

Viet Nam Energy Partnership Group

TECHNICAL WORKING GROUP 3: ENERGY SECTOR REFORM

REPORT OF THE 3ND MEETING

Date: 14 September 2018
Location: MoIT meeting room 101, 25 Ngo Quyen, Hanoi
Time: 8:30 – 11:45

Key agenda points:

- Presentation and discussion of new Viet Nam National Energy Efficiency Programme (VNEEP3) draft with the aim to identify potential DPs support to MoIT in future VNEEP implementation.
- Presentation and discussion of Energy Service Company (ESCO) development in Vietnam (presentation WB).
- Discussion and decision on TWG2 suggestions and policy recommendations to the High-Level-Meeting.

Chair and Co-Chair:

- **Mr. Trịnh Quốc Vũ**, Deputy Director General of Energy Efficiency and Sustainable Development Department, Ministry of Industry and Trade (MOIT)
- **Ms. Akiko Fujii**, Deputy Country Director - UNDP Viet Nam

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 Policy Recommendations

4.2 Presentations

AGREED CONCLUSIONS AND ACTIONS:

Conclusion / Decision	Action
<ul style="list-style-type: none"> The Chairs thanked all TWG 2 participants for joining and for the very active and constructive participation and the inputs and comments to the draft policy paper in particular. The Chairs and the Secretariat will consider all inputs and suggestions for the revision and finalization of the Policy Paper and make sure that all relevant thoughts and inputs from the group will be considered properly. The final paper will be sent to members for their information (no further round of agreement) and subsequently be submitted to the Steering Committee for consideration and further preparation for the HLM. <i>Note from the Secretariat: Please find the final paper approved by the TWG chairs and the VEPG Steering Committee in Annex 4.1.</i> 	Chairs, Secretariat
<ul style="list-style-type: none"> MoIT appreciated all comments from TWG2 members and the other ministries on the VNEEP 3 presentation and will consider them for the further development of the VNEEP3 draft. MoIT will share the draft VNEEP3 documents with TWG2 members as soon as they are finalized via the Secretariat. <i>Note from the Secretariat: the draft documents have been shared already after the meeting, an additional EN translation of the decision submitted to the Prime Minister will be shared together with the Report of the Meeting.</i> MoIT will also share a list of tasks for which further Development Partner support could be needed. 	MoIT, Secretariat
<ul style="list-style-type: none"> TWG 2 members discussed and reflected on the World Bank presentation on ESCO development. The Chairs and the Secretariat agreed on following up with this important topic in future meetings of TWG 2 and further inform TWG members on new developments. 	Chairs, Secretariat
<ul style="list-style-type: none"> The Chairs and the secretariat will consider the date for the next meeting and inform the members as soon as possible. Options would be end of November/early December (to reflect on the HLM outcomes and have a special member input or field trip) or next year (potentially after TET holidays end of Feb/early Mar). 	Chairs, Secretariat

ANNEX 1 - AGENDA

8:00-8:30	Registration
8:30-8:40	Opening Remarks <ul style="list-style-type: none"> • Mr. Trịnh Quốc Vũ • Ms. Akiko Fujii
8:40-8:45	Introduction of the new secretariat <ul style="list-style-type: none"> • Secretariat: Brief introduction and report
8:45-9:15	Update of TWG2's new initiatives/ongoing projects <ul style="list-style-type: none"> • Participants: Brief update on new initiatives/projects after 1st meeting
9:15-10:15	The new VNEEP draft <ul style="list-style-type: none"> • MOIT: Presentation • Q&A, plenary discussion and feedback from TWG members
10:15-10:45	Challenges and Policy Recommendations for ESCO Development <ul style="list-style-type: none"> • World Bank: Presentation • Q&A; discussion
10:45-11:00	Coffee break
11:00-11:40	Discussion of TWG2 Policy Recommendations to the HLM <ul style="list-style-type: none"> • Co-Chairs: presentation of draft Policy Recommendations • Q&A; discussion and decision on key recommendations
11:40-11:45	Conclusions, agreements, closing remarks <ul style="list-style-type: none"> • Mr Trịnh Quốc Vũ • Ms Akiko Fujii

ANNEX 2 - Participants

Co-chairs

- **Mr. Trịnh Quốc Vũ**, Deputy Director General of Energy Efficiency and Sustainable Development Department (DEESD), Ministry of Industry and Trade (MOIT)
- **Ms. Akiko Fujii**, Deputy Country Director - UNDP Viet Nam

Participants

- **Mr. Tran Hong Viet**, Embassy of Denmark
- **Ms. Carloh Deliz**, Embassy of Italy/ Italian Agency for Development Cooperation (AICS)
- **Mr. Antoine Vander Elst**, EU Delegation
- **Ms. Nina Seahra**, Embassy of Canada
- **Ms. Nguyễn Thanh Hà**, USAID Vietnam Low Emission Energy Program (V-LEEP)
- **Mr. Đào Xuân Lai**, United Nations Development Programme (UNDP)
- **Mr. Jay Malette**, United Nations Development Programme (UNDP)
- **Ms. Vu Thi Thu Hang**, United Nations Development Programme (UNDP)
- **Ms. Pham Thi Nga**, United Nation Industrial Development Organization (UNIDO)
- **Ms. Nguyet Pham**, Global Green Growth Institute (GGGI)
- **Ms. Nguyen Thi Thanh An**, French Development (AFD)
- **Mr. Vu Quang Dang**, Asian Development Bank (ADB)
- **Mr. Chu Ba Thi**, World Bank
- **Mr. Franz Gerner**, World Bank
- **Mr. Tran Hai Anh**, Embassy of Norway
- **Mr. Ingmar Stelter**, GIZ
- **Mr. Le Chi Hieu**, GIZ
- **Ms. Nguyen Van**, GIZ
- **Mr. Hoàng Văn Tâm**, DEESD, MOIT
- **Mr. Dinh Van Chau**, DEESD, MOIT
- **Mr. Đặng Hải Dũng**, MOIT
- **Mr. Đinh Chính Lợi**, Ministry of Construction
- **Mr. Nguyen Huu Tien**, Department of Environment, MOT,
- **Mr. Nguyen Ngoc Kien**, Department of Science, Technology and technical economics, Ministry of Science and Technology
- **Mr. Nguyen Kien Cuong**, VAST, Centre for High Technology Development,
- **Ms. Pham Thi Phuong**, VAST, Centre for High Technology Development,
- **Mr. Nguyễn Văn Bình**, Business Department, MOIT
- **Ms. Nguyễn Quỳnh Anh**, Business Department, MOIT
- **Mr. Nguyen Tran Viet**, Business Department, MOIT
- **Dr. Nguyen Trinh Hoang Anh**, CleanED & Vietnam Sustainable Energy Alliance
- **Mr. LE Tuan Phong**, Korean International Cooperation Agency (KOICA)
- **Ms. Hang Le**, Korean International Cooperation Agency (KOICA)
- **Mr. KWON Taekyong**, Korean International Cooperation Agency (KOICA)
- **Ms. Nguyen Thi Thu Ha**, Korean International Cooperation Agency (KOICA)
- **Mr. KIM Hyeunjae**, Korean International Cooperation Agency (KOICA)

VEPG Secretariat

- **Mr. Rainer Brohm**, VEPG Secretariat
- **Ms. Nguyen Phuong Thao**, VEPG Secretariat
- **Ms. Ngo To Nhien**, EU TAF for SE4All Project
- **Ms. Vu Minh Hien**, VEPG Secretariat
- **Ms. Dang Thi Huong Lan**, VEPG Secretariat

ANNEX 3 - SUMMARY MINUTES

Agenda item	Summary
Opening remarks	The <u>Chair and Co-Chair</u> welcomed participants and encouraged everyone to actively join the discussion on the policy recommendations of TWG 2.
Introduction of new VEPG Secretariat	<p>The <u>new Secretariat team</u> introduced themselves and outlined the following:</p> <ul style="list-style-type: none"> • Rainer Brohm, the new International Coordinator, started in August and is currently taking over the activities of the former secretariat team. • Ms. Nguyen Phuong Thao has joined the team beginning of September as a Senior Project Officer. Another Junior Project Officer will join beginning of October (Mr. Do Quang Nhat). (<i>See PPT presentation in Annex 4.2</i>) • Within October the TWG members will be informed about the new VEPG website and contact email address of the secretariat. Until then TWG members can reach the secretariat under the existing email address (vepg.group@gmail.com). • The Secretariat further outlined that the new VEPG website will feature VEPG partner projects in a news section. Thus, all VEPG partners and TWG members are encouraged to inform the Secretariat about new projects or milestones in ongoing projects so they can be featured on the VEPG website in the future. <p>The <u>Secretariat</u> presented the tentative workplan and timeline for the TWGs, Steering Committee and High-Level-Meeting:</p> <ul style="list-style-type: none"> • The Steering Committee (SC) is tentatively scheduled for the first week of October (3.-5. Oct). The High-Level Meeting (HLM) is tentatively scheduled for beginning of November (6.-8. Nov.). • Following this, all TWGs have been asked to hold their second meetings until mid-September. Policy recommendations should be developed by TWGs and submitted to the SC by end of September latest.
Brief introduction round of participants	<p><u>TWG participants</u> briefly introduced themselves:</p> <ul style="list-style-type: none"> • Apart from many development partners, private sector representatives, experts from research institutes and CSO's as well as EVN, the Chairs also welcomed representatives from various other ministries (among them MoC, MoT, MoST)
Discussion of the new VNEEP3 draft	<p><u>MoIT/DEESD</u> presented the status of the VNEEP3 draft in a PPT presentation. [<i>PPT presentation of Mr. Chau was provided in a separate email sending on Sep19 to all TWG2 members, see also Annex 4.2</i>]:</p> <ul style="list-style-type: none"> • Mr. Chau (MoIT/DEESSD) outlined the key objectives, measures and implementation timeline for the new VNEEP 3 in his presentation. • He further highlighted that various projects in the EE sector are currently ongoing with support from different development partners and across different line ministries. This is a challenge for coordination and oversight.

- [The Secretariat informs that it had updated the DP project survey in the EE sector prior to the meeting. TWG2 members find an overview of all projects in the PPT presentation sent to members on Sep 19, see also Annex 4.2]

Summarized are here the main comments and reflections of TWG Members regarding the draft VNEEP3 presentation:

- The issue was raised that the general targets in VNEEP3 should be linked/broken down to more specific targets for certain ministries, provinces and stakeholder groups. In that regard, the funding needs of provinces to meet these targets should be taken into consideration more specifically.
- Furthermore, and regarding the roles and responsibilities for energy efficiency targets, the private sector should be in focus (specifically, the support of ESCOs and the related legal framework for ESCO models needs to be included more to VNEEP3).
- In addition to that, the recommendation was made to directly link targets with certain activities and use a project frame format to present this.
- Targets should be carefully considered regarding their feasibility and priority.
- Regarding the further process within the government there is need for good and effective inter-agency coordination.
- Regarding private sector investments to energy efficiency it was reflected on the problem that many enterprises lack the resources to invest in such measures even if they see the general benefit. Solutions need to be found on how to cover these financing gaps (such as fiscal measures).
- Furthermore, a stronger focus on key (high intensity) energy users was considered to concentrate on those energy users with high energy efficiency potential and higher resources to invest.
- The high importance of data and data collection from enterprises/energy users was highlighted.
- Energy Efficiency could be part of the curricula of training programmes under MoET and MoLISA.
- If there is a list of tasks that MoIT needs further support from development partners, it would be good if MoIT could share it so DPs could consider further support measures.

MoIT/DEESD further clarified regarding the discussed issues:

- MoIT reflected on the existing legal framework and involved targets for different sectors and sub-sectors (e.g. sugar sector).
- MoIT will act as the leading agency to allocate targets also to provinces but this process will also take some time.
- State funds and ODA financial support will help to mobilize private sector investments specifically via ESCOs and PPPs.
- Data and data collection is an important part of VNEEP3 and one of 9 tasks.

	<ul style="list-style-type: none"> • MoIT will further coordinate with the other relevant ministries before submitting the draft to the Prime Minister. • MoIT can provide a list with tasks that need further DP support. <p><u>The Chairs</u> concluded this agenda top:</p> <ul style="list-style-type: none"> • MoIT appreciates all comments from TWG2 members and the other ministries and will consider all for the further development of the VNEEP3 draft. • MoIT will share the draft VNEEP3 documents with TWG2 members as soon as they are finalized via the Secretariat. • MoIT can also share a list of tasks where further DP support could be needed.
<p>Presentation on ESCO development by World Bank</p>	<p><u>Mr. Chu, World Bank</u> presented on “Challenges and Policy Recommendations for ESCO development” (<i>see PPT in Annex 4.2</i>):</p> <ul style="list-style-type: none"> • Mr. Gerner (Energy Lead, World Bank Vietnam and Co-Chair of TWG 3 on Energy Sector Reform) introduced the World Bank activities on Energy Efficiency in general and mentioned that WB is also working together with MoIT on translating the national targets into provincial targets under a EE mandatory regime. • Mr. Chu presented on challenges and recommendations for ESCO development based on their ongoing ESCO project (results from a workshop in June 2018). • <u>TWG members</u> reflected on the presentation in a brief Q&A session. Among that, EVN gave a feedback on specific challenges to ESCO model implementation, including fiscal challenges.
<p>Discussion of draft TWG2 Policy Recommendations</p>	<p><u>The Secretariat</u> presented the draft issue paper on “Key Policy Recommendations for TWG 2” that was developed between Chair, Co-Chair and the Secretariat and that was sent out to TWG members prior to the meeting:</p> <p><u>Summarized are here the main comments of TWG Members on the draft:</u></p> <ul style="list-style-type: none"> • The soonest approval of the VNEEP3 programme should have highest priority. • The institutionalization of VNEEP3 should be considered, as well as the identification of priorities and coordination of DP support for the next 12 months and for the following period. • More concreted targets should be defined with clear time frames. • It should be considered how energy efficiency emission reductions could be included in the NDC and PDP VIII process (e.g. a baseline and a energy efficiency scenario). • Also, longer-term incentives would be useful to trigger energy efficiency development in certain industries. • The proposed Energy Efficiency Fund needs to be clarified regarding proposed funding instruments and key objectives of that fund. • It could be considered to include financing instruments into the programme (such as carbon tax).

	<p><u>MoIT/DEESD clarified regarding some of the discussed issues:</u></p> <ul style="list-style-type: none"> • There is consensus that the VNEEP3 should be approved and implemented as soon as possible. • Regarding further coordination and prioritization of tasks and activities, the VNEEP3 will have a stronger steering mechanism since other ministries are involved in the implementation. Furthermore, the short-term priority lies on the finalization of the legal documents with guidelines and implementing regulation for the law on energy efficiency. • A further focus will be on awareness raising, education, capacity building and the implementation of pilot projects. • Regarding financing instruments (taxes etc.) there can be a reference in the programme but not in a way that further delays the implementation process. <p><u>The Chairs concluded this agenda top:</u></p> <ul style="list-style-type: none"> • The Secretariat will revise the draft policy recommendations paper according the above discussed valuable inputs from TWG members and make it more concise. • Further comments can be send to the Secretariat in written form until end of next week (Friday, September 21). • The Chairs will then discuss and adopt the revised paper to make sure that all relevant thoughts and inputs from the group have been considered properly. • The final paper will be sent to members for their information (no further round of agreement) and subsequently be submitted it to the Steering Committee for consideration and further preparation for the HLM (<i><u>note from the Secretariat: Please find the final paper approved by the TWG chairs and the VEPG Steering Committee in Annex 4.1</u></i>).
<p>Conclusions, agreements, closing remarks</p>	<p><u>The Chairs</u> concluded the meeting with the following remarks:</p> <ul style="list-style-type: none"> • The Chairs thanked everybody for joining and for the very active and constructive participation. • The Chairs and the Secretariat will consider all inputs and suggestions when revising and finalizing the Policy Paper but also for the future development of the work agenda of TWG 2. • The Chairs and the secretariat will consider the date for the next meeting and inform the members as soon as possible. Options would be end of November/early December (to reflect on the HLM outcomes and have a special member input or field trip) or next year (potentially after TET holidays end of Feb/early Mar).

ANNEX 4.1 – ISSUE PAPER ON POLICY RECOMMENDATIONS

(Note from the Secretariat: This is the final version of the issue paper as approved by the Co-chairs of the TWG and the VEPG Steering Committee at its 3rd meeting on 05/10/2018)

VEPG - Technical Working Group No. 2 – Energy Efficiency

Issue Paper on Policy Recommendations

1 Objective of this paper

In the Steering Committee Meeting on 11.07.2018, the Chair Vice Minister Vuong, and the Co-Chair Ambassador Angelet asked the TWG Chairs and Co-Chairs to agree on specific policy recommendations in time for the next scheduled Steering Committee Meeting in early October 2018. Recommendations would then be endorsed by the Steering Committee and presented at the High-Level Meeting tentatively scheduled in early November 2018.

In its first meeting, TWG 2 agreed on the following priority topics for 2018/2019 including:

- National Program on Energy Efficiency in the period of 2019-2030
- Promotion of ESCO services and private sector engagement

This paper presents challenges and policy recommendations for the promotion of energy efficiency in Viet Nam.

2 Background

Viet Nam has experienced economic growth over the past 25 years with a GDP per capita increase by 20 times to USD 2,109 (in 2015) from USD 114 (in 1990). Energy demand for economic development has been accordingly increasing. Energy intensity is comparatively high at about 289,6 – 270,0 kg OE/USD during 2010 – 2015, which is 2 times higher than the global average energy intensity and among the highest energy intensive countries and East Asia.

Viet Nam has committed to a climate change agenda (GHG emission targets of 8% by 2030 in NDC) and sustainable development (SDG7.3: “Double the global rate of improvement in energy

efficiency”). Viet Nam also committed to reduce energy intensity by reducing its energy consumption per unit GDP by 1 – 1.5% (as per the Resolution at the Congress of the XII National Communist Party). Energy Efficiency is one of the key measures to reduce Viet Nam’s greenhouse gas emissions and improve its energy security. It also contributes to social, environmental and economic benefits including stable energy supply, job creation, improved well-being, mitigated environmental pollution and reduced production cost towards sustainable and low-carbon development.

Over the past 10 years, Viet Nam has achieved an Energy Efficiency rate of 3.4% during 2006-2010 and 5.65% equivalent to 11,261 million TOE during 2011- 2015. Based on the draft National Energy Efficiency Programme (VNEEP III), Viet Nam sets the efficiency rate of 8 - 10% of total national commercial energy consumption for 2019 – 2030 in the BAU scenario.

3 Challenges to Energy Efficiency improvements

Policy framework for Energy Efficiency: :

- There is **no national Energy Efficiency programme** in place since 2016.
- There is a **lack of mechanisms, tools and policies to enforce compliance** to the legal requirements on Energy Efficiency as well as to encourage investments in Energy Efficiency technology and innovation.
- The **market for Energy Service Companies (ESCO)** is **not yet in full place** to facilitate the development of ESCOs due to lack of a comprehensive regulations and tools that govern ESCOs’ activities and limitations of the ESCO models being promoted.

Institutional framework for Energy Efficiency implementation and enforcement:

- The **monitoring and inspection** of Energy Efficiency compliance **lacks coordination** among governmental agencies and local departments.

Financing Energy Efficiency:

- Low energy prices do not provide incentives to households and business to invest in replacing outdated and inefficient technologies with high-efficient and energy-saving technologies. **Financial access for ESCO:** enterprises including ESCOs face challenges in getting **access to concessional loans** for energy saving projects. Funds from the private sector as well the availability of preferential credit programs for EE investments in general and Energy Performance Contract (EPC) projects in particular are scarce. For large industries, investment in replacing equipment/technology is often considered as part of their core business but not as an EE investment. Financial institutions and banks are not motivated and interested in financing EE so they are not familiar with EE investment package and put high interest on EE investment loan request. Access to finance by SMEs is more challenging because they do not have collateral as compared to

large industries. ESCOs face similar challenges in attracting finance since they often have limited collateral, thus increasing risk levels and resulting in higher financing costs.

Technical capacity and awareness:

- The **technical capacities** of receiving and **applying EE technology and solutions** are still limited. Project designers, engineers and architects generally fail to take into account energy efficiency concerns and opportunities for optimizing processes and facilities to consume less energy.
- Limited capacity of ESCOs and service providers in gaining trust in the market.
- There is limited **awareness and knowledge of EE benefits** among communities and enterprises, as well as public sector leading to low demand on EE. End users are still unsure about the benefits of energy- and cost-saving generated by EE projects.

4. Recommendations for further improvement of Energy Efficiency

Policy framework for Energy Efficiency:

- The **policy framework** for energy efficiency should be further strengthened through review of sub-law documents and decrees to enhance the practicability of such legal documents and define and strengthen accountabilities and roles of central and local agencies. Policies and instruments including incentive and sanctioning mechanisms should be customized toward the target groups in order to influence decision-making process on energy efficiency investment as well as EE implementation in all sectors including households, public and municipal facilities, residential and commercial buildings, SMEs, large industries, agriculture and the transport sector.
- Energy efficiency and conservation needs to be **promoted in all aspects of social activities and sectors** including efficiency in households, public and municipal facilities, residential and commercial buildings, SMEs, industry, agriculture and the transport sectors.
- **Specific targets/benchmarks** and strategies for energy consumption should be developed, implemented and monitored **for key energy using sectors**. Such sectors include large industries, construction of commercial and public buildings and transport sector. **Gradually**, energy saving with **specific targets** and requirements **should be mandatory** for key energy users. This includes requirements for appliances, generators and air-conditioning units, housing operation, and construction standards for housing, office, and factory.
- In the long-term, energy efficiency **targets** should be **divided and owned** by concerned **ministries, sectors, cities, and provinces** to ensure actions will be taken to meet the targets.

Institutional framework for Energy Efficiency implementation and enforcement:

- A **new VNEEP** with a **robust monitoring and reporting system** with greater **transparency** will help to track the progress, facilitate prioritization, and provide incentives for taking action by concerned stakeholders.
- It is essential to **enhance accountability** and **monitoring** and **evaluation mechanisms** among ministries. Furthermore, there is a need for a **high-level coordination** among government agencies and line ministries. One important measure could be the establishment of a **Steering Board for Energy Efficiency and Conservation** chaired by the Deputy Prime Minister and consisting of leading representatives of all relevant ministries and agencies. Apart from regularly evaluating the progress in implementation for the Law on Energy Efficiency and Conservation and the national EE programme, such Steering Board could strengthen responsibilities among the ministries and facilitate effective coordination of EE across sectors in EE implementation, enforcement and monitoring and oversight by competent authorities.

Financing Energy Efficiency:

- **Innovative and inclusive financing mechanisms including a dedicated Energy Efficiency Fund** should be established to mobilize all resources from national and international institutions and public and private sectors for EE implementation and ensure long-term and stable funding support to EE. Such mechanism could be used to generate greater EE investment and to facilitate better access to financial resources for EE.
- **Private sector** financing and technology transfer for EE are important. There is a need for **creating an investment environment** that can attract and leverage private and public-sector resources for Energy Efficiency measures. Public funding to pilot initiatives and new efficiency technologies could help to de-risk and trigger private investment in up-scaling. Stronger partnership with international and national financial institutions and the private sector, and the implementation of designed financing mechanisms are necessary to encourage more energy-efficient investments.

Technical capacity and awareness raising:

- Continuous effort in **awareness raising** and **technical capacity building** for target groups including energy managers, private sector and ESCOs is important in increasing demand for EE activities and solutions. Apart from knowledge sharing and guidance, updates of EE best practices and gains and advanced EE technologies with justified cost savings and other co-benefits should be adopted and shared among those groups. For ESCOs, EPCs models and capacity in dealing EPCs for both ESCO and end-users should be built.
- A **public education campaign** should be developed and implemented to raise awareness and improve ability of individuals in reducing energy waste and creating a clean environment.



ANNEX 4.2 – PRESENTATIONS

- VEPG Secretariat presentation
- MoIT/DEESD presentation on VNEEP 3 (EN and VN version)
- World Bank presentation on ESCO Development



Viet Nam Energy Partnership Group

Technical Working Group 2 – Energy Efficiency

2nd Meeting - 14. September 2018
MoIT, Hanoi

Trinh Quoc Vu,
Director Energy Efficiency and Sustainable
Development Division, EREA/MoIT
Chair of Technical Working Group 2

Akiko Fujii,
Deputy Country Director
UNDP Vietnam
Co-Chair of Technical Working Group 2

Agenda

VEPG TWG 2
Energy Efficiency

Time	Subject
8.30-8.40	1. Opening remarks, overview of the agenda ▪ Mr. Trinh Quoc Vu / Ms. Akiko Fujii
8.40-8.45	2. Introduction of the new VEPG secretariat ▪ Secretariat: Brief introduction and report of secretariat
8.45-9.15	3. Update of TWG2's new initiatives/ongoing activities • Participants: Brief update on new initiatives/projects after 1 st meeting
9.15-10.15	4. The new VNEEP draft ▪ MoIT: Presentation ▪ Q&A, plenary discussion and feedback from TWG members
10.15-10.45	5. Challenges and Policy Recommendations for ESCO Development ▪ World Bank: Presentation ▪ Q&A and plenary discussion
10.45-11.00	Coffee break
11.00-11.40	6. Discussion of TWG2 Policy Recommendations to the HLM ▪ Chairs: Presentation of draft Policy Recommendations ▪ Q&A, discussion and decision on key recommendations
15.45-16.00	7. Conclusions, agreements, outlook on next meeting, closing remarks ▪ Mr. Trinh Quoc Vu / Ms. Akiko Fujii

1. Opening Remarks

VEPG TWG 2
Energy Efficiency

Key objectives of the meeting:

- Update regarding current activities of VEPG partners and TWG members (focus themes)
- Focus topic: ESCO
- Update on new VNEEP draft and process
- Discussion and decision on TWG 2 Policy Recommendations to the HLM
- Agreement on further work process and meeting schedule

2. Introduction Secretariat

VEPG TWG 2
Energy Efficiency

New secretariat (GIZ team)

- **Rainer Brohm**, International Coordinator
- **Ms Ngyuen Phuong Thao**, Project Officer
- **Ms Do Quang Nhat**, Junior Project Officer (start 1.10.)



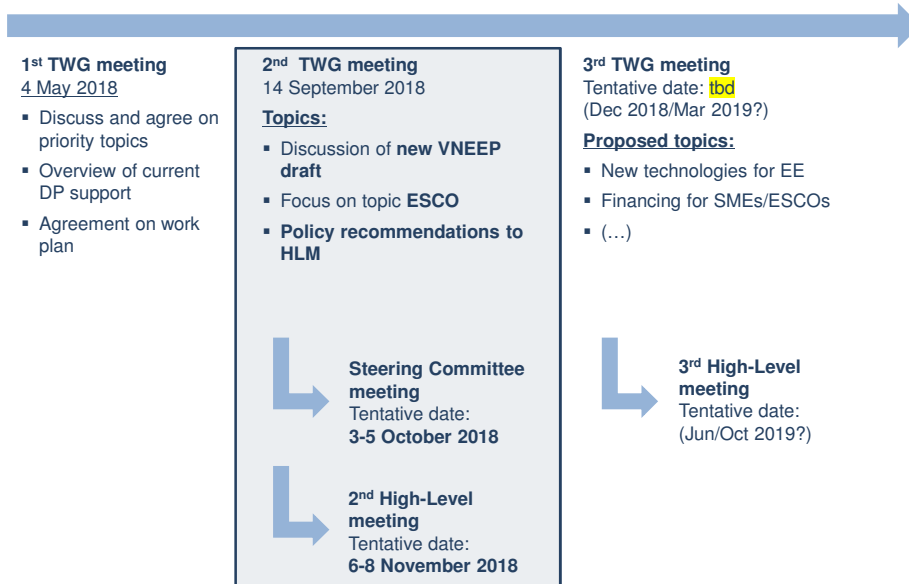
Contact:

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23 Ngo Quyen

Email: vepg.group@gmail.com (soon to be changed – secretariat@vepg.vn)
Website: coming soon...

2. Introduction Secretariat – Update on Timeline

VEPG TWG 2
Energy Efficiency



3. Update on Member Activities

VEPG TWG 2
Energy Efficiency

Participants: Brief update on new (!) activities:

- Current activities by members with respect to focus topics of TWG

3. Update on Member Activities

VEPG TWG 2
Energy Efficiency

Partner	Project/Activity
ADB	<ul style="list-style-type: none"> ▪ Enhancing readiness for solar power deployment in Vietnam (2017-2018) <ul style="list-style-type: none"> ○ Including support measures for Energy Efficiency ▪ Integrated Resource Planning with Strategic Environmental Assessment for Sustainable Power Sector Development in the Greater Mekong (2017-2019) <ul style="list-style-type: none"> ○ Specifically targeting Vietnam and EE policies, regulations and programs ▪ Southeast Asia Energy Sector Development, Investment Planning and Capacity Building Facility (2018-2021) <ul style="list-style-type: none"> ○ The TA Facility will among others focus on ESCO development and LED street lighting
AUS	<ul style="list-style-type: none"> ▪ Vietnam Climate Innovation Center (2015-2020, MoST, NATEC) <ul style="list-style-type: none"> ○ Funds for a WB led project: support for entrepreneurs and SMEs in EE sector (among others)
EU	<ul style="list-style-type: none"> ▪ Energy Sector Policy Support Programme to enhance Access to Sustainable Energy in Rural Areas of Vietnam (2017-2021, EREA/GIZ) <ul style="list-style-type: none"> ○ Support of VN government in targeted programme on electricity supply to rural, mountainous and island areas to alleviate poverty. Also focussing on Energy Efficiency. ▪ EU Vietnam Energy Facility (2018-2021, MoIT/GIZ) <ul style="list-style-type: none"> ○ Complementary support to above budget support programme. Among others: TA facility (demand-driven) also focussing on Energy Efficiency

3. Update on Member Activities

VEPG TWG 2
Energy Efficiency

Partner	Project/Activity
EU	<ul style="list-style-type: none"> ▪ Danang Solar Energy Development (2017-2020, DECC) <ul style="list-style-type: none"> ○ Support project implemented by Danang Energy Efficiency Center (DEEC). Improving regulatory environment and facilitating pilote projects, also including Energy Efficiency. ▪ Civil society meets RE&EE - trainings, seminars and communication skills to boost RE&EE as a key tool for sustainable development and green growth strategy in Vietnam (E-Enhance) (2017-2021, GreenID) <ul style="list-style-type: none"> ○ Fostering RE&EE development in Vietnam through building civil society and local champions for improving energy access and living conditions of Vietnamese citizens. ▪ VEPG Secretariat (2016-2018, concluded, MoIT) <ul style="list-style-type: none"> ○ Support the establishment and start-up of the Viet Nam Energy Partnership Group (VEPG) between Development Partners and MOIT.
GIZ	<ul style="list-style-type: none"> ▪ Smart Grids for Renewable Energy and Energy Efficiency (2017-2021, ERAV) <ul style="list-style-type: none"> ○ Support for VN power sector in developing a smart power supply system, including focus on Energy Efficiency (regulatory framework, human capacity development, technology cooperation) ▪ Renewable energy and energy efficiency (4E), Phase II (2017-2021, MoIT) <ul style="list-style-type: none"> ○ Supporting the necessary legal and regulatory framework for large-scale solar energy and Energy Efficiency development (among that: Energy Efficiency promotion through systematic stock-taking, data analysis and macro-economic cost-benefit analysis).

3. Update on Member Activities

VEPG TWG 2
Energy Efficiency

Partner	Project/Activity
KfW	<ul style="list-style-type: none"> ▪ Energy Efficiency in Urban Areas (2014-2019, EVN) <ul style="list-style-type: none"> ○ Rehabilitation and modernization of power grid in urban areas in Hanoi and HCMC in order to reduce losses and avoid CO2 emissions and to ensure a reliable and cost-effective power supply (installation of new meters, rehabilitation and upgrade of substations and MV & LV lines in urban grid).
UK	<ul style="list-style-type: none"> ▪ South East Asia Low Carbon Energy Programme (not yet been launched, 2018-2022, TBD) <ul style="list-style-type: none"> ○ Strengthen policy and regulatory frameworks for green finance and energy efficiency; Facilitate greater investment in low carbon technologies, including improved green finance flows; Improve the ease of doing business for low carbon projects, energy efficient products and EE products and services; Increase innovation and knowledge transfer on energy efficiency and low carbon technologies; ...
UNDP	<ul style="list-style-type: none"> ▪ Promotion of Non-fired brick production and utilization in Viet Nam (NFB) (2016-2020, MoC) <ul style="list-style-type: none"> ○ Reducing the annual growth rate of GHG emissions by displacing the use of fossil fuels and the usage of good quality soil for brick making through the increased production, sale and utilization of non-fired bricks (NFBs) in Viet Nam (policy advise, capacity building, improving access to financing, TA/demonstration projects).

3. Update on Member Activities

VEPG TWG 2
Energy Efficiency

Partner	Project/Activity
UNDP	<ul style="list-style-type: none"> ▪ Local Development and Promotion of LED Technologies for Advanced General Lighting (2015-2019, VAST) <ul style="list-style-type: none"> ○ Mitigating GHG emissions through transformation of the lighting market towards greater usage of locally produced LED lighting products in Viet Nam (knowledge and technology transfer, demonstration of cost-effective local production). ▪ Strengthening Capacity and Institutional Reform for Green Growth and Sustainable Development in Vietnam (CIGG) (2015-2018, MPI) <ul style="list-style-type: none"> ○ Building capacity to advance green growth by strengthening policies, regulations and technical guidance for the implementation of the Viet Nam Green Growth Strategy and Action Plan (capacities of MPI, MOF, MOT and provinces for effective implementation and monitoring, policy framework, access to green growth financing and pilot projects).
UNIDO	<ul style="list-style-type: none"> ▪ Promotion of Energy Efficiency Industrial Boiler adoption and operating practices in Vietnam (2015-2019, MoIT) <ul style="list-style-type: none"> ○ Reduce energy consumption and reduce greenhouse gas emissions through promoting the widespread adoption of energy efficiency boilers and best operation practices in industry. ▪ Implementation of Eco-industrial Park Initiative for Sustainable Industrial Zones in Viet Nam (2014-2018, MPI) <ul style="list-style-type: none"> ○ Increased transfer, deployment and diffusion of clean and low-carbon technologies and practices for the minimization of GHG emissions, POPs releases and water pollutants as well as improved water efficiency and the sound management of chemicals in industrial zones (IZ) of Vietnam.

3. Update on Member Activities

VEPG TWG 2
Energy Efficiency

Partner	Project/Activity
UNIDO	<ul style="list-style-type: none"> ▪ Strengthen the supply capacity of the fruits and vegetable sector by applying proper technologies along the value chain (UNIDO component under UN JP to support NTP on New Rural Development) (2012-2018, MARD) <ul style="list-style-type: none"> ○ Improved skills and knowledge for enterprises, collectors, and smallholders on good vegetables & fruits (mango) management practice under VietGAP standard, Post-harvest technology, management of vegetable production chain. ▪ UNIDO-UNEP Global Program on Resource Efficiency and Cleaner Production (RECP) in developing and transition countries (Vietnam component) (2013-2018, Vietnam Cleaner Production Center) <ul style="list-style-type: none"> ○ Identifying and filling gaps for the ratification of the Kigali Amendment to the Montreal Protocol and ensure the early compliance of the country vis a vis the new obligations. ▪ Regional Project: Demonstration of BAT and BEP in open burning sector in response to the Stockholm Convention on POPs (Viet Nam component) (2015-2020, MoNRE) <ul style="list-style-type: none"> ○ To achieve meaningful and sustainable release reduction of UP-POPs in the open burning sector, through a) partnering in investments for BAT/BEP implementation at selected demonstration sites, b) regulatory and institutional strengthening measures and c) through a regional cooperation and information sharing platform ▪ Enabling activities for HFC phase-down in Viet Nam (2017-2019, MoNRE) <ul style="list-style-type: none"> ○ Reducing greenhouse gas emissions by creating an enabling environment for the use of hydrocarbon refrigerants (with a very low GWP) in cold storage facilities in Viet Nam

3. Update on Member Activities

VEPG TWG 2
Energy Efficiency

Partner	Project/Activity
USAID	<ul style="list-style-type: none"> ▪ Vietnam Low Emission Energy Program (V-LEEP) (2015-2020, Deloitte) <ul style="list-style-type: none"> ○ Building effective policies, regulations, and mechanisms to promote low emission development in energy sector; as well as to attract public-private investment in renewable energy development and energy efficiency.
World Bank	<ul style="list-style-type: none"> ▪ Distribution Efficiency Project (-2020, EVN, PCs) <ul style="list-style-type: none"> ○ Upgrading and Expansion of Distribution-Network ▪ Transmission Efficiency Project (-2020, EVN/NPT) <ul style="list-style-type: none"> ○ Upgrading and expansion of T-network ▪ EE for Industrial Energy Project (-2023, MoIT/Banks) <ul style="list-style-type: none"> ○ Promote EE in industry ▪ GCF EE for Industry Risk Sharing Facility (-2024, MoIT) <ul style="list-style-type: none"> ○ Risk Sharing Facility to promote EE in industry ▪ Scaling up ESCOs (-2018, MoIT) <ul style="list-style-type: none"> ○ Defining strategy for VN to develop ESCOs ▪ Develop EE Targets and Mandatory EE Regime for VN (-2019, MoIT) <ul style="list-style-type: none"> ○ Develop efficient EE framework

4. The New VNEEP Draft

VEPG TWG 2
Energy Efficiency

MoIT/DEESD: Presentation of new VNEEP draft

- Presentation, Q&A, discussion

5. ESCO: Challenges and Policy Recommendations

VEPG TWG 2
Energy Efficiency

World Bank: Presentation

- Presentation, Q&A, discussion

Coffee/tea break

4. Discussion of TWG 2 Policy Recommendations

Paper content / key recommendations (overview)

1. Background

2. National Programme on Energy Efficiency (VNEEP)

- Key Challenges
- Recommendations

3. Promotion of Energy Service Company (ESCO) services

- Key Challenges
- Recommendations

4. Discussion of TWG 2 Policy Recommendations

VEPG TWG 2
Energy Efficiency

2. National Programme on Energy Efficiency (VNEEP) – Key Challenges

Page 2

First of all, the **policy framework for Energy Efficiency** is in place but enforcement is still challenging due to following main reasons:

- There is a **lack of mechanisms and policies to enforce compliance** to the legal requirements on Energy Efficiency as well as to encourage investments in Energy Efficiency technology and innovation;
- The current **incentive mechanism** to support enterprises to invest in replacing outdated and inefficient technologies with high efficiency and energy-saving technologies **is not attractive** regarding the high investment cost involved.
- Enterprises face challenges in getting **access to concessional loans** for energy saving projects due to complicated procedures, the inability to develop bankable and feasible EE projects, tight loans conditions, unattractive debt rates and limited availability of concessional loans.
- The **monitoring and inspection** of Energy Efficiency compliance **lacks coordination** among governmental agencies and local departments.
- There is limited **awareness of Energy Efficiency among communities and enterprises** and knowledge regarding the needs for Energy Efficiency as well as the ability to access information on technology and solutions for energy saving;

4. Discussion of TWG 2 Policy Recommendations

VEPG TWG 2
Energy Efficiency

2. National Programme on Energy Efficiency (VNEEP) – Key Challenges

Page 3

Secondly, the **technical capacities** of receiving and **applying technology**, techniques of energy efficiency and savings are still limited.

Thirdly, the **market for Energy Service Companies (ESCO)** is **not yet in full place** to allow and facilitate the operation of ESCOs. The capacities of ESCOs is also limited to gain trust in the market (see also section 4).

4. Discussion of TWG 2 Policy Recommendations

VEPG TWG 2
Energy Efficiency

2. National Programme on Energy Efficiency (VNEEP) – Recommendations

Page 3

- **Energy efficiency** should be a **critical element of the overall clean energy strategy** as well as a long-term vision of low carbon and sustainable development. The **policy framework** for energy efficiency should be further strengthened with review of the Law on Energy Efficiency and Conservation and sub-law documents, decrees to enhance the practicability of the legal document and define and strengthen accountabilities and roles of central and local agencies.
- Energy efficiency and conservation needs to be **promoted in all aspects of social activities and sectors** including efficiency in households, public and municipal facilities, residential and commercial buildings, SMEs, industry, agriculture and the transport sector.
- One important measure in strengthening the institutional framework and the implementation and enforcement of Energy Efficiency strategies and measures could be the installation of a **Steering Board for Energy Efficiency and Conservation** supervised by the Vice Prime Minister and consisting of representatives of all relevant ministries and agencies.
- Further schemes and instruments should be designed and adopted to enforce and promote Energy Efficiency and to incentivize energy efficiency solutions. Such could be **Energy Efficiency codes and standards, administrative and financial mechanisms**; energy rating systems, and energy management information system, etc.

4. Discussion of TWG 2 Policy Recommendations

VEPG TWG 2
Energy Efficiency

2. National Programme on Energy Efficiency (VNEEP) – Recommendations

Page 3

- **Specific targets and benchmark** for energy consumption should be defined and implemented for **key energy using sectors** (industry, construction and transportation) towards greenhouse gas emission reduction and reducing energy intensity.
- The national programme on Energy Efficiency should be approved to **mobilize and ensure coherent efforts and resources** among all sectors in promoting energy efficiency. State budget as the main source of funding should be supported by Development Partners initiatives and support measures.
- **Private sector** financing and technology transfer and innovation for Energy Efficiency are important. There is a need for **creating an investment environment** that can attract and leverage private and public-sector resources for Energy Efficiency measures. Public funding to pilot innovative initiatives and new technologies could help to de-risk and trigger private investment for scaling up.
- Stronger **partnership with international and national financial institutions and the private sector**, and the implementation of business models and financing mechanisms are needed to encourage more energy-efficient investment.

4. Discussion of TWG 2 Policy Recommendations

VEPG TWG 2
Energy Efficiency

2. Promotion of ESCO services – Key Challenges

Page 4

The legal framework so far does not provide comprehensive regulations that could govern ESCOs' activities.

- E.g. there are no guidelines on how to use ESCO services, no regulation on intermediary organizations (third parties) to solve the problems arising between ESCOs and enterprises, nor are there regulations for state-owned enterprises to actively and fully participate in the ESCO market.

The market environment shows several shortcomings that hinder ESCO development:

- There is lack of capacity among existing companies to operate as real ESCOs due to the lack of Energy Efficiency project implementation demand;
- The absence of an ESCO certification process is leading to confusion in the market;
- There is no adapted financing mechanism that prevents ESCOs from offering the needed services expected by the market on a wide scale.
- There is no EPC-enabling legal framework to support EPC adoption;
- Credibility is low due to the absence of demonstration projects;
- There are few opportunities to work on public facilities.

4. Discussion of TWG 2 Policy Recommendations

VEPG TWG 2
Energy Efficiency

2. Promotion of ESCO services – Key Challenges

Page 4

Financial barriers exist that prevent ESCO market development:

- In general, funding for ESCO companies and models is scarce. This applies to funds from the private sector as well the availability of preferential credit programs for EE investments in general and EPC projects in particular.
- As a result, small local potential ESCOs do not have sufficient balance sheets to take on the debt under a shared-savings model and they lack the necessary demonstrated track record as well as the financial means to offer a credible performance guarantee under the guaranteed-savings model.

4. Discussion of TWG 2 Policy Recommendations

VEPG TWG 2
Energy Efficiency

2. Promotion of ESCO services – Key Challenges

Page 4

Awareness and trust in ESCO models is low and a barrier for successful project implementation:

- **End users are still unsure about the benefits** of energy and cost savings generated by EE projects. **ESCO concepts** are often **perceived as complex** which leads to refusals from potential clients who have never heard of the concept.
- ESCOs **risk being seen as biased** when presenting the concept and opportunities, especially since not many case studies of projects implemented in the country or client references are available to demonstrate viability.
- On the other side, ESCOs often do not **trust that potential clients will pay** them for the delivered services, let alone for generated savings

4. Discussion of TWG 2 Policy Recommendations

VEPG TWG 2
Energy Efficiency

2. Promotion of ESCO services – Recommendations

Page 5

- **The public sector and the policy framework needs to be further developed:** this includes the legal framework for ESCO implementation as well as funding and financing instruments for the public sector. A comprehensive, potentially country-wide technical support for EPC project preparation could be helpful as well.
- **The private sector needs to be further developed and supported in its capacity development:** this includes the development of ESCO's technical capacities as well as the improvement of end-user awareness and capacities in dealing with ESCO and EPC models. This would increase market credibility and improve relationships between ESCO and clients/end-users.
- **The support of demonstration/best practice projects would improve market development:** the support of the development phase of projects (e.g. through grants or financing guarantees) could facilitate market development and project implementation. Such support could also offset parts of the project costs, e.g. those used for independent parties in charge of Measuring & Verification of savings.
- **The installation and support of facilitators could enhance market development:** Independent facilitators could consult clients/end-users and serve as an intermediary between them and ESCOs. Facilitators could foster healthy competition between ESCO financiers by ensuring that projects bring the best added value to beneficiaries.

4. Discussion of TWG 1 Policy Recommendations

VEPG TWG 2
Energy Efficiency

Conclusions

- **Decision on paper and adoption for submission to SC/HLM**
- (In case of suggested amendments, the secretariat will include these to the paper and consolidate it).

2. Introduction Secretariat – Update on Timeline

VEPG TWG 2
Energy Efficiency





*Thank you for your attention
and participation!*



MINISTRY OF INDUSTRY AND TRADE

VIETNAM - NATIONAL ENERGY EFFICIENCY PROGRAMME

PERIOD 2019-2030







Hanoi – 14/9/2018



MINISTRY OF INDUSTRY AND TRADE



Contents

-  Significance of the Programme
-  VNEEP 3 Draft Programme
-  Evaluation of the Programme's effectiveness
-  Implementing Entities



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I. Significance of the Programme



- On average, GDP increased by 7,26%/year during 2001-2010, dropped down to 5.91% in 2011-2015 and has recovered to 6.8% since 2016.
- Energy demand increased by 10% during 2001-2010, electricity demand increased by 13%/year during 2001-2010 and approximately 11% during 2011-2015.
- According to PDP VII, Vietnam's total power demand will averagely increase by 8.7% during 2016-2030. Until 2030, electricity demand will increase by 1.5 times every five year.
- Domestic power supply capacity would increase from 38,358 MW in 2015 to 60,000 MW in 2020 and 129,500 MW in 2030.

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I. Significance of the Programme



Political foundation

- Resolution No. 18-NQ/TW dated 25 October 2007 issued by the 10th Politburo providing guidance for Vietnam's national energy development strategy by 2020, with vision to 2050.
- Resolution of the 12th National Congress of the Communist Party of Vietnam: **energy consumption per GDP shall decrease by around 1 - 1.5%/year on average.**
- Resolution No. 23-NQ/TW, dated 22 March 2018 issued by the 12th Politburo providing Guidance to formulate national industrial development policy by 2030, with a vision to 2045.

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I. Significance of the Programme



Legislation Foundation

- Law on Energy Efficiency and Conservation 2010.
- Decree No. 21/2011/ND-CP dated 29 March 2011 issued by the Government detailing the Energy Efficiency and Conservation Law and its implementation measures.
- Decree No. 134/2013/ND-CP dated 17 October 2013 issued by the Government setting forth administrative fine in electricity, hydroelectric dam safety, and energy efficiency and conservation.
- According to NDC report, Vietnam commits to reducing 8% greenhouse gas emission during 2021-2030 against typical development scenario and may further reduce up to 25% with effective international support.
- Decision No. 04/2017/QĐ-TTg dated 09 March 2017 issued by the Prime Minister setting forth the List of equipment and appliances to which mandatory energy labeling and minimum energy efficiency standards are applied, and the roadmap to their implementation

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I. Significance of the Programme



Legislation Foundation

- Decision No. 403/QĐ-TTg dated 20 March 2014 issued by the Prime Minister approving the National Action Plan on Green Growth for 2014-2020.
- Decision No. 24/2018/QĐ-TTg dated 18 May 2018 by the Prime Minister issuing List and roadmap disposable energy-consuming equipment and appliances and low-efficiency power generator units.
- Decision No. 1393/QĐ-CP dated 25 September 2012 issued by the Prime Minister approving the National Strategy on Green Growth which specifies the indicators for reducing greenhouse gas emission intensity and promoting clean energy and renewable energy use as follows:
 - + 2011 – 2020 period: Reduce greenhouse gas emission intensity by 8 - 10% against 2010 index, reduce energy consumption per GDP by 1 - 1,5%/year.
 - + Guidance for up to 2030: Reduce annual greenhouse gas emission by at least 1.5 - 2%.

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I. Significance of the Programme



Practical Foundation: Improve national competitiveness

Development of primary energy supply during 2000-2015 (MTOE)

PE	2000	2005	2010	2011	2012	2013	2014	2015
Coal	4.372	8.376	14.730	15.605	15.617	17.239	19.957	24.608
Oil	7.917	12.270	17.321	16.052	15.202	14.698	17.700	19.540
Gas	1.441	4.908	8.316	7.560	8.253	8.522	9.124	9.551
Hydropower	1.250	1.413	2.369	3.519	4.540	4.468	5.146	4.827
Non-commercial Energy	14.191	14.794	13.890	14.005	14.121	13.673	12.745	11.925
Imported Electricity		33.	399	333	125	200	124	136
Total	29.171	41.794	57.025	57.075	57.857	58.801	64.797	70.588

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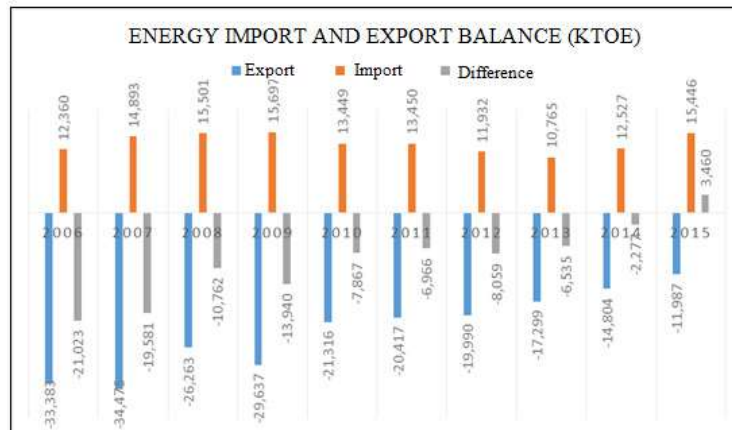


I. Significance of the Programme



Practical Foundation: enhance national competitiveness

Development of energy import and export during 2006 - 2015 (KTOE)



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I. Significance of the Programme



Practical Foundation: enhance national competitiveness

Some Energy - Economic indicators in Vietnam, 2011-2015

Content	Unit	2011	2012	2013	2014	2015
Total primary energy supply	KTOE	57.073	57.855	59.203	64.797	70.588
Total Final Energy Consumption	KTOE	48.485	49.134	50.606	52.248	54.080
Total Final Energy Consumption per Capita	kgOE/capita	551.8	553.2	563.8	575.9	589.7
Energy Intensity	kgOE/USD \$1,000	423.6	406.2	411.1	423.6	410.8
Energy Consumption per Capita	kWh/capita	1.077	1.187	1.294	1.416	1.564

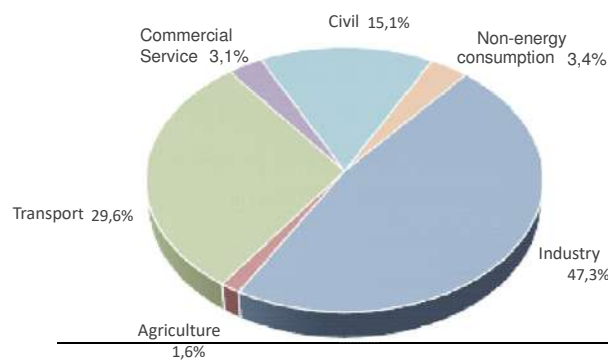
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I. Significance of the Programme



Practical Foundation: enhance national competitiveness



Energy Consumption Structure by Economic Sector, 2015

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I. Significance of the Programme



Practical Foundation: Demand for Sustainable Development and Green Growth Greenhouse Gas Inventory Report throughout the years (million tonnes)

Sector	1994	2000	2010	2020 (forecast)	2030 (forecast)
Energy	25,637.09	52,773.46	141,170.79	381.1	648.5
Industrial Processes	3,807.19	10,005.72	21,172.01	-	-
Agriculture	52,450.00	65,090.65	88,354.77	100.8	109.3
LULUCF	19,380.00	15,104.72	-19,218.59	-42.5	-45.3
Waste	2,565.02	7,925.18	15,351.67	26.6	48.0
Total	103,839.30	150,899.73	246,830.65	466.0	760.5

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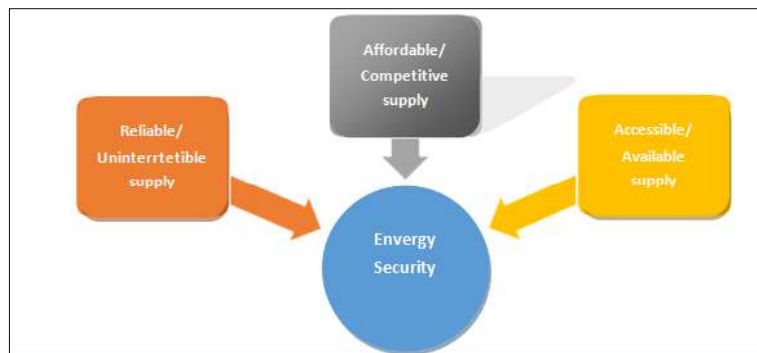


I. Significance of the Programme



Practical Foundation: Protect national energy security

IEA Model of Energy Security



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I. Significance of the Programme



Practical Foundation: Ensure national energy security

Changes in Energy Security Indicators' during 2010-2015

Indicator	2010 value	2015 value	Comment/Annotation
Reserves-to-Production (R/P) Ratio of Coal, Oil and Natural Gas	Coal: ~70 years Natural Gas: ~40 years; Raw Oil: ~ 20 years.		Coal mining capacity: 50 million tonnes/year; Gas harvesting capacity: 15 billion m3/year; Raw Oil drilling capacity: 15 million tonnes/year;
Reliance on coal, oil and natural gas import (% net import)	-14%	5.00%	Increasing reliance on imported fuel.
Coal/oil/gas import expenditure/total import expenditure (%).		4.90%	
Coal/oil/gas import expenditure/total export revenue (%).		4.78%	The current ratio is not high, however, future upward trend of imported fuel reliance ratio should be noted.
Coal/oil/gas import expenditure/total gross domestic product (%).		4.16%	

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I. Significance of the Programme



Practical Foundation: Ensure national energy security

Changes in Energy Security Indicators' during 2010-2015

Indicator	2010 value	2015 value	Comment/Annotation
Diversification of oil import product (HHI index).	1,879	2,122	Relatively diverse, however, concentration trends are on the rise.
Diversification of fuel structure for power generation (HHI index).	3,107	3,209	Relatively diverse, however, concentration trends are on the rise.
Commercial Energy Intensity	0.37	0.38	There is a slight increase due to economy structure changes

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I. Significance of the Programme



Practical Foundation: Ensure national energy security

The solution set of energy efficiency and conservation enforcement is considered as one of the key items in Vietnam's national energy security because it leads to:

- Significantly higher economic, environmental and social effectiveness comparing to exploitation of traditional energy sources;
- Reducing imbalance in energy supply and demand;
- Securing long-term stability for national energy resources;

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II. VNEEP 3 Draft Programme



Advantages: Outcomes from VNEEP I and II

	VNEEP I	VNEEP II
Period	2006-2010	2011-2015
EE target (%)	3-5	5-8
Actual EE rate (%)	3.4	5.65
Total Energy Savings (Million TOE)	4.5	11.261

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II. VNEEP 3 Draft Programme



International donors

- WB, ADB, UNIDO, GEF, UNDP, SIDA, JICA, DANIDA.
- Funded projects always included financial assistance (ODA and soft loans) and expert experience transfer on the basis of framework activities proposed by the Government of Vietnam.
- There were overlaps in support (one project received multiple supports form different institutions) in international funding projects.



There is a need of a national monitoring program for energy efficiency and conservation activities on the basis of establishing a hierarchy of tasks for each participating entities: the State's governance authorities, businesses, the public and international organization's support.

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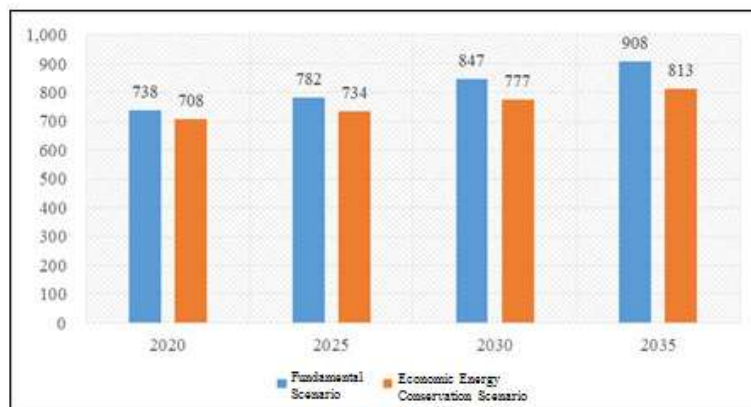


II. VNEEP 3 Draft Programme



Energy Conservation Potential in industries

- Energy Consumption - Conservation Demand Forecast for Agriculture Sector (*unit: KTOE*)



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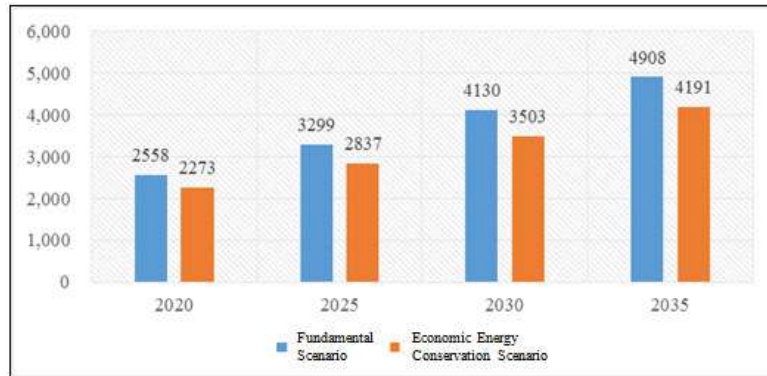


II. VNEEP 3 Draft Programme



Energy Conservation Potential in industries

- Energy Consumption - Conservation Demand Forecast for Service Sector (unit: KTOE)



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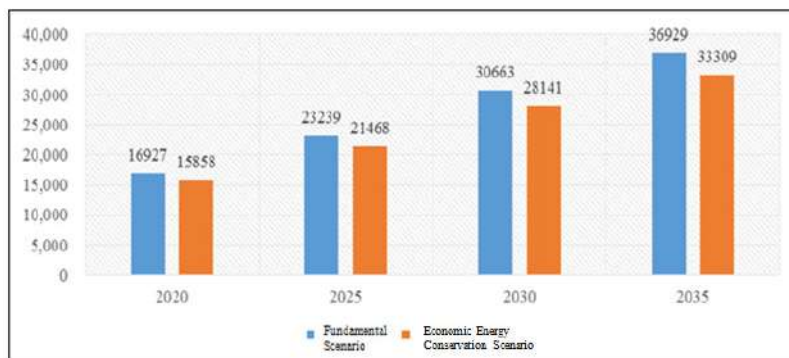


II. VNEEP 3 Draft Programme



Energy Conservation Potential in industries

- Energy Consumption - Conservation Demand Forecast for Transport Sector (unit: KTOE)



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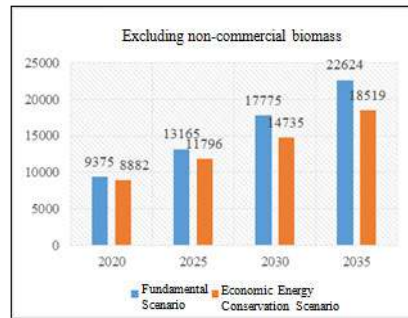
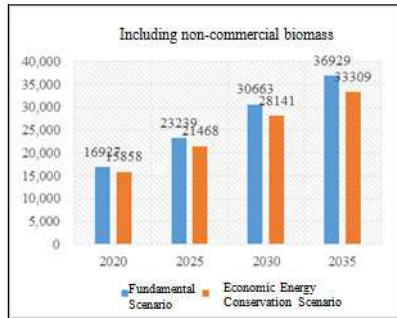


II. VNEEP 3 Draft Programme



Energy Conservation Potential in industries

- Energy Consumption - Conservation Demand Forecast for Household Sector (unit: KTOE)



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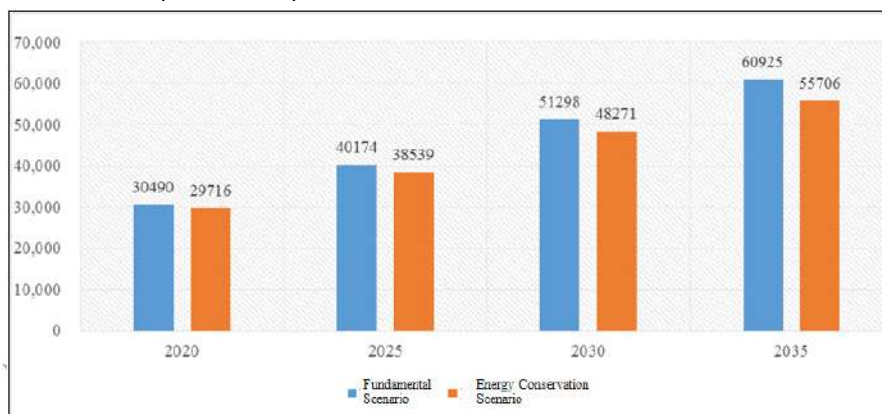


II. VNEEP 3 Draft Programme



Energy Conservation Potential in industries

- Energy Consumption - Conservation Demand Forecast for Industrial Sector (unit: KTOE)



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II. VNEEP 3 Draft Programme



Energy Conservation Potential in industries

- Summary of Energy Conservation Forecast Result (unit: KTOE)



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II. VNEEP 3 Draft Programme



Challenges and drawbacks

- Lenient enforcement of Energy Efficiency and Conservation regulations: A great number of companies have not thoroughly complied with regulatory requirements from issued Law, Decrees, Circulars and Decisions;
- Community and corporate awareness is still limited;
- There were many hindrances in managing local businesses, disconnected management among local governing Department;
- Lack of support mechanism for enterprises to replace outdated production lines with high efficiency ones; Enterprises have inadequate funds or are unable to access soft credit loans for energy conservation projects;

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II. VNEEP 3 Draft Programme



Challenges and drawbacks

- Fund from the State budget for the Programme regularly arrived late and is low. Meanwhile, the subjects within the programme's framework are varied;
- Electricity and energy prices are still low. Therefore, it is not encouraging enough for enterprises to invest in EE solutions and technologies
- Macro-economic challenges are also barriers in investing in EE projects and make enterprises put EE solutions behind other issues.
- After VNEEP 1 & 2, many programs and activities in EE is interrupted which affected reaching EE targets and may also influence Vietnam's commitment in greenhouse gas emission reduction.

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II. VNEEP 3 Draft Programme



Standpoints

- Sustainable and efficient use of national resources, enhance national competitiveness, greatly contribute to Vietnam's commitments towards NDC and Paris Agreement on climate changes;
- Energy Efficiency and Conservation is a strategic, permanent and long-term task which ensures national energy security;
- Contribute to the development and establishment of the society with with energy efficiency and conservation awareness;
- Inherit positive outcomes from Vietnam - National Energy Efficiency Programme period 2006-2015.

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MINISTRY OF INDUSTRY AND TRADE

II. VNEEP 3 Draft Programme



Principles

- Mobilize all social resources to cope with energy efficiency and conservation demands;
- Conduct institutional capacity enhancement in the implementation of energy efficiency and conservation policy;
- Make the most of international commitment to human resource development, financial capability, and advanced technique and technology as the foundation for the development of national capacity in energy efficiency and conservation;
- Advance technology and technical potential in energy efficiency and conservation field; and
- Become a critical element in national energy policy

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MINISTRY OF INDUSTRY AND TRADE

II. VNEEP 3 Draft Programme



Overall Objective

- Mobilize all domestic and international resources for the promotion of energy efficiency and conservation via the synchronous and end-to-end solutions in governance of government and development of policy enforcement; research and development of science, product, and technology; training and development of human resources; international collaboration in energy efficiency and conservation;
- Establish the habit of energy efficiency and conservation in all aspects of social activities; decrease energy intensity in industrial sectors; make energy conservation a mandatory indicator for key energy users with guidance towards green growth, greenhouse gas emission reduction, and sustainable development;
- Achieve the efficiency rate of 8 - 10% per total national commercial energy consumption for 2019 - 2030.

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II. VNEEP 3 Draft Programme



Specific objective, period to 2025:

- Finalize the legal regulations and policies for energy conservation;
- Reduce average energy loss/consumption in industrial sectors/subsectors comparing to 2015-2018.
- Develop and implement energy conservation practice standard/procedure for 30% transport means;
- 70% industrial zones and 50% industrial clusters have access to and apply energy efficiency and conservation measures;
- Ensure 100% key energy users utilize energy management system in compliance with regulations.
- A minimum 80% provinces and municipalities formulate and approve local EE plans/programs;

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II. VNEEP 3 Draft Programme



Specific objective, period to 2025:

- 60 to 80 construction projects to receive green construction certificates and/or EE construction certificates;
- Formulate and implement market transformation in energy performance for at least 05 popular products in the market;
- Provide training and certify 3,000 energy managers/auditors;
- Maintain and develop a network of EE units promoting green production in at least 50 provinces and municipalities;
- Build at least: (i) 03 national training institutions in EE; (ii) 01 greenhouse gas emission-free building model; (iii) 01 EE city model; (iv) 05 project models for capital loans to raise awareness on energy efficiency and conservation;
- Establish Foundation for Promoting Energy Efficiency and Conservation through socialization, funds and cooperation with domestic and international individuals and organizations.

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II. VNEEP 3 Draft Programme



Specific objective, period to 2025:

- Reduce average energy loss/consumption in industrial sectors/subsectors comparing to 2015-2018.
- Develop and implement energy conservation practice standard/procedure for 50% transport means;
- 90% industrial zones and 70% industrial clusters have access to and apply energy efficiency and conservation measures;
- 100 to 150 construction projects to receive green construction certificates and/or EE construction certificates;
- Provide training and certify 5,000 energy managers/auditors;
- 100% provinces and municipalities formulate and approve local EE plans/programs;
- Build at least: (i) 05 greenhouse gas emission-free building models; (ii) 03 EE city models to raise public awareness on energy efficiency and conservation;

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II. VNEEP 3 Draft Programme



Subject, scope and duration of the Programme

- Subjects of the Programme are all agencies, entities and individuals participating in energy activities and management in Vietnam;
- Other specific subjects.
- The Vietnam - National Energy Efficiency Programme is implemented and applicable across the whole country.
- The Programme shall be implemented from 2019 to 2030 and divided into two phases, phase I until 2025 and phase II is 2026-2030.

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II. VNEEP 3 Draft Programme



Key objectives of the Programme

Validate, develop and complete energy efficiency and conservation policy and institution

- Validate, amend, supplement and streamline the legal normative document system for energy efficiency and conservation; study to develop regulations for energy management applicable for industrial zones clusters;
- Study and formulate regulations for issuing energy efficient certificate to EE measures;
- Study, develop and issue policies and regulations for energy service companies (ESCO) model.
- Validate, amend, and supplement technical standards and norms for energy efficiency and conservation;

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II. VNEEP 3 Draft Programme



Key objectives of the Programme

Validate, develop and complete energy efficiency and conservation policy and institution

- Develop a system for capacity development, recognize and announce energy audit entities meeting regulatory standards;
- Validate, develop and issue energy consumption norms for: industry, agriculture, transport, construction and service sectors/sub-sectors; industrial zones and clusters;
- Develop policy and mechanism promoting EE in small and medium-sized businesses and encouraging public-private cooperation in implementing EE solutions and integrating RE.

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MINISTRY OF INDUSTRY AND TRADE

II. VNEEP 3 Draft Programme



Key objectives of the Programme

Provide technical assistance, facilitating projects in energy efficiency and conservation

- Innovate energy conversion technology and eco-friendly technological procedures for energy efficiency and conservation;
- Study and apply new technologies in manufacturing and producing high energy efficiency equipment, machine, production line, vehicle for transport, communication, telecommunication, irrigation, and marine creature exploitation/fishing, etc.
- Invest, repair and replace to EE vehicles, equipment and appliances; integrate EE solutions to r public work, building, industrial zone, industrial cluster, urban lighting system, transport road, industrial manufacturing factories;

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MINISTRY OF INDUSTRY AND TRADE

II. VNEEP 3 Draft Programme



Key objectives of the Programme

Provide technical assistance, facilitating projects in energy efficiency and conservation

- Manufacture EE equipment, vehicles and materials;
- Support in implementing a dissemination and distribution system for efficient and eco-friendly products;
- Support transformation to EE equipment and RE solutions in households;
- Other activities relating to Energy Efficiency and Conservation

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II. VNEEP 3 Draft Programme



Key objectives of the Programme

Apply information technology in cost-effective, efficient and safe use of energy

- Establish national database for Energy Efficiency and Conservation;
- Utilize smart and integrated equipment and technology to management and operation of energy consumption system.
- Develop software and provide guidance on its utilization in managing and updating data about EE that are suitable for energy users and energy management units from central to local level.

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II. VNEEP 3 Draft Programme



Key objectives of the Programme

Capacity building in energy efficiency and conservation

For State's governance authorities:

- Trainings and capacity building on management of energy saving practice in compliance with legal regulations for personnel and focal points in EE from central to local level; trainings on technical expertise in EE.

For research institutes, training facilities, provincial/city energy conservation centers, ESCOs:

- Compile training and teaching materials and guidelines for capacity enhancement in energy efficiency and conservation;
- Validate, supplement and elaborate relevant contents related to energy efficiency and conservation into energy curriculum in teaching institutions across the education system.
- Strengthen nationwide energy conservation and green production network from central to local level.

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II. VNEEP 3 Draft Programme



Key objectives of the Programme

Capacity building in energy efficiency and conservation

Energy users:

- Develop training plan, conduct capacity enhancement for internal officers and workers about energy efficiency and conservation;
- Organize workshops and seminars, and exchange and share experiences in safe and efficient energy practices;
- Form partnership for experience sharing in developing and practicing energy efficiency and conservation between entities

For credit institutions:

- Organize training and capacity buildings in attracting and evaluating financing projects in EE;

For social political organizations, social and trade organizations:

- Training and disseminate EE initiatives, experiences and solutions.

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II. VNEEP 3 Draft Programme



Key objectives of the Programme

Inspect, monitor and evaluate energy efficiency and conservation practice result

- Provide training and guidance on monitoring, investigation and evaluation of relevant subjects' compliance with EE legislation;
- Enhance conducting audit and monitoring compliance with energy efficiency and conservation legislation against energy-utilizing and consuming individuals and entities specified in the Law on Energy Efficiency and Conservation and sub-laws;
- Develop Manual for monitoring and evaluating compliance with EE legislation.

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II. VNEEP 3 Draft Programme



Key objectives of the Programme

Communication for community's awareness raising

- Develop communication plan for energy efficiency and conservation through different channels in order to raise awareness and accountability of the public, businesses and society;
- Develop communication plan for energy-efficient products, including organizing educational programs providing information for corporates and communities, organizing competitions and recurring awards for fairs and exhibitions promoting energy conservation products and technologies.

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II. VNEEP 3 Draft Programme



Key objectives of the Programme

Strengthen international partnership

- Enhance international collaboration, improve and intensify technical exchange and cooperation with international and non-government organizations in energy efficiency and conservation;
- Facilitate the recipient of technical support, technology transfer and training in energy efficiency and conservation activities;
- Look for, mobilize and implement technical and finance support projects relating to Energy Efficiency and Conservation;
- Jointly develop bilateral/multilateral financial mechanism to promote implementation of EE solutions.

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II. VNEEP 3 Draft Programme



Key objectives of the Programme

Conduct scientific research and technology development in energy efficiency and conservation

- Mobilize human resource, research equipment, fund from the State budget, and domestic and foreign individuals and organizations to develop national science and technology capacity in energy efficiency and conservation;
- Formulate and implement core technical research programs to develop and apply EE scientific technologies to practical production.

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II. VNEEP 3 Draft Programme



Key objectives of the Programme

Establish the Foundation for Promoting Energy Efficiency and Conservation

- Study to develop, suggest and establish the Foundation for Promoting Energy Efficiency and Conservation on the basis of mobilizing all domestic and foreign resources for the implementation of energy efficiency and conservation in Vietnam.

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II. VNEEP 3 Draft Programme



Programme Operational Fund

Fund from the State Budget

- VND600 billion is extracted from the State budget which is allocated to relevant Ministries/divisions based on annual Budget estimate conducted by Programme implementation units.
- People's Committee of provinces and municipalities secure and extract funds from local budget to implement tasks and projects under the Programme locally.

Fund from international donors

- Non-returnable support: anticipated approximately 1,000 - 1,500 billion VND from bilateral and multilateral support programs in energy sector and EE promotion;
- ODA and soft loans from governments, international organizations, development partners, credit institutions; EE investment from domestic credit institutions: anticipated 3,200 to 4,300 billion VND.

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III. Evaluation of the Programme's effectiveness



Evaluation of the Programme's feasibility

- The project closely sticks to energy efficiency and conservation standpoint and guidance;
- The standpoints, principles, goals, and objectives are consistent with the necessity and scientific foundation of energy efficiency and conservation;
- Objectives and implementation solutions.

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III. Evaluation of the Programme's effectiveness

Challenges

- Implementation time of the Programme, especially in 2019, is not much left;
- Energy price structure does not promote the urgent need of energy efficiency and conservation;
- Expenditure for the implementation of the project (scale and budget distribution).

Remedies

- Determination of the political system;
- Support from domestic and foreign experts, international funding for promoting energy efficiency and conservation in Vietnam.

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III. Evaluation of the Programme's effectiveness

Social impact

- Beneficiaries of the programmes are of great number: Energy utilizing and supplying organizations and individuals and government authorities are all benefiting from the Programme's outcomes;
- The Programme is the measure for primary energy supply reservation and national development towards sustainability, green growth and national competitiveness enhancement;
- Establish a society with awareness of energy efficiency and conservation.

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MINISTRY OF INDUSTRY AND TRADE

III. Evaluation of the Programme's effectiveness

Socio-economic impact

- Contribute to the implementation of National Energy Policy;
- Reduce the increase in commercial energy supply by average 0.8%/year for 2020 - 2030;
- Reduce greenhouse gas emission by 10 – 15 million tonnes of CO₂ equivalent;
- Achieve energy saving of 55 – 60 million TOE.

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MINISTRY OF INDUSTRY AND TRADE

III. Evaluation of the Programme's effectiveness

Sustainability of the Programme

- Enhance national competitiveness;
- Is an important solution for the implementation of National Policy on Energy, Sustainable Development Policy and Green Growth Policy.

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IV. IMPLEMENTING ENTITIES



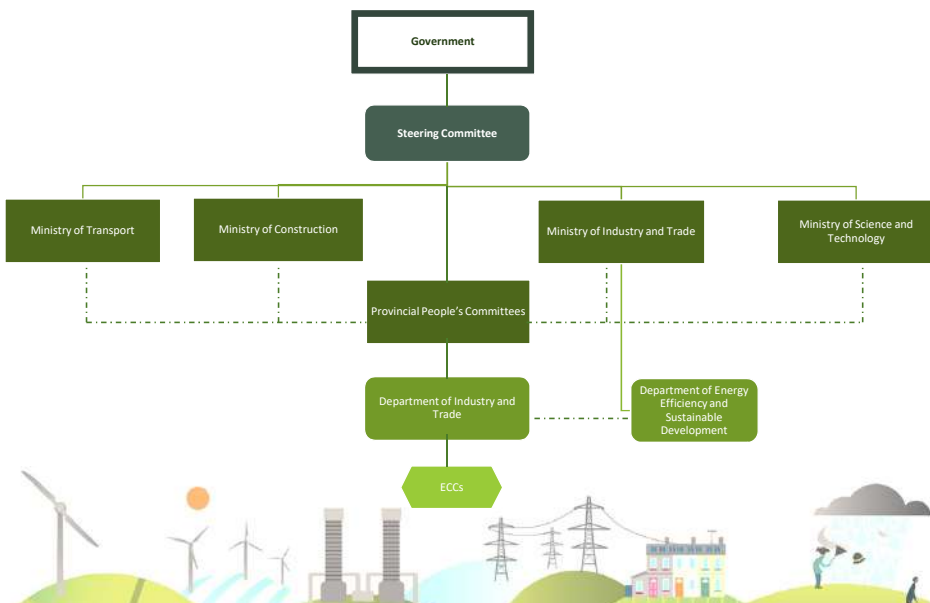
inter-sector collaboration

- Establish National Steering Committee for Vietnam National Energy Efficiency Programme (hereinafter called the "Program Steering Committee ") with the Deputy Prime Minister acting as the Head, Minister of Industry and Trade acting as Standing Deputy Head, and representatives from other Ministries: Construction, Transport, Agriculture and Rural Development, Training and Education, Information and Communication, Planning and Investment, Finance, Natural Resource and Environment, Vietnam Union of Science and Technology Associations as members of the Steering Committee;
- Steering Committee has an approved operational regulation, a support Office located at Ministry of Industry and Trade's establishment and a founding decision issued by Minister of Industry and Trade.
- The Programme's regular tasks at local level is taken over by DOITs under supervision of a focal point staff

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IV. IMPLEMENTING ENTITIES





IV. IMPLEMENTING ENTITIES



Responsibilities of Ministries and Departments

Ministry of Industry and Trade

Standing bodies under Programme Steering Committee are responsible for supporting Ssteering Committee and monitoring the implementation of activities under the Programme

- Annually organize the development, selection and consolidation of duty suggestions for relevant Ministries/Departments
- Direct and collaborate with relevant ministries/departments to validate, amend, supplement, develop, submit to issuance-competent level or issue mechanisms and policies for energy efficiency and conservation;
- Direct and collaborate with relevant ministries/departments to validate, amend and supplement EE technical standards and norms;

Provincial People's Committees

- Develop and approve the Programme's operational plan for implementation in locality, in which EE roadmap and target are clearly specified according to authorised bodies; allocate funds, and investigate, monitor and evaluate the quality, progress and results of EE implementation in locality.
- Study and issue incentives, encouragement and award mechanism and policy for individuals and entities; Direct competent authorities to strengthen investigation and acceleration of legal compliance, etc.

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IV. IMPLEMENTING ENTITIES



Responsibilities of Ministries and Departments

Ministry of Construction

- Direct and collaborate with relevant ministries/departments to validate, study, supplement, develop and issue technical norms and standards for energy-utilizing supplies, materials, equipment, production lines under Construction sector;
- Direct and collaborate with relevant ministries/departments to amend, supplement and issue design standards for industrial and civil construction, building, urban, different types of traffic road; validate, study, develop and issue energy use norms for each construction sector/sub-sector, etc.

Ministry of Transport

- Direct and collaborate with relevant ministries/departments to validated and perfect EE policy mechanism and technical norms and standards under Construction sector;
- Direct and collaborate with relevant ministries/departments to amend, supplement and issue energy use norms for transport vehicles, traffic light system, etc.

Ministry of Science and Technology

- Direct and collaborate with relevant ministries/departments to validate, supplement and develop the national standard on energy efficiency for energy-utilizing equipment and vehicles;
- Collaborate with the Ministry of Industry and Trade in developing a list of scientific research and technology development duties on energy efficiency and conservation.

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Thank you for listening!

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March 2018

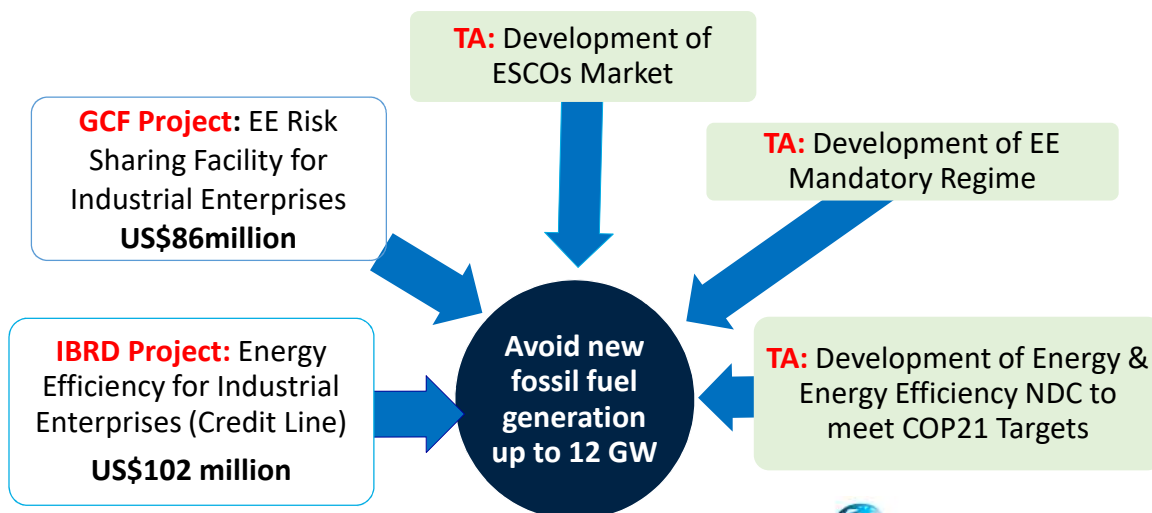
World Bank Support to MOIT to Scaling Up Demand Side EE in Vietnam

World Bank Energy Engagement in Vietnam

Four Strategic Pillars of Energy Sector Support

- (1) Financial Sustainability of Power Sector and Private Sector Participation
- (2) Energy Efficiency (Demand and Supply)**
- (3) Renewable Energy
- (4) Competitive Power and Gas Markets

Pillar II: Demand Side Energy Efficiency



TA: Development of ESCO's Market in Vietnam



Scope of Work

- Activity 1: Review current status of ESCO in Vietnam, including related laws and regulations
- Activity 2: Review lessons from international experiences and identify possible approach, recommend options for ESCO development in Vietnam
- Activity 3: Proposal for the Role of the Carbon Finance in the Implementation of the EE Measures in Industry and Identification of the Use of the Carbon Payment by the CPF

ESCO Status in Vietnam

- ❑ ESCO model has not been able to gain traction
- ❑ Limitations of the ESCO models being promoted
- ❑ Numerous small local potential ESCOs do not have sufficient balance sheets to take on the debt under a shared-savings model
- ❑ Lack the necessary demonstrated track record and financial means to offer a credible performance guarantee under the guaranteed-savings model

ESCO Status in Vietnam-Barriers

Legal Barriers

- ❑ Currently no regulation governing ESCOs' activities
- ❑ No guideline on how to use ESCO services
- ❑ No regulation on intermediary organizations (third parties) to solve the problems arising between ESCOs and enterprises
- ❑ No regulation for state-owned enterprises to actively and fully participate in the ESCO market

ESCO Status in Vietnam-Barriers

Market Barriers (from survey)

- ❑ Lack of capacity among existing companies to operate as real ESCOs due to the lack of EE project implementation demand
- ❑ Lack of an ESCO certification process leading to confusion in the market
- ❑ Lack of adapted financing mechanisms preventing ESCOs from offering the needed services expected by the market on a wide scale
- ❑ Lack of an EPC-enabling legal framework to support EPC adoption
- ❑ Lack credibility due to the absence of demonstration projects
- ❑ Lack of opportunities to work on public facilities

ESCO Status in Vietnam-Barriers

Financial barriers

- ❑ Lack of funds from the private sector
- ❑ Lack of preferential credit programs for EE investments in general and EPC projects in particular

Other Specific Issues

- ❑ ESCOs do not trust that potential clients will pay them for the delivered services, let alone for generated savings
- ❑ ESCO clients do not trust service providers have the capacity to meet expectations in the delivery of their services and the capacity to charge fair prices for such services

Proposed Strategy for ESCO Market Development

- ❑ **Developing the Private Sector:** ESCO technical capacities, End-user awareness and capacities in dealing with EPC, Market credibility and relationships, ESCO's access to adapted financing
- ❑ **Developing the Public Sector:** Adapted legal framework, Strong experience in EPC project procurement, Adapted funding and financing instruments for the public sector, Country-wide technical support for EPC project preparation
- ❑ **Supporting Early Demonstration Projects:** Grants supporting the whole development phase of projects, including IGA development and the EPC negotiation between ESCOs and clients, Guarantees to support project financing, if needed, Grants offsetting the cost of using independent third parties in charge of the M&V of savings generated by projects
- ❑ **Setting Up EVN as an Accelerator:** Traditional ESCO, Super ESCO

Proposed Recommendations for ESCO Market Development

- 1 – **Develop Standardized Documents for Market Use:** Contracts, Request for proposal templates, Investment-grade audit templates, M&V plan templates, Guidelines for customers
- 2 – **Create an ESCO Certification**
- 3 – **Introduce and Support the Role of Facilitators**
- 4 – **Promote an Internationally Recognized M&V Protocol**
- 5 – **Train and Promote Independent M&V Specialists**
- 6 – **Build ESCO Capacity**
- 7 – **Raise Awareness Among End Users**
- 8 – **Support the Development of an Adapted Financing Offer**
- 9 – **Design Specific Tools for a Public-Sector Program**
- 10 – **Support the Development of An Adapted Financing Mechanism**

THANK



YOU

