the TWG discussed the topic of the Energy Balance Table. Summarized here are the main comments of the TWG members on this topic:</u></p>

	<p>Publication of the EBT 2017:</p> <ul style="list-style-type: none"> - The energy balance is published on the Website of the MPI and GSO as well as in the Statistical Yearbook. <p>Methodology for calculation of household energy usage:</p> <ul style="list-style-type: none"> - The data was taken from 600,000 which account for 10% of total households in the country as the sample and was estimate through living standards. <p>Responsibilities of EBT development:</p> <ul style="list-style-type: none"> - Both the MOIT and GSO have responsibilities to develop the EBT under the Decision on the Establishment of the VEIS and the Statistics Law respectively. In the future, a mechanism for data sharing and cooperation with other Ministries and agencies including the GSO and IoE will be established for the development of future EBTs. <p>The EBT 2017 can be download here: http://vepg.vn/wp-content/uploads/2020/06/Bang-CB-2017-trinh-bay-Bo-CT.xlsx</p>
<p>PDP 8 – Current Development and Further Process</p>	<p><u>The Institute of Energy (IoE)</u> introduced the process of PDP 8 development and its supporting activities (Annex 4.1).</p> <p><i>Note: IoE have not been selected the official consultant for the PDP 8 by the date of the meeting, so all information is preliminary.</i></p> <p><u>The members of the TWG</u> reflected and discussed on the current development and further development process of the PDP8. Summarized here are the main comments of the TWG members on this topic</p> <p>PDP 8 and the Energy Development Strategy:</p> <ul style="list-style-type: none"> - Within the legal system in Viet Nam, the Party Resolution for Energy and Power Sector will be the guiding document which will influence the strategy formed by the government which is the Energy Sector Master Plan. The power development plan will be influenced by the Energy Sector Plan. - Both Energy Master Plan and the PDP 8 are being developed in parallel. The IoE is the consultant which has already collected data and information and will incorporate the new planning law in their work. <p>Timeline for the PDP 8:</p> <ul style="list-style-type: none"> - The time frame for the PDP 8 is quite short. - The mobilization to the support the PDP 8 development is critical due to this timeframe. There is a need for coordination of support in the coming time for the PDP 8. - The World Bank has a number of activities in support of the PDP 8 such as short-term report on Supply and Demand, training on HVDC as well as activities in support of the development of the Viet Nam Wholesale Electricity Market (VWEM). - The topic of PDP 8 is a cross-cutting between different TWGs of the VEPG. It is suggested that a coordination workshop on this topic

	<p>should be organized to leverage the full potential of the VEPG platform and its TWGs. TWG 5 will remain focal point for the PDP 8 topic.</p> <p><i>Planning timeframe:</i></p> <ul style="list-style-type: none"> - The energy sector in Viet Nam is very dynamic with changes in both supply and demand in a short period. It is suggested that the PDP should be revised every 3 years. <p><i>Alignment of capacity demand and grid capacity in PDP 8:</i></p> <ul style="list-style-type: none"> - In accordance to the new planning law, the PDP 8 will include a list of priority projects with locations, capacities, and ownerships. The new PDP will be more dynamic in dealing with demand and/or increase in renewable energies. The power plan will include a list of large-scale power plants. The smaller scale projects will be counted in the Provincial Power Plans for flexibility. <p><i>Projection of E-mobility in PDP 8.</i></p> <ul style="list-style-type: none"> - For the medium-term up to 2030, regression analysis related to power demand such as GDP, urbanizations are taken into account. However, regression analysis does not consider technological factor such as E-mobility. However, other models such as Times or LEAP which reflect technological factor(s) will be used in combination.
VEPG High-Level Meeting 2019 - TWG 5 Progress and Future Work	<p>The VEPG Secretariat presented the preparation and planning for the High-Level Meeting 2019 as well as the assessment of progress on the policy recommendations which will feed into the Progress Report of the VEPG (Annex 4.1). The sector planning topic will be a key topic for the HLM 2019.</p>
Closing of the meeting	<p><u>The Chair</u> thanked the members of the TWG 5 for the active participation in the discussion on topics of the meeting including the legal framework of the VEIS, energy data and activities from Denmark and the GSO, and the PDP 8 process. The Chair also highlighted the outlook for the TWG 5 in 2020 including the first output of the VEIS as well as further support for input for energy development policies in Viet Nam which include the PDP 8.</p> <p><u>The Co-Chair</u> thanked the members of the TWG and asked the members to utilize the VEPG and the TWG for coordination of the activities in Energy Data and Statistics as well as other activities in their sector.</p>

ANNEX 4.1 Presentations



Viet Nam Energy Partnership Group Technical Working Group 5 – Energy Data & Statistics

4th Meeting – 26 November 2019
MOIT, Ha Noi

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Key Objectives of the Meeting

- Presentation and discussion of **draft VEIS Circular** and implementation process
- Focus topics: **Energy Balance 2017** and **EOR 2019** as well as **PDP 8 development**
- Update on **High-Level Meeting 2019** and **VEPG Progress Report**

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Top 1: Opening and Introduction

TWG 5 Chair:

- *Mr. Nguyễn Tuấn Anh, Director of Planning Division, EREA/MOIT*

TWG 5 Co-Chair:

- *Mr. Jakob Stenby Lundsager, Long-term Advisor, Danish Energy Partnership Programme (DEPP)*

Agenda

Time	Subject
14.00-14.10	1. Opening remarks, overview of the agenda <ul style="list-style-type: none"> • Mr. Nguyễn Tuấn Anh / Mr. Jakob Stenby Lundsager • Brief Secretariat update on VEPG activities
14.10-14.50	2. VEIS implementation – Draft VEIS Circular and implementation plan <ul style="list-style-type: none"> • <u>EREA/MOIT Chair</u>: Presentation of draft MOIT Circular on the VEIS and the VEIS implementation plan • <u>Plenary</u>: Q&A and discussion with inputs to the VEIS draft Circular
14.50-15.50	3. Updates on Energy Data & Statistics <ul style="list-style-type: none"> • <u>Energy Outlook Report 2019</u> - Presentation of key results, Jakob Lundsager (Co-Chair) • <u>Energy Balance for Viet Nam 2017</u> - Update on the new Energy Balance, GSO Representative • Plenary: Q&A and discussion
15.50-16.00	Coffee/tea break
16.00-16.30	4. PDP 8 – Current development and further process <ul style="list-style-type: none"> • <u>Institute of Energy</u>: Input on ongoing research and work on PDP 8 • <u>Plenary</u>: Q&A and discussion
16.30-16.50	5. VEPG High-Level Meeting and Progress Report 2019 <ul style="list-style-type: none"> • Secretariat update

Follow up on 3rd TWG 5 meeting (April 2019)

Discussion of VEIS Action Plan (Dec. 4651/2018)

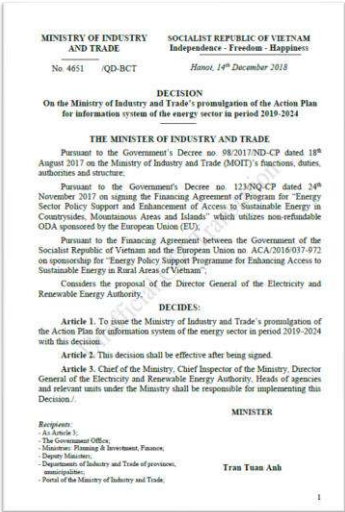
- Presentation of MOIT Decision on VEIS implementation and Action Plan with key activities for 2019

Discussion of Pre-Phase activities on PDP 8

- Input from USAID and WB PDP 8 support activities in the early preparation phase

GSO Activities in Energy Data & Statistics

- Cooperation project with Italy/Italian Statistics



Top 2: VEIS Draft Circular and Implementation

EVEF/GIZ:

- Presentation Mr. Võ Thanh Tùng, Project Officer EVEF/4E Project

EREA/MOIT:

- Mr. Nguyễn Hoàng Linh, Planning Division (for Q&A)

Top 3: Update on Energy Data & Statistics Energy Outlook Report 2019

Danish Energy Partnership Group (DEPP) / TWG 5 Co-Chair:

- *Mr. Jakob Stenby Lundsager, Long-term Advisor, DEPP*

Q&A and plenary discussion

- *TWG 5 members*

Top 3: Update on Energy Data & Statistics Energy Balance 2017

General Statistics Office (GSO):

- *Ms. Lê Thị Hạnh, Industrial Statistics Department*

Q&A and plenary discussion

- *TWG 5 members*

Tea Break

Top 4: PDP 8 Development - Update

Institute of Energy:

- *Mr. Nguyễn Ngọc Hùng*

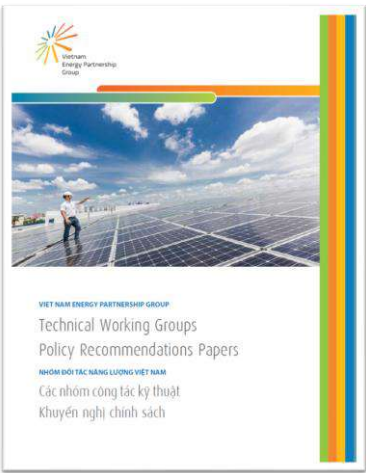
Top 5: Update on High-Level Meeting 2019 and VEPG Progress Report

VEPG Secretariat:

- *Mr. Rainer Brohm*

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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).

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TWGs Assess Progress on Policy Recommendations

TWG member feedback:

- TWGs discuss **progress** on Policy Recommendations, remaining **challenges** and **outlook** for 2020 in 4th meeting round (TWG 5 via online survey).
- Inputs are captured in monitoring matrix and **draft Progress Report**.
- Inputs from **TWG 5** were captured via an **online survey** in October 2019 and discussed among Chair and Co-Chair.



	Policy Recommendations TWG 5 Data & Statistics	Therapeutic	Indicators & Indicators	Status	Ongoing activity
Topic 1	→Establish the legal framework for Vietnam Energy Information System (VEIS) Establish a strong, coherent and clear legal framework for the collection, processing and dissemination of energy data and statistics in Viet Nam.				
	Issue a MOIT decision on the approval of the VEIS Roadmap and Action Plan.	Short-Term (end of 2019)	Issue MOIT decision on VEIS Roadmap and Action Plan approval	Completed	VEIS Action Plan (MOIT Decision 4651/2018) was issued on 14.12.2018.
	Develop and issue a legal decision on the implementation of the VEIS Roadmap and Action Plan.	Short-Term (end of 2019)	Issue MOIT Circular on VEIS implementation.	Ongoing	Development of MOIT Circular ongoing (drafts to be submitted to further government agencies for consultation in October 2019). Technical working Group for development of Circular was established early September 2019.
	Parallel preparatory work should be conducted on the terms of reference for the coordination platform, a multi-annual VEC work plan and the drafting of data sharing agreements.	Short-Term (end of 2019)	Develop further preparatory work (ToR for coordination platform, workshop etc.)	Ongoing	WPS has partially covered by the MOIT Circular (under development), other activities under this target will be started in 2020.

Progress on Policy Recommendations TWG 5 – Energy Data & Statistics



Progress:

- VEIS Action Plan approved and issued (MOIT Dec. 4651/2018)
- Draft MOIT Circular on VEIS implementation under consultation and Report on Investment Policy in development

Challenges:

- Finalization of VEIS legal framework and establishment of VEIS infrastructure
- Mobilization of further DP support (detailed task list developed in TWG) and coordination with other TWGs (e.g. TWG 2 on EE Database) and state agencies (e.g. GSO)
- Support of PDP 8 development in coordination with other TWGs (TWG 1, 2, 3)

Priority topics for 2020:

- Establishment of Viet Nam Energy Information System (VEIS)
- Support/coordination on PDP 8 development

High-Level Meeting 2019 – Planning



Proposed date: 10 December 2019

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, community level RE solutions)

High-Level Meeting 2019 – Planning

11:30-12:30 Interactive Session - What is the right energy mix for Viet Nam?

Keynote Speech "What is the right energy mix for Viet Nam?"

Prof. David Dapice
International Fellow, Vietnam Program at Harvard Kennedy School, Harvard University

Presentation of the Vietnam Energy Outlook Report 2019

Mr. Jakob Lundsager
Long-term Adviser, Danish Energy Partnership Programme in Viet Nam (DEPP)

Presentation of the PDP 8 development process

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Electricity and Renewable Energy Authority (EREA), MoIT

Panel Discussion - Energy Sector Development and Planning

Moderator: Dr. Lê Việt Phú
Senior Lecturer, Fulbright School of Public Policy and Management, Fulbright University VN

Panellists:

Prof. David Dapice
International Fellow, Vietnam Program at Harvard Kennedy School, Harvard University

Mr. Jakob Lundsager
Long-term Adviser, Danish Energy Partnership Programme in Viet Nam (DEPP)

Mr. John Rockhold
Chair Power and Energy Working Group, Vietnam Business Forum (VBF)

Dr. Nguyễn Trịnh Hoàng Anh
Senior Associate, Viet Nam Initiative for Energy Transition (VIET)

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Electricity and Renewable Energy Authority (EREA), MoIT

1st VEPG Stakeholder Forum:

Chair of Stakeholder Forum:

- **EREA/MOIT** (Mr. Kim, DG)


International key note on Global Trends:

- **Dr. Brian Motherway, IEA**

Focus Topic on Strategic Sector Planning

- Hosted and implemented by Fulbright University
- International key note: Prof. David Dapice (**Harvard Kennedy School**)
- Inputs on **EOR 2019** and **PDP 8**
- Discussion panel with further experts from **VIET** (Vietnam Initiative on Energy Transition) and **private sector** (Vietnam Business Forum)

VEPG Partner Support – DP Project Mapping



MAPPING OF CURRENT DONOR AND INTERNATIONAL EFFORT IN VIETNAM ENERGY SECTOR

Donor/Agency	Project name	Description/Description of interventions	Type of support	Start date	Implementing agency	RD	EE	ESR	SA	DSR
ADB	Power Transmission Investment Program- Tranche 1	Australia and the UK are providing funds to a World Bank led project, the Vietnam Climate Innovation Centre (VICIC). The project supports entrepreneurs (SMEs) in developing and commercializing innovative solutions in green economic sectors such as energy.	Loan (Investment)	2011-2017	National Power Transmission Corporation (NPTC)				5	
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 (Investment)	2012-2017					5	
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 350 kV-level and 220 kV-level transmission lines and improving the operational effectiveness and efficiency of the National Power Transmission Corporation.	Loan (Investment)	2015 - 2020					5	
ADB	Ha Noi and Ho Chi Minh City Power Transmission Development Sector project	The project includes inputs are: (i) strengthened institutional capacities of HAPC and HCMPC; and (ii) the development and rehabilitation of 220 kV and 110 kV transmission lines and substations of Ha Noi and Ho Chi Minh City. It is co-financed by ADB with Asian Infrastructure Fund (AIF) and USD 900 million from Japanese Government.	Loan (Investment)	2014 - 2019	Hanoi and HCMC Power Corporations				5	
ADB	Renewable Energy Development Network Expansion and Rehabilitation for Hanoi Communes Sector	The primary objective of the sector Project is to develop rural electrification and renewable energy in Viet Nam to benefit ethnic minority communities, including remote and poorer parts of the country. The Project consists of two investment components: (i) development of infrastructure plans of renewable resources, and (ii) network expansion and rehabilitation of distribution networks serving poor provinces. The Project will include an associated technical assistance (TA) grant for capacity building for renewable energy development.	Loan (Investment)	2008 - 2017	HPC, CPC, NPC				5	
ADB	Renewable Energy Development and Network Expansion and Rehabilitation for Hanoi Communes Sector		Grant	2008 - 2017		5				
ADB	Cable by Sustainable Renewable Energy Development		TA	2008 - 2017		5				
ADB	Establishing the Wholesale Electricity Market	The impact of the TA is that national electricity growth is more sustainable through diversification. The activities of the TA include (i) Basic and advanced training on general electricity market institutions; (ii) Recommendations on new functions and duties assignments of Power Corporation and NEDC (NEDC) for the VNEDC; (iii) Review the current ICT infrastructure of Power Corporation and NEDC (NEDC) and recommendations for upgrading ICT infrastructure for the VNEDC.	TA	2015 - 2016	EVN			5		
ADB	Rural Electrification	The project (providing technical assistance (PMTA)) will conduct a feasibility study for the Asian Development Bank (ADB)-supported Rural Electrification (RE) Project in Viet Nam, which should include: (i) technical verification of the rural electrification project; (ii) assessment of the project being prepared by the government; (iii) the feasibility study for the sub-project sites; and (iv) preparation of all project documents required by ADB for the investment of the project.	TA	2015 - 2016	MOET and EVN				5	

- Overview of VEPG partner projects in the energy sector (<http://vepg.vn/resources/vepg-documents/>)
- 60 ongoing partner projects with key information included (plus 40 concluded projects)
- New survey update finalized in October 2019

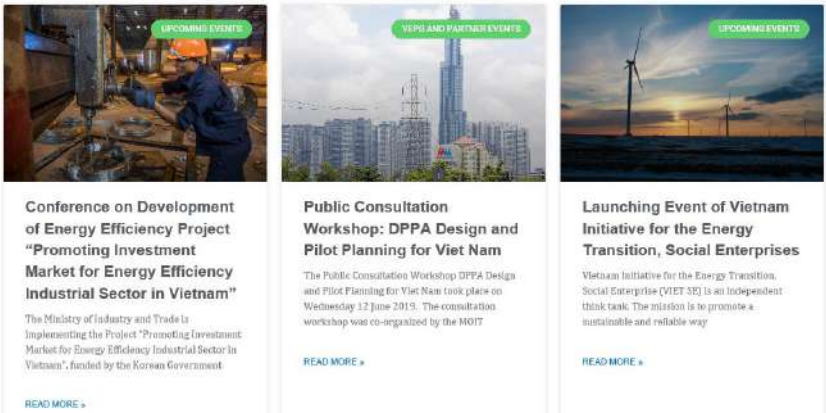
VEPG Sector Support – Legal Database

RECENT LEGAL DOCUMENTS

<p>PM Decision 1284/QĐ-TTg on the Approval of the Terms of Reference for the Development of the National Power Development Plan for 2021-2030 Period, Outlook to 2045</p> <p>- Effective date: 01/10/2019</p> <p>- Legislation type: Decision</p> <p>- Signer: Deputy Prime Minister Trịnh Đình Dũng</p> <p>DOWNLOAD FOR DETAILS ></p>	<p>MOIT Decision 2023/QĐ-BCT on the Approval of the Rooftop Solar PV Promotion Program</p> <p>- Effective date: 05/07/2019</p> <p>- Legislation type: Decision</p> <p>- Signer: MOIT Minister Trần Tuấn Anh</p> <p>DOWNLOAD FOR DETAILS ></p>	<p>EVN Guidance 3450/EVN-KD on Settlement of Outstanding Issues on Rooftop Solar Power</p> <p>- Effective date: 02/07/2019</p> <p>- Legislation type: Guidelines</p> <p>- Signer: Vice President of EVN Võ Quang Lâm</p> <p>DOWNLOAD FOR DETAILS ></p>
<p>MOIT Report 58/BC-CBT on the Implementation Progress of Power Projects in the Revised PDP7</p> <p>- Effective date: 04/06/2019</p> <p>- Legislation type: Report</p> <p>- Signer: MOIT Vice Minister Hoàng Quốc Vượng</p> <p>DOWNLOAD FOR DETAILS ></p>	<p>GoV Decree 37/2019/NĐ-CP Elaboration of the Planning Law</p> <p>- Effective date: 07/05/2019</p> <p>- Legislation type: Decree</p> <p>- Signer: Prime Minister Nguyễn Xuân Phúc</p> <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> <p>- Effective date: 25/04/2019</p> <p>- Legislation type: Circular</p> <p>- Signer: MOIT Minister Trần Tuấn Anh</p> <p>DOWNLOAD FOR DETAILS ></p>

- Legal Database online and constantly expanding
- +40 legal documents (VN and EN versions).
- PM Decisions, MOIT documents, Consultation Documents, EVN guidelines, etc.
- Increasing use:
 - 60% of all VEPG website visits are on legal database
 - > 2,500 downloads since June 2019

VEPG Partner Support – Information Sharing



- **VEPG Partner events** are featured on the website
- **+30 workshops and events** featured on website and information disseminated to members via TWG email groups.
- **Increasing outreach of VEPG website:**
 - > 4,000 unique visitors since June 2019
 - 50/50 Vietnamese and International users

Closure of the Meeting

Mr. Nguyễn Tuấn Anh, Director of Planning Division, EREA/MOIT
Mr. Jakob Stenby Lundsager, Long-term Advisor, Danish Energy Partnership Programme (DEPP)



Developing Legal Framework – Viet Nam Energy Information System (VEIS)

Hanoi, 26 November 2019

1

Developing legal framework and investment preparation for information infrastructure

1. Formulate and submit legislative documents on circular on establishment of a specialized information system for the energy sector (to be completed in 2019)
2. Develop, evaluate and submit to the relevant authority for approval of the Proposal on Investment Policy of the Energy Information System (to be completed in 2019)
3. Develop, evaluate and submit to the MOIT for the approval of the investment project for the Energy Information System (expected in 2022)
4. New legal documents (Government Decree or Prime Minister's Decisions) may be formulated and promulgated, or the above circular can be amended or supplemented to strengthen the energy information system (tentative for the period of 2022 - 2024)

2

Circular on the establishment of the Viet Nam Energy Information System (VEIS)

- Draft Circular passed the evaluation process:
 - with 02 rounds of discussion with related departments and related institutions to VEIS; comments from DOITs, EVN, PVN... have been considered and consolidated into the draft circular.
 - Closed the commenting process on 19/11 and finalized the draft circular
- has submitted to the leaders of the MOIT for approval; expected to be approved in December 2019.

3

Circular on the establishment of the Viet Nam Energy Information System (VEIS)

- Main content:
 - Focal point: Electricity and Renewable Energy Authority Agency (EREA) to carry out activities for the establishment and management of operation of the VEIS
 - Energy Information is to be published in 3rd quarter of every year
 - Overview and national energy trend
 - Balance sheet and energy balance sheet
 - Time series information on source capacity and power output
 - General indicators of energy statistics
 - Renewable energy indicators
 - Energy information is collected via:
 - Reports from reporting agencies (EVN, PVN, TKV,...)
 - Information sharing agreements with cooperating agencies (MARD, MOT, GSO, MOIT agencies...)
 - Survey and investigation
 - The circular is expected to be approved in 2019

4

Pre FE study for VEIS establishment

- Under process
- Will be submitted to MOIT Minister in December 2019
- Will be the foundation for the Feasibility Study calling for state investment into the VEIS which will be further developed in 2021.

5

VEIS implementation - additional needs

During the pilot phase of implementation, followings needs are foreseen:

- Additional trainings on various levels of data collection, process and analyzed
- Technical supports during implementation: via some concrete activities; hard ware and infrastructure
- Training to VEIS/ VEIC
- Others

6



EU – Viet Nam Energy Facility

Developing legal framework for Vietnam Energy Information System (VEIS) - TWG 5

Implemented by **giz** Technische Dienstleistung für internationale Entwicklungszusammenarbeit

1

Developing legal framework and investment preparation for information infrastructure

- Formulate and submit legislative documents on circular on establishment of a specialized information system for the energy sector (to be completed in 2019)
- Develop, evaluate and submit to the relevant authority for approval of the Proposal on Investment Policy of the Energy Information System (to be completed in 2019)
- Develop, evaluate and submit to the MOIT for the approval of the investment project for the Energy Information System (expected in 2021)
- New legal documents (Government Decree or Prime Minister's Decisions) may be formulated and promulgated, or the above circular can be amended or supplemented to strengthen the energy information system (tentative for the period of 2022 – 2024)



10/06/2020

The EU - Viet Nam Energy Facility

2

2

Circular on the establishment of VEIS

- Draft Circular passed the evaluation process:
 - with 02 rounds of discussion with related departments and related institutions to VEIS; comments from DOITs, EVN, PVN... have been considered and consolidated into the draft circular.
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10/06/2020

The EU - Viet Nam Energy Facility

3

3

Circular on the establishment of VEIS

- Focal point: Electricity and Renewable Energy Authority Agency (EREA) to carry out activities for the establishment and management of operation of the VEIS
- Energy Information is to be published in 3rd quarter of every year
 - ✓ Overview and national energy trend
 - ✓ Energy balance sheet
 - ✓ Time series information on power installed capacity and power output
 - ✓ General indicators of energy statistics
 - ✓ Renewable energy indicators
- Energy information is collected via:
 - ✓ Reports from reporting agencies (EVN, PVN, TKV,...)
 - ✓ Information sharing agreements with cooperating agencies (MARD, MOT, GSO, MOIT agencies...)
 - ✓ Designed Surveys organized by EREA
- Comprehensive data collection tools

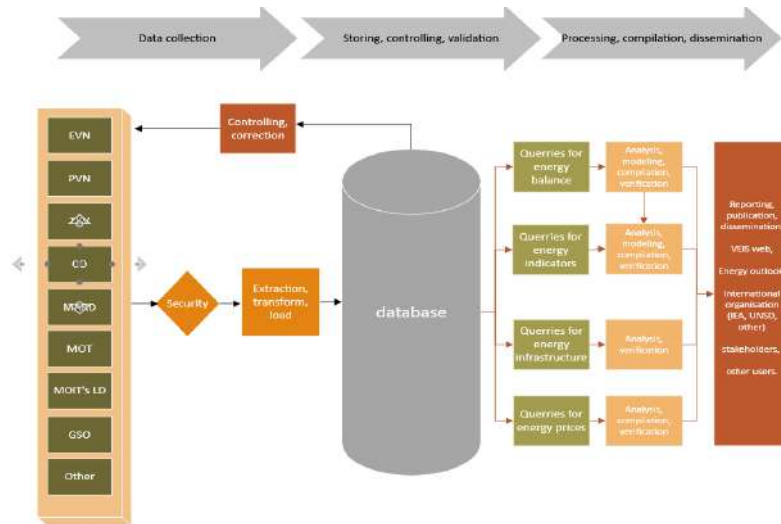
10/06/2020

The EU - Viet Nam Energy Facility

4

4

Circular on the establishment of VEIS



10/06/2020

The EU - Viet Nam Energy Facility

5

5

Pre FS study for VEIS establishment

- Under process
- Will be submitted to MOIT Minister in December 2019
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10/06/2020

The EU - Viet Nam Energy Facility

6

6

VEIS implementation – additional needs

During the pilot phase of implementation, followings needs are foreseen:

- Additional trainings on various levels of data collection, process and analyzed
- Technical supports during implementation: via some concrete activities; hard ware and infrastructure
- Training to VEIS/ VEIC
- Mechanism of energy information sharing should be established

Thank you for your attention

VIET NAM ENERGY BALANCE SHEET 2017

*Viet Nam Energy Balance Sheet in accordance to List of National Statistical Indicators
issued under the Statistical Law No. 89/2015/QH 13*

*Presenter: Lê Thị Hạnh
Agency: Industrial Statistics Department, GSO*



1

1	Concept of the Energy Balance Table
2	Data source for the Energy Balance Table
3	Major types of energy
4	Introduction of the Energy Balance Table 2017



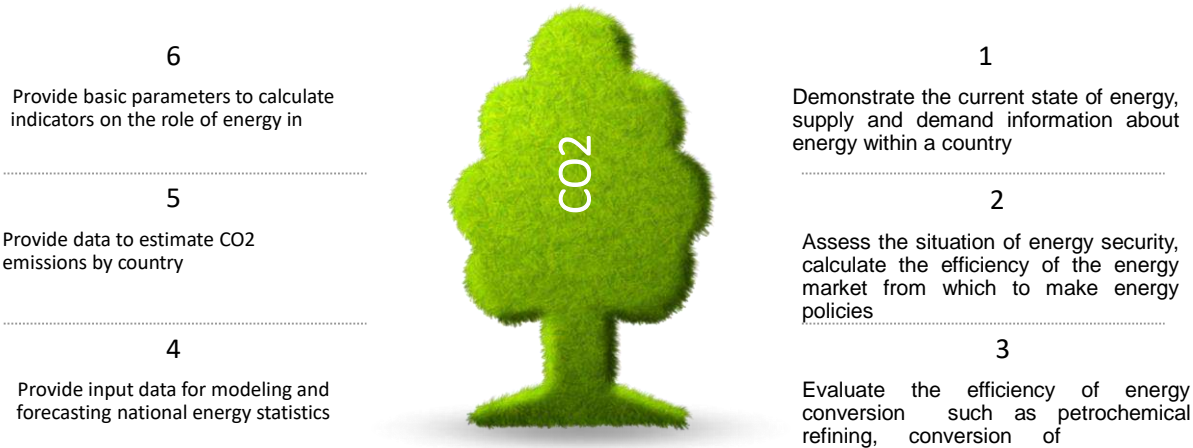
2

Concept of Energy Balance Table

Energy Balance Table is used to calculates the entire energy data involved in the process of energy production, conversion and consumption within a country in a period of time (yearly)

The Energy Balance Table follows the first rule of thermodynamics: energy is not naturally generated or lost, but change from one form to another

3



4

Data Source for Energy Balance Table



- ☒ TKV
- ☒ PVN
- ☒ EVN
- ☒ Custom Office
- ☒ Enterprises
- ☒ Individuals
- ☒ Living Standards
- ☒ Others

5

TKV

Account for more than 90% of coal mining output



OUTSIDE OF TKV (20 DND)

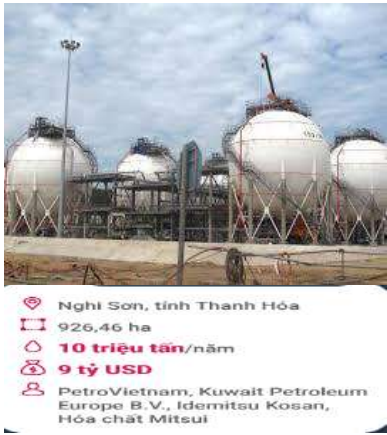
Account for more than 90% of coal mining output (mainly North East Coal Company)

Import

Export

6

NGHI SƠN REFINERY

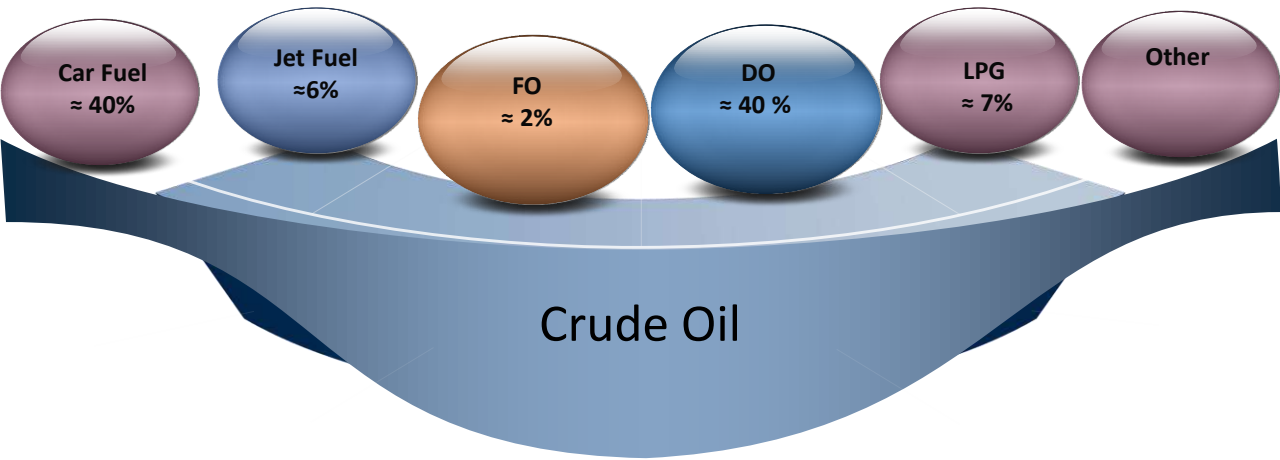


DUNG QUAT REFINERY



7

Product of petrochemical refining process in 2017



8



▪ $\approx 0,76\%$ for electricity generation

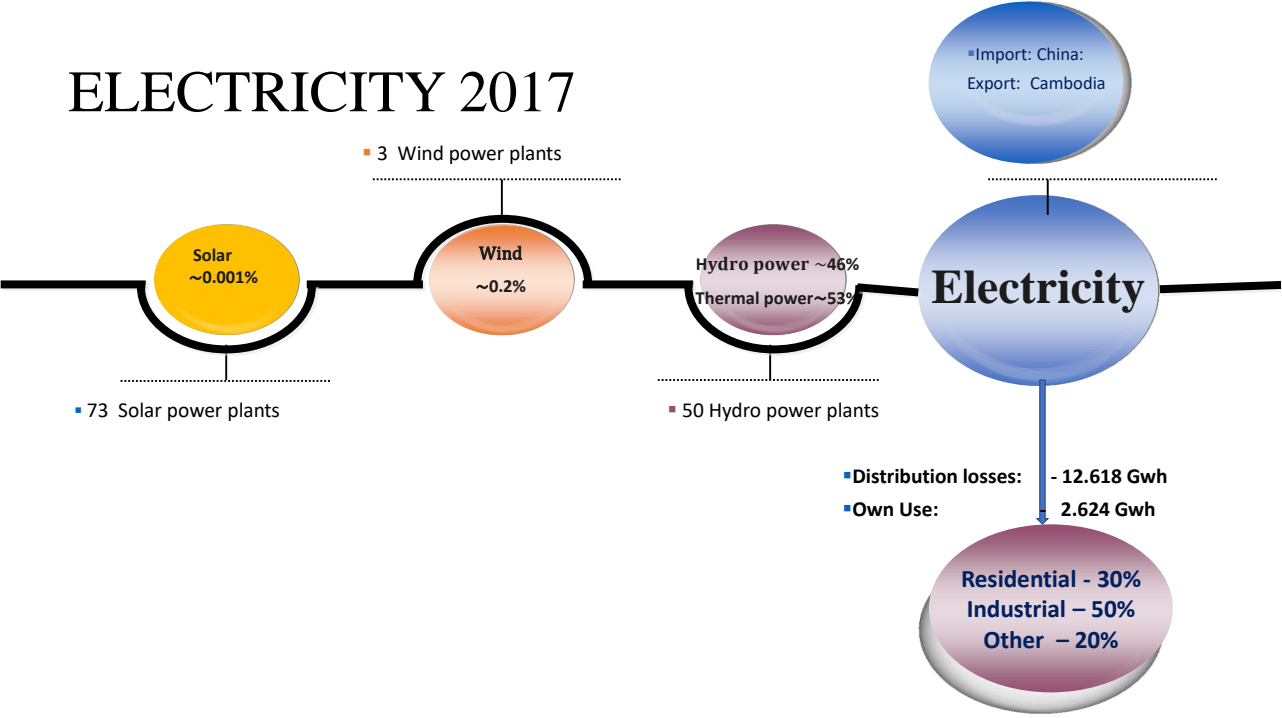


$\approx 12\%$ for gas processing plant



▪ $\approx 11.8\%$ for final consumption (fertilizer production)

9



10

Introduction of Energy Balance Table 2017



Thank you for your attention!



Institute of Energy

Power Development Plan 8

Progress and Supporting Studies

Hanoi, 26 Nov 2019

1

Contents

1. Progress
2. Supporting studies/projects

2

2

Progress

- ▶ Oct 2019: Government approved PDP8 proposal with time of completion by 3rd Quarter of 2020
- ▶ MOIT is preparing for:
 - ▶ Examination and approval of PDP8's bill of quantities
 - ▶ Contents of Strategic Environmental Assessment for PDP8
 - ▶ Direct contract with consultant

3

Progress

- ▶ Institute of Energy is preparing for:
 - ▶ Data collection from stakeholders and provinces
 - ▶ Power demand forecast with updated economic projections to 2050
 - ▶ Impacts of rooftop solar and decentralized generations
 - ▶ Impacts of possible demand respond activities
 - ▶ Primary energy supply capabilities in long-term
 - ▶ Off-shore wind
 - ▶ Overlapping between onshore wind and solar PV
 - ▶ New modelling framework for power system modeling (six-region, demand respond etc.)

4

Supporting studies/projects

- ▶ DEA-EREA Energy Outlook 2019
 - ▶ Technical report
 - ▶ Technology catalogue
 - ▶ Balmorel data report
 - ▶ TIMES data report
 - ▶ Fuel price projection
 - ▶ Electricity demand prognoses
- ▶ GIZ Mekong Delta transmission network
- ▶ USAID PLEXOS Integrated Energy Model transfer

5

Possible supports

- ▶ Development of HVDC lines
- ▶ Power interconnection with neighborhood countries
- ▶ Off-shore wind potential assessment
- ▶ Impacts of demand side activities on power demand
- ▶ Economic evaluations of PDP8
- ▶ Strategic Environmental Assessment (SEA)

6

The slide features abstract green geometric shapes. On the left is a tall, narrow green triangle pointing downwards. On the right is a larger, more complex shape composed of several overlapping green triangles and polygons in various shades of green. A thin white line extends from the bottom-left corner of this complex shape towards the center of the slide.

Thank you for your
attention!