



PROGRESS REPORT 2019

VIET NAM ENERGY PARTNERSHIP GROUP

Presented at High-Level Meeting on 10 December 2019

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ACCRONYMS

ADB	Asian Development Bank
AECIS	Alternative Economique Communautaire d’Innovation Sociale
ASEAN	Association of Southeast Asian Nations
DEESD	Department of Energy Efficiency and Sustainable Development of MOIT
DEPP	Danish Energy Partnership Programme in Viet Nam
DOIT	Department of Industry and Trade
DP	Development Partner
DPPA	Direct Power Purchase Agreement
EA	Energy Access
EAG	Economic Advisory Group of the Prime Minister of Viet Nam
EE	Energy Efficiency
EECB	Energy Efficiency in Commercial and Residential Buildings Project
ERAV	Energy Regulatory Authority of Viet Nam
EREA	Electricity and Renewable Energy Authority of MOIT
ESCO	Energy Service Company
EU	European Union
EUD	Delegation of the European Union to Viet Nam
EVEF	EU-Viet Nam Energy Facility
EVN	Vietnam Electricity
FTR	Financial Transmission Right
GCF	Green Climate Fund
GHG	Greenhouse gas
GIZ	Deutsche Gesellschaft für Technische Zusammenarbeit
GSO	General Statistics Office
HLM	High-Level Meeting
IFC	International Finance Corporation
ISTAT	Italian Statistics Office
JICA	Japan International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau
KOICA	Korea International Cooperation Agency
MACDI	Micro-finance and Community Development Institute Viet Nam
MARD	Ministry of Agriculture and Rural Development
MFD	Maximizing Finance for Development (initiative of the World Bank)
MOIT	Ministry of Industry and Trade
MOF	Ministry of Finance
MPI	Ministry of Planning and Investment
MRV	Measuring, Reporting and Verification

MW	Megawatt
MYTO	Multi-Year Tariff Order
NDC	Nationally Determined Contributions
NEEAP	National Energy Efficiency Action Plan
ODA	Official Development Assistance
PDP	Power Development Plan
PEEB	Programme for Energy Efficiency in Buildings
PM	Prime Minister
PPA	Power Purchase Agreement
PPP	Public Private Partnership
RBF	Result-based Financing
RE	Renewable Energy
REBA	Renewable Energy Buyers Alliance
RPS	Renewable Portfolio Standards
SMO	System Market Operator
SNV	SNV Netherlands Development Organisation
TA	Technical Assistance
TWG	Technical Working Group
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
VAT	Value Added Tax
VBF	Viet Nam Business Forum
VEIC	Viet Nam Energy Information Center
VEIS	Viet Nam Energy Information System
VEPG	Viet Nam Energy Partnership Group
VIET	Vietnam Initiative for Energy Transition
V-LEEP	Vietnam Low Emission Energy Program
VNEEP3	Viet Nam National Energy Efficiency Program
VRE	Variable Renewable Energy
VREM	Viet Nam Retail Electricity Market
VWEM	Viet Nam Wholesale Energy Market
WB	World Bank
WWF	World Wide Fund for Nature

BACKGROUND

The Viet Nam Energy Partnership Group (VEPG) was established in June 2017, in an agreement between the Government of Viet Nam and Development Partners, with the purpose of strengthening mutual partnerships and better aligning and coordinating external support to the Energy Sector in Viet Nam. The VEPG is chaired by the Ministry of Industry and Trade (MOIT) and Co-Chaired by the Delegation of the European Union to Viet Nam (EUD) and the World Bank (WB).

The overall objective of the Viet Nam Energy Partnership Group (VEPG) is thus to work towards effective and efficient international support to sustainable energy development in Viet Nam, in line with national law and international agreements, of which Viet Nam is a member.

To deliver on this goal, the VEPG serves as a multi-level forum that supports high-level policy and thematic dialogue on energy development in the context of the Sustainable Development Goals and the Paris Agreement on climate change. It provides a platform to facilitate the alignment of external support with Viet Nam's energy and climate change strategies and action plans, international commitments and private investments, thereby reinforcing coherence and effectiveness and avoiding duplication of international support to the energy sector. Furthermore, through information sharing and communication between national and international stakeholders, the VEPG contributes to enhancing learning and improving information-based decision making.

The VEPG focuses on 5 priority areas - renewable energy, energy efficiency, energy sector reform, energy access and energy data & statistics – and through dedicated Technical Working Groups (TWG) it provides relevant, high-level inputs and recommendations to inform Viet Nam's energy sector policy development and planning processes.

The VEPG holds an annual High-Level Meeting (HLM), which focuses on enabling and maintaining a continuous energy policy dialogue towards achieving the objectives set forth under the partnership. It is a keystone occasion to convene high-level stakeholders of Viet Nam's Energy Sector to address priority topics relevant to ongoing and future energy policy and energy sector planning processes. Furthermore, it serves as a platform to present the work of the VEPG's five (5) Technical Working Groups (TWG) and to showcase and report on the progress of activities and commitments made in the framework of the partnership.

OVERVIEW

This Progress Report provides the progress and status of the activities of the Viet Nam Energy Partnership Group (VEPG) in the period from the 2nd High-Level Meeting held on 26 November 2018 to the 3rd High-Level Meeting, taking place on 10 December 2019.

The report provides a detailed overview of the guidance provided by the Steering Committee during the reporting period, the activities carried out by the VEPG Secretariat – hosted by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) as part of the EU-Viet Nam Energy Facility (EVEF)– in support of the VEPG and presents the progress made by the Technical Working Groups (TWG) with a special focus on the implementation of the forty (40)

policy recommendations formulated by the 5 TWGs and endorsed at the 2nd HLM in 2018. For each of the VEPG thematic focus areas, this report lays out concrete progress and achievements and provides an analytical review and contemplations on the status quo of development of key topics within those areas.

This report will be presented at the 3rd VEPG HLM on 10 December 2019 for approval by the Chair and Co-Chairs of the VEPG.

VEPG STEERING COMMITTEE

The 4th Steering Committee Meeting, which took place within this reporting period on 28 May 2019, aimed at reflecting on the outcomes of the 2nd VEPG HLM and, more importantly, served as an important platform for further guidance and recommendations from the Chair and Co-Chairs of the Steering Committee to the TWGs on the implementation of the Policy Recommendations, as well as on monitoring/reporting on the advancement of the policy recommendations towards the 3rd HLM in December 2019. Furthermore, the replacement of Co-Chair positions in the TWGs was discussed.

The Chair and Co-Chair of the Steering Committee asked the TWGs to intensify their work as Viet Nam is currently in an intense process of developing and revising key political strategies and energy sector plans, the outcome of which will decide on the success or failure of the further energy transition of the country. The TWGs are therefore in a unique position to positively contribute to this process. TWG are thus to broaden their scope of work to accommodate all the critical topics that relate to the development of the PDP 8 and focus more on grid integration of renewable energies. Furthermore, the TWGs were asked to convene more frequently and to integrate workshops and meetings that are co-organised with Development Partners into the VEPG framework.

In line with the above, the Steering Committee discussed the current scope of each TWG and asked the Secretariat and the TWG Chairs and Co-Chairs to support them on reassessing their scope and focus and integrate concrete proposals into this Progress Report. All TWGs were asked to discuss this with their members in the upcoming TWG meetings and develop proposals for readjustment, if deemed necessary. More specifically, the Steering Committee discussed the need to address the topic of Grid Integration of renewable energies within the TWG structure and asked the TWGs and Secretariat to consider the integration of this topic in one or more TWGs, where appropriate.

Furthermore, the Steering Committee asked the TWGs to intensify the work and at the same time use potential synergies with ongoing bilateral projects and workshops more often. With this aim, workshops of Development Partners on VEPG-relevant topics could be held in conjunction or within the VEPG framework.

In addition to TWG related topics, the objectives, scope and timelines – formulated in a concept note – for the 3rd HLM foreseen for end of 2019 were discussed and approved by the SC.

With regards to departing VEPG Co-Chair and VEPG Technical Working Group (TWG) Co-Chairs in 2019, the SC decided that they should be replaced by senior representatives of the same DP

institutions to allow continuity for the VEPG work processes. H.E. Mr. Bruno Angelet, Co-Chair of the VEPG on behalf of the Delegation of the European Union to Viet Nam will be replaced by his successor as new Head of Delegation H.E. Mr. Pier Giorgio Aliberti. New Co-Chairs have been assigned for TWG 1, 2 and 3 accordingly (more information in the following TWG sub-chapters).

The 5th Steering Committee Meeting, which took place within this reporting period on 6 November 2019, reflected on the progress of the VEPG and the TWG work in the past period in particular and discussed the draft VEPG Progress Report to be presented at the HLM 2019. The Steering Committee provided guidance and recommendations for the Secretariat and the Chair and Co-Chairs of the TWGs for the finalization of the Progress Report and for the further work of the VEPG in 2020.

In its discussion on the progress of VEPG work the Steering Committee highlighted some critical challenges of the Vietnamese energy sector, in particular the current challenge to meet the strongly increasing electricity demand and at the same time reducing CO₂ emissions, promoting renewable energy technologies and increasing efforts in energy efficiency and power market reform – all this with an estimated sector investment need of 10 billion USD annually until 2030.

The Steering Committee concluded that the VEPG can play a crucial role in supporting these key policy processes and in supporting the mobilization of further development partner support for these tasks.

The Steering Committee also advised to use the upcoming ASEAN Chairmanship of Viet Nam as an opportunity to link the national sector dialogue of the VEPG to the ASEAN process.

The Steering Committee further agreed to conduct a Mid-term Review of the VEPG in the first half of 2020 to deliver guidance for the work of VEPG in 2020/2021 and beyond 2021. It also provided guidance for the concept, planning and preparation of the 3rd HLM and 1st VEPG Stakeholder Forum on 10 December 2019.

VEPG SECRETARIAT

1. Coordination and Planning

The VEPG Secretariat prepared an overall **VEPG Annual Workplan (2019)** and supported the organisation of the **VEPG's Steering Committee Meetings**, which took place on 27 May 2019 and on 6 November 2019.

The Secretariat also supported the TWGs in developing their individual work process, as well as with the organisation and facilitation of **TWG meetings**. Table 1 provides an overview of the TWG meetings held in the reporting period.

Table 1 – TWG meetings in the reporting period

TWG	3 rd Meeting	Key Topics/Highlights
TWG 1 RE 	 15. March 2019	<ul style="list-style-type: none"> • Consultation workshop on Solar FIT 2 Draft • Discussion of draft concept for Solar Rooftop Programme
TWG 2 EE 	 16. April 2019	<ul style="list-style-type: none"> • Presentation and first consultation on VNEEP 3 • Discussion of EE Benchmarking and Energy Efficiency in Buildings
TWG 3 ESR 	 12. June 2019	<ul style="list-style-type: none"> • Joint meeting with MOIT/USAID consultation workshop on the DirectPPA • Discussion of models and solutions for the implementation of the pilot model
TWG 4 EA 	 6. June 2019	<ul style="list-style-type: none"> • Updates on Rural Electrification Programme (introduction of Dec. 1740) • Focus topic Off-Grid solutions for Energy Access
TWG 5 D&S 	 18. April 2019	<ul style="list-style-type: none"> • Discussion on VEIS Roadmap and Action Plan • Update on PDP 8 process and DP support • Input from GSO on activities in energy data and cooperation project with Italy

TWG	4 th Meeting	Key Topics/Highlights
TWG 1 RE 	 23. Sep 2019	<ul style="list-style-type: none"> • Updates on current policy processes (Solar FIT 2, RTS Programme, bioenergy FIT etc.) • Focus topic: RE grid integration (grid assessment in Southern Vietnam)
TWG 2 EE 	 2. Oct 2019	<ul style="list-style-type: none"> • Presentation and discussion on draft National EE Action Plan (NEEAP) • Discussion of MRV Framework for EE/VNEEP and EE Database
TWG 3 ESR 	 12. Sep 2019	<ul style="list-style-type: none"> • Report on first half year of VWEM operation • Update on DirectPPA process and pilot scheme • Discussion on priority topics / scope-of-work for TWG 3 (competitive power market)
TWG 4 EA 	 3. Oct 2019	<ul style="list-style-type: none"> • Progress and Challenges in Rural Electrification • Discussion of Energy Access projects in different VN regions
TWG 5 D&S 	 26. Nov 2019	<ul style="list-style-type: none"> • Discussion on VEIS Circular and Pre-Feasibility Study • Discussion of approved outline for PDP 8 • Discussion of Energy Balance 2017

Furthermore, as a follow-up action after the 2nd HLM, the VEPG Secretariat developed a monitoring framework to systematically collect key information on implementation progress of the forty (40) policy recommendations formulated by the TWGs, including timeline for implementation, indicators, progress and status information and DP support secured for each TWG. The information gathered through this framework forms the basis of this report.

2. Organisation of Annual High-level Meetings (HLM)

The VEPG Secretariat organised the **Second (2nd) High-Level Meeting (HLM) of the VEPG** in close coordination with the Steering Committee. The 2nd HLM was held on 26 November 2018 at Melia Hotel in Hanoi and gathered nearly 200 high-level representatives from the public sector, development partner organizations, private companies, research institutions and the

civil society. A summary of the event can be found [here](#) and full proceedings can be downloaded [here](#).

Forty (40) concrete policy recommendations from the 5 TWGs were presented and endorsed at this event, and the Chair and Co-Chairs of the VEPG committed to carrying the TWG's key messages into ongoing policy and planning process in the energy sector. The policy recommendations were put together in a publication that can be downloaded [here](#).

Furthermore, best practice examples from selected stakeholders in the Vietnamese energy sector with a direct link to the recommendations were showcased at this HLM. Best practice presentation can be downloaded [here](#).

The **preparations for the 3rd HLM in 2019**, commenced in Q2 2019 with the preparation of a concept note and concluded on 10 December with the successful implementation of the event. The overall aim of the 3rd HLM is the reporting of the progress of the VEPG to the different stakeholder groups in the energy sector (based on this report), as well as the organisation of a "Stakeholder Forum" to foster a high-level expert exchange on "hot topics" in Viet Nam's energy sector, with a focus on Energy Sector Planning, Energy Efficiency and Opportunities of Distributed Renewable Energy.

3. Energy Sector and Partner Support

The Secretariat created a **Development Partner (DP) Project Database**, which provides a comprehensive overview of all financial and technical assistance going into Viet Nam's energy sector. The information was gathered through a survey. The database that now consists of more than 60 DP projects is reviewed and updated regularly (last review conducted in September 2019 and next review foreseen in mid-2020) and can be downloaded [here](#).

Similarly, the Secretariat has set-up an online **Legal Database**, which now contains over 40 legal documents in both Vietnamese and English and is continuously expanded. Documents include Prime Minister Decisions, MOIT documents, Consultation Documents, EVN guidelines, and others. The database can be accessed [here](#).

Several events have been organised under the framework of the VEPG, including the launch of the National Rooftop Solar Promotion Programme in July 2019, in Ho Chi Minh City. In response to the guidance of the VEPG Steering Committee, the Secretariat has supported TWGs in organizing meetings in conjunction with bi-lateral partner events such as the meeting of TWG 3 on Energy Sector Reform in cooperation with the MOIT/ERAV-USAID Consultation Workshop on the DPPA in June 2019.

On several occasions throughout the reporting period, the Secretariat provided support to partners of the VEPG by making available **information and expertise**. For instance, the Secretariat supported the UK-ASEAN Low Carbon Energy Programme, as well as the Danish Energy Partnership Programme, during their scoping and project approval phases and Italy/AECIS in their cooperation project with the General Statistics Office (GSO). The Secretariat also supported the development of the Energy Outlook Report 2019 with the organisation of focus meetings with relevant VEPG partners and the Danish Energy Partnership Project (DEPP). The Secretariat also supported the DEPP mid-term review in March 2019.

The Secretariat further supported MOIT with information sharing or dissemination and with various consultation processes. Consultation meetings were organized on the draft Solar Feed-in-Tariff (FIT) 2 in April 2019 and on the newly launched Vietnam Energy Efficiency Programme 3 (VNEEP 3) in April and October 2019 (see also individual TWG chapters). Furthermore, the Secretariat supported DEESD/MOIT in disseminating information on the Earth Hour 2019 in March 2019.

The Secretariat strives to foster and facilitate coordination of DP activities also beyond the TWG and HLM meetings. For instance, the Secretariat participated in a DP coordination meeting on offshore wind energy in October 2019 and offered further support on coordinating activities on this new topic on the VEPG platform.

The Secretariat provided keynotes and inputs to various sector events, such as the launch of the Vietnam Initiative for Energy Transition (VIET) in September 2019. In preparation of the September 2019 High-Level Climate Summit in New York, the Secretariat provided inputs to the UN Consultation Workshop on the NDC implementation in Viet Nam in May 2019.

The Secretariat has also engaged in increasing the **involvement of the private sector** in the VEPG work. For instance, it invited EuroCham and the Vietnam Business Forum (VBF) to join the dialogue and TWG process who have become regular and active participants of VEPG meetings since then. Furthermore, the VEPG Secretariat participated in energy related private sector events, such as the regular member meetings of the Renewable Energy Buyers Alliance (REBA). During the reporting period, the engagement of private sector stakeholders, such as renewable energy or energy efficiency project developers or investors in the VEPG work process and dialogue has increased substantially.

4. Communication and Networking

Throughout the reporting period, the Secretariat regularly developed new content for the **VEPG Website**. Next to the documents mentioned in the previous chapter, the website features VEPG partner events (>30 workshops and events within the reporting period), including for instance the MOIT Earth Hour events and support of public consultation on Solar FIT 2. This information is also regularly disseminated among TWG members via email. The Website attracted **4,215 visits** with **4,037 unique visitors** in the period from 01/06 to 01/11.

The Secretariat works actively on expanding the **VEPG Network**. For instance, KOICA and JICA have joined VEPG TWG meetings from early 2019 and have been active members and contributors since then. Furthermore, the Secretariat has actively engaged in increasing private sector participation to the VEPG by reaching out to EuroCham, AmCham and VBF, increasing numbers of domestic and international RE/EE developers and investors participating at the TWG meetings.

TWG1 - RENEWABLE ENERGY



Chair: Mr. Nguyễn Ninh Hải (EREA/MOIT)

Co-Chair: Mr. Martin Hoppe, until June 2019; Mr. Sebastian Paust, from July 2019 (German Embassy)

Meetings in reporting period: 15 March 2019 and 23 September 2019

1. Activities and Highlights

The main focus of TWG 1 in the reporting period was to **support EREA/MOIT in developing key policy processes on Renewable Energy**, with a focus on the second phase of the Solar Energy Feed-in-Tariff (Solar FIT 2) and the development of supporting measures for the Rooftop Solar market of Viet Nam.

In this context, TWG 1 conducted a **consultation meeting in March 2019**, based on the first draft of the Solar FIT 2 which resulted in a **comprehensive consultation paper** that was submitted to EREA/MOIT as an input to the formal consultation process of the Ministry.

Furthermore, TWG 1 used the consultation meeting on the Solar FIT 2 to present and **discuss the first outline of the Rooftop Solar Promotion Programme (RTS Programme)** to get inputs and further support from other Development Partners and sector stakeholders.

In its 4th meeting, TWG 1 addressed the topic of grid integration of Renewable Energies and coordinated with other relevant MOIT divisions and the Chair of TWG 5. With this, TWG 1 followed the guidance from the VEPG Steering Committee to implement a cooperative approach in addressing the cross-cutting topic of grid integration of renewables.

With more than 40 to participants at each meeting, TWG 1 is showing **high participation of DPs and sector stakeholders** with an increasing **engagement of private sector representatives**. The TWG welcomed representatives of EuroCham, the Renewable Energy Buyers Alliance (REBA), the Viet Nam Business Forum (VBF) and an increasing number of domestic and international renewable energy and energy efficiency developers and investors.

The 3rd meeting of TWG 1, held on 15 March 2019, **focused on the draft Solar FIT**, based on the draft PM Decision *On the Mechanism to Encourage Solar Power Development in Viet Nam*, issued by MOIT on 21 February 2019. TWG 1 conducted the TWG meeting as a **consultation meeting** on the draft and collected comments and recommendations for the finalization of the draft regulation.

Member comments focussed on **various aspects of the Solar FIT regulation**, including legal definitions, standards and technical specifications, capacity thresholds for rooftop solar systems, applicable business and investment models, Power Purchase Agreement (PPA) specifications, as well as methodological questions relating to the zonal FIT approach. The **consultation document** can be found [here](#).

Furthermore, **the first outline of the RTS Promotion Programme** that was initiated by EREA/MOIT and developed by USAID, GIZ and World Bank was presented and discussed during meeting. The RTS Programme is foreseen as a collaborate effort of the Development Partners and sector stakeholder, open for further contributions and engagement from other institutions and organisations. In the spirit of this approach, the TWG 1 meeting was used to invite DPs and sector stakeholders to join the process and contribute with support measures and activities that help to develop the RTS market in Viet Nam.

Replacement of the Co-Chair: At the 3rd Meeting of the TWG 1, the Co-Chair, **Mr. Martin Hoppe, German Embassy**, announced that his term was ending in June 2019. The VEPG Steering Committee agreed that the continuity in the work of the TWG is key, especially in the current phase of implementing the VEPG Policy Recommendations. Accordingly, the Steering Committee cordially asked the DPs that currently provide Co-Chairs for the TWGs to extend their commitment and to assign new senior representatives as replacements of the co-chairs. The German Embassy expressed their general willingness to continue the co-chairmanship of TWG 1. **Dr. Sebastian Paust, First Counsellor and Head of Development Cooperation at the German Embassy** was assigned by the German Embassy to take over the role of the co-chairmanship. He joined the 4th meeting of TWG 1 in his new role.

The 4th meeting of the TWG 1 was held on 23 September 2019 and focused on the current planning of EREA/MOIT regarding the development of the support and incentive framework for renewable energies. This included the current **Solar FIT 2** process, the ongoing development of a new **Biomass FIT** and the considerations for a revision of the **Waste-to-Power FIT**. Furthermore, the ongoing development of auctioning mechanisms, with support from World Bank and ADB, were discussed and further coordination on this agreed.

In addition to this, TWG 1 discussed the topic of **grid integration of renewable energies**. In cooperation with the EREA Planning Division and TWG 5 (chaired by the Head of the EREA Planning Division), the meeting discussed preliminary results of a **grid assessment study** conducted by the **EVEF/GIZ project**. The study analysed capabilities of evacuating power generated by RE power plants in 5 Southern provinces and proposed solutions to secure the evacuation of 6,300 MW in the selected area. A second phase of the assessment will include a total of 22 provinces and deliver results for the upcoming TWG 1 meeting in early 2020. With this, TWG 1 **followed the guidance from the VEPG Steering Committee** to implement a cooperative approach by coordinating with relevant TWGs on the cross-cutting topic of grid integration of renewables. Members provided valuable comments on the topic, including considerations to include battery storage or other flexible solutions to improve power transmission to the assessment. Furthermore, the **Chair of TWG 5**, Mr. Jakob Lundsager, proposed to **utilize expertise from the TWG 5 on Data and Statistics** for the grid assessment, and, in particular, the results of the Energy Outlook Report 2019 that will be finalized by beginning of November.

Furthermore, the 4th meeting of TWG 1 focused on collecting and capturing feedback from TWG members and sector stakeholders regarding the **progress of implementation of the TWG 1 Policy Recommendations** (*see following section*).

2. Progress on Policy Recommendations Implementation

With the input from TWG 1 members and support of the VEPG Secretariat, the Chair and Co-Chair assessed and captured the progress on implementing the TWG 1 Policy Recommendations. A detailed overview on progress for each recommendation is provided in the monitoring matrix in Annex I. This section gives an overview of key highlights:

Improving and developing the legal framework for Renewable Energy investments

- **Progress:** A key milestone during the reporting period was the **revision of the Power Purchase Agreement (PPA) for wind energy** projects based on PM Decision 02/2019/QĐ-TTg on *Amendments of Decision 37/2011/QĐ-TTg on Support Mechanism to Develop Wind Power Projects in Viet Nam* (dated 15/01/2019). This regulation complemented the revision of the recently adjusted Wind Power FIT (PM Decision 39/2018/QĐ-TTg from 10/09/2018).

To further support solar energy investments in the sector, the **draft of the Solar FIT 2**, replacing PM Decision 11/2011/QĐ-TTg, was developed by MOIT **with support of TWG 1** and inputs from VEPG partners (the final decision of the Prime Minister is pending at the time of the formulation of this Report. Its assessment will be a focus of TWG 1 work in the upcoming meeting in 2020). The **3rd TWG 1 meeting** was conducted as a **consultation meeting** to provide inputs to the drafting process in March 2019.

The support of **Rooftop Solar** development is a key **component of the TWG 1 Policy Recommendations**. Here, progress was made with the **revision of the legal framework** beginning of 2019, with PM Decision 02/2019/QĐ-TTg on *Amending and Supplementing PM Decision 11/2017/QĐ-TTg on the Mechanism for Encouragement of the Development of Solar Power Projects in Viet Nam* (dated 08/01/2019) and MOIT Circular 05/2019/TT-BCT on *Amending and Supplementing Circular 16/2017/TT-BCT guiding Project Development and the Standardized Power Purchase Agreement to be Applied for Solar Power Projects* (dated 11/03/2019). This revision made the transition from a net metering model for rooftop solar projects to a FIT for excess power sold to the grid.

For Rooftop Solar development, the comprehensive **RTS Programme was launched** on 25 July 2019 with the aim to **support the installation 100,000 solar PV rooftop systems** until 2025 based on MOIT Decision 2023/QĐ-BCD on the *Approval of the Rooftop Solar PV Promotion Programme* (dated 05/07/2019). The Programme contains a wide set of measures on standards and regulation, capacity building and training, market support and awareness raising and communication that shall enable investments and support market development.

Furthermore, the **models and concepts for an auctioning pilot** for solar energy have been further developed **with input from TWG 1** and VEPG partners in 2019.

- **TWG 1 and Partner Support:** During the reporting period, TWG 1 provided valuable support and inputs during meeting discussions and reflections on the draft Solar FIT 2 and the RTS Programme. The **3rd TWG 1 meeting** in March 2019 was conducted as a

consultation meeting to provide inputs to both processes and therefore helped EREA/MOIT to develop the draft policies and support activities for solar energy.

The **RTS Programme** specifically, is the result of a **collaborate effort** of **MOIT, USAID-V-LEEP, World Bank, the EU Delegation to Viet Nam** and further sector stakeholders. The official **launch** of the RTS Programme was organized **within the framework of the VEPG** in July 2019 in HCMC. TWG 1 has provided valuable inputs to the development of this Programme and will further work on mobilizing additional support and stakeholders to secure an even higher impact of the Programme.

Furthermore, various TWG 1 members are supporting EREA/MOIT on the different aspects of legal framework development for renewable energy. The **EVEF/GIZ project** supported on the drafting of the Solar FIT and is providing support to the ongoing development of the Biomass and Waste-to-Energy FIT, as well as the potential Biogas FIT amendment. Furthermore, **USAID/V-LEEP, World Bank, ADB** and **GIZ** have been supporting the development of the auctioning mechanism. **USAID/V-LEEP** is supporting EREA/MOIT on the concept development for an RPS scheme and ERAV/MOIT on the DPPA pilot process (also see TWG 3 chapter),

An **overview of development partner support projects** in the energy sector can be found [here](#).

- **Challenges:** The Solar FIT 1 that expired end of June 2019 enabled the installation of around 4,500 MWp of solar capacity by that date. Investments in wind power plants have been slowly taking up since end of 2018. However, regarding the capacity of the Vietnamese energy market to attract private sector investments in wind and solar power capacities there are still **concerns regarding the bankability** of the PPAs among investors and private sector stakeholders. Part of these concerns are the **curtailment risks**, specifically connected to the high concentration of project development in the Southern coastal provinces, paired with limited grid absorption capacities. The PPA risk-discussion will thus be **relevant for the coming phase of the 2nd Solar FIT** and the further development of the **wind power market** and should further be part of the TWG 1 stakeholder dialogue.

The further assessment of the solar energy market will depend on the final issuing of the Solar FIT 2. In either case, the **support for solar market development** should continue to be a **focus of TWG 1**.

Regarding Rooftop Solar development, additional efforts to improve market readiness, investor awareness, capacities of key market stakeholders and the further development and harmonization of standards and regulations are still needed in addition to the financial incentive of the planned Solar FIT 2. It is recommended that TWG 1 further supports the implementation of the RTS Programme and works on mobilizing additional DPs and stakeholders to join the process and provide input and support.

The transition to or introduction of **further incentive mechanisms and instruments**, such as **auctioning** or **Renewable Portfolio Standards (RPS)** and the **DPPA** need

further coordination and an integrated strategy. It is recommended that this topic is a key work focus for TWG 1 in the upcoming period; a task for which **coordination with TWG 3** will also be necessary. Specifically, the implementation of an auctioning pilot in 2020 and beyond should be in focus here as it needs good coordination among the various stakeholders that are involved or that are supporting MOIT in this process.

- *TWG 1 identified the key challenge of further developing the legal framework for renewable energy investments (procurement framework) in a way that it effectively incentivizes large amounts of private sector investments for RE power capacities. This is necessary to ensure power supply security next to a strongly increasing electricity demand and to prevent shortages in power capacities over the next years. TWG 1 can support this process with further inputs and consultation efforts.*
- *TWG 1 has agreed on cooperating closely with other relevant TWGs, such as TWG 3 on Energy Sector Reform, that focuses on regulatory aspects of the evolving competitive power market.*

Grid Integration of fluctuating Renewable Energies

- **Progress:** TWG 1 has taken up the discussion and work on the topic of Grid Integration of Renewable Energy in 2019. With the discussion on zonal approaches for FITs and the development of an auctioning mechanism, new opportunities arise in **setting incentives for an optimized capacity allocation** for renewable energies. This will be a further focus of the TWG work but needs close **coordination with further TWGs** on different ongoing policy processes – in particular, the **development of PDP 8** with an integrated perspective on capacity and grid planning but also with ongoing grid assessments and the ongoing efforts to increase the **flexibility of the power system** in terms of market framework and grid management or demand response.
- **TWG 1 and Partner Support:** During the reporting period, TWG 1 **initiated the discussion** on the topic and discussed first grid capacity assessment exercises in its 4th meeting. To facilitate this, TWG 1 invited experts from TWG 5 and other EREA divisions to a joint discussion. With this, TWG 1 followed the guidance from the VEPG Steering Committee to **implement a cooperative approach** in addressing the **cross-cutting topic of grid integration** of renewables.

Various VEPG partners support MOIT in the topic of Grid Integration. **GIZ/Germany** supports ERAV/MOIT in the framework of a **Smart Grid project** on developing the legal and technical framework for the power sector, as well as with capacity building for various stakeholders. On **PDP 8** development, the **World Bank** and **USAID/V-LEEP** are providing support to MOIT, specifically on the development of the PDP 8 methodology and the assessment of long-term power supply capacities. Furthermore, **DEPP/Denmark** is supporting ERAV/MOIT on the development of the Energy Outlook Report and related sector scenarios, as well as on the development of a suitable

methodology for the PDP 8. JICA is supporting with further transmission grid studies and ADB with a focus on battery storage and implications for grid management.

- **Challenges:** The key task for the upcoming period is to **further encourage the collaborative and inter-disciplinary work** on the **cross-cutting topic of grid integration** to support MOIT in unlocking all technical and regulatory potentials for the integration of largely increasing amounts of fluctuating renewable energies to the system.

- *Unlocking all technical and regulatory potentials for the integration of largely increasing amounts of fluctuating renewable energies to the system is a key challenge for the energy sector. TWG 1 is working on furthering the collaborative work across all relevant TWGs on this topic.*
- *It is recommended, that the VEPG Secretariat, together with TWG 1 Chair and Co-Chair, acts as the focal point for the dialogue on the topic within VEPG and draws on expertise and inputs from other relevant TWGs and works in close cooperation with other TWG Chairs and Co-Chairs and relevant MOIT entities.*

3. Outlook and Recommendations

It is recommended that the work of the TWG 1 in the next reporting period focuses on the following priorities:

- Further work on the **development of the future procurement framework for renewable energies** (incentive mechanisms and support instruments) should be a key focus of TWG 1. This framework needs to be developed along the **guiding principles** of harmonization and streamlining of the regulatory framework, non-discrimination of RE technologies against other technologies, long-term compatibility with the Viet Nam Wholesale Electricity Market, compatibility with the specific Vietnamese market and public-sector environment, long-term signalling for investors and specificity of policy instruments for different RE projects or market segments. With this, it can be ensured that **private sector investments are attracted** in the necessary magnitude to **secure the strongly increasing energy supply**.
- Apart from the current focus of TWG 1 on (on-shore) wind and solar energy, **further renewable power sources** should become priority for the work, such as **wind off-shore** and **bioenergy**. Apart from this, innovative renewable energy applications, such as **integrated approaches of energy and agricultural production** (e.g. Agri- or Aqua-Photovoltaic), should be explored.
- On the topic of **grid integration**, TWG 1 has initiated the work and will continue to focus on that topic in **close cooperation** and with strong support and inputs from **other relevant TWGs**, such as **TWG 3** (working on regulatory aspects of the power market

that have impacts on grid integration or the development of flexibility mechanisms in the system such as demand respond) and **TWG 5** (supporting the development of PDP 8), as well as from **other MOIT departments** and entities, such as the power grid section under ERAV or the Planning and Grid Divisions under EREA.

TWG 2 - ENERGY EFFICIENCY



Chair: Mr. Trịnh Quốc Vũ (DEESD/MOIT)

Co-Chair: Ms. Akiko Fujii, until July 2019; Ms. Sitara Syed from August 2019 (UNDP Viet Nam)

Meetings in reporting period: 16 April 2019 and 04 October 2019

1. Activities and Highlights

The main focus of TWG 2 in the reporting period was to **support DEESD/MOIT in implementing the Viet Nam Energy Efficiency Programme 3 (VNEEP 3)**, based on Prime Minister Decision 280/QĐ-TTg on the *Approval of the National Energy Efficiency Programme (VNEEP) for the Period 2019-2030* (dated 13/03/2019).

In this context, TWG 2 focused on initial support for the development of the **National Energy Efficiency Action Plan (NEEAP)**. TWG 2 utilized both meetings in the reporting period to carry out a consultation on the VNEEP3 (based on the issued PM Decision 280/2019) and the NEEAP (based inputs from a senior consultant of the EU/GIZ Energy Support project).

Further focus topics of TWG 2 addressed in the reporting period were **Energy Efficiency in Buildings, Benchmarking Energy Efficiency**, and the **development of an MRV Framework** for emission reductions and energy savings from EE, as well as the related **Energy Efficiency Database**.

With 40 to 50 participants at each meeting, TWG 2 is witnessing **very high engagement of DPs and sector stakeholders**.

The 3rd meeting of TWG 2, held on 16 April 2019, **introduced the recently issued PM Decision 280/QĐ-TTg on the VNEEP 3** and discussed details of the further planned implementation process and inter-agency government coordination mechanisms.

TWG 2 members provided **valuable comments and feedback to DEESD/MOIT**, addressing key aspects of the implementation roadmap and the upcoming development of the **NEEAP**. This included comments and inputs regarding the **synchronization** of the central Action Plan **with the local and provincial level**, the **requirement of reliable data** regarding energy consumption across localities and economic sectors, the need for developing a **framework for Measuring, Reporting and Verification (MRV)** of energy efficiency induced emission reductions and energy savings and the general question of **incentive mechanisms** to encourage investments in EE in different sectors. TWG members also reflected on the important **link between the VNEEP 3 and PDP 8** with respect to the implications that energy efficiency improvements have on the planning of generation capacity and grid infrastructure within the upcoming Master Plan.

Furthermore, TWG 2 addressed the topic of **Energy Efficiency Benchmarking**. USAID/V-LEEP representatives shared experience on their benchmarking activities in the **sugarcane, cement**

and **textile sectors** and provided important inputs on aspects of auditing, as well as financing and fund mobilization.

A further focus topic of the 3rd TWG 2 meeting was **Energy Efficiency in Buildings**. Experts from the UNDP project on Energy Efficiency in Commercial and Residential Buildings (EECB) and representatives from the GIZ Programme for Energy Efficiency in Buildings (PEEB) presented cross-cutting challenges and potential solutions to enhance energy efficiency in the building sector. The inputs from TWG members to the discussion included considerations on how to solve the **ownership-beneficiary issue**, the prospects of **Public Private Partnership models** for energy efficiency, as well as the potential of introducing **energy labelling** in the construction sector.

The 3rd meeting of the TWG 2 saw an increase in VEPG partner and sector stakeholder participation with a total of 50 participants, including new members e.g. from KOICA and JICA.

Replacement of the Co-Chair: The Co-Chair, **Ms. Akiko Fujii, Deputy Country Director, UNDP Viet Nam** announced the end of her term in Hanoi in June 2019 and expressed her organisation's willingness to continue the Co-chairmanship of the TWG 2 on Energy Efficiency. The Steering Committee agreed in its meeting on 28 May 2019 that the continuity in the work of the TWG is key, especially in the current phase of implementing the VEPG Policy Recommendations. Accordingly, the Steering Committee cordially asked the DPs that currently provide Co-Chairs for the TWGs to extend their commitment and to assign new senior representatives as replacements of the leaving Co-Chairs.

UNDP confirmed **Ms. Sitara Syed, Deputy Resident Representative of UNDP Viet Nam** to assume the role of Co-Chair for TWG 2 on Energy Efficiency with DEESD/MOIT starting in August 2019.

The 4th meeting of TWG 2, held on 02 October 2019, focused on the **National Energy Efficiency Action Plan (NEEAP)**. The draft NEEAP is being developed by MOIT in a consultation process that includes further line ministries of the central government, provincial governments and municipalities, as well as further agencies. GIZ experts provided inputs on the NEEAP activities and actions that were proposed to DEESD/MOIT in the framework of the EU-Vietnam Energy Facility support project (EVEF).

TWG 2 members provided **significant inputs and reflections to DEESD/MOIT on various aspects of the NEEAP**. A key consideration of TWG 2 members was the **need for coordination and harmonization of Development Partner support** in the further process of the NEEAP formulation and subsequent implementation. Overlap in support activities is to be avoided and at the same time potential gaps in supporting NEEAP activities should be identified. Various DPs used the opportunity to update on ongoing and planned projects or activities in support of energy efficiency targets and key objectives of the VNEEP 3. The **VEPG Secretariat offered to support MOIT's efforts to map donor support** in the energy efficiency sector in more detail and with direct links to the 16 specific objectives of VNEEP 3. Furthermore, the 4th meeting of TWG 2 focused on collecting and capturing feedback from TWG members and sector stakeholders regarding the **progress of implementation of the TWG 2 Policy Recommendations** (*see following section*).

2. Progress on Policy Recommendations Implementation

With the input from TWG 2 members and support of the VEPG Secretariat, the Chair and Co-Chair assessed and captured the progress on implementing the TWG 2 Policy Recommendations. A detailed reporting on progress for each recommendation is provided in the monitoring matrix in Annex I. This section gives an overview of key highlights:

Legal and Institutional Framework for Energy Efficiency

- **Progress:** A key milestone was reached with the **launch of VNEEP 3** (PM Decision 280/2019) in March 2019. The Programme includes **16 specific objectives for energy efficiency** and introduces **specific targets for various sectors**. It also foresees the development of **Provincial EE Action Plans**.

Regarding the institutional framework of VNEEP 3, the **establishment of the VNEEP 3 Steering Committee** is ongoing and the development of a **monitoring and MRV framework** was initiated. Furthermore, the work on **updating the Energy Efficiency Database** has started.

With these features, **multiple targets of the TWG 2 VEPG Policy Recommendations** are positively addressed.

Most importantly, the **NEEAP is under development** with comprehensive **consultation with relevant ministries and provincial authorities**.

A **circular on guidelines for the management and use of funds for VNEEP3** was developed in cooperation with the Ministry of Finance (MOF).

The topic areas 3 and 4 of the TWG 2 Policy Recommendations, the **development of supportive financing and investment mechanisms** and the **measures on awareness raising and capacity building**, are all expected **to be part of the NEEAP** and therefore need to be addressed and assessed in the context of further NEEAP implementation and the coordination of DP support activities.

- **TWG 2 and Partner Support:** During the reporting period, TWG 2 provided valuable support and inputs during meeting discussions and reflections on the VNEEP 3 and NEEAP preparation that helped DEESD/MOIT to further develop the implementation process of VNEEP.

A number of development partners **support DEESD/MOIT** on the VNEEP and NEEAP legal framework formulation, as well as on the development of the institutional framework for Energy Efficiency and in different economic or business sector activities. Among them the **EU-Viet Nam Energy Facility** (implemented by **GIZ**), **World Bank, ADB, USAID-VLEEP, Denmark, UNDP, UNIDO, UK, KfW, the Energy Conservation Centre Japan, KOICA** and **IFC**. Further support on the development of the institutional framework for Energy Efficiency, as well as support in different economic or business sectors is provided by UNDP.

Regarding partner support and engagement in the TWG work process, TWG 2 has **consistently had a high participation** of DPs and other public and **private sector**

stakeholders. Business associations, such as the Vietnam Business Forum (VBF) but also individual investors and energy efficiency investors, are engaged. Representatives from **other line ministries**, such as the Ministry of Construction (MOC), the Ministry of Transport (MOT) and the Ministry of Environment and Natural Resources (MONRE) also participate in the meetings.

An **overview of development partner support projects** in the energy sector can be found [here](#).

- **Challenges:** The key task for the upcoming period certainly is the **development of a concrete and comprehensive NEEAP**, as well as detailed **Action Plans at provincial and city level**.

In addition to that, the **legal framework** needs to be **further reviewed and adjusted** where necessary. This applies e.g. for the **Energy Efficiency Law and Decree 21 specifically**.

On the institutional side, the **EE Database** needs to be improved and a comprehensive and reliable **MRV Framework** needs to be developed. The monitoring and **steering mechanism for VNEEP 3** needs to allow for an effective implementation and enforcement of VNEEP 3 and NEEAP measures at all government levels of the country and across sectors.

A specific challenge that needs to be addressed with NEEAP measures is the **lack of technical capacities and awareness for Energy Efficiency** across sectors and relevant stakeholder groups and energy users. This specifically applies to industry on both sides, energy users, as well as energy efficiency companies and ESCO providers.

Looking at the magnitude of the task, the need of suitable **financing mechanisms and investment mobilization** was identified as another key challenge for a successful VNEEP 3 implementation. This includes all considerations to mobilize public and private, domestic and international funding and investment sources to ensure a stable and long-term support for NEEAP activities and VNEEP 3 implementation.

The **implementation of the NEEAP**, once developed and published, will require **enormous efforts** from both sides, the Vietnamese government and public sector and from international Development Partners. This requires a **consolidated, coordinated and cooperative approach** that involves a larger number of DPs and sector stakeholders, various government agencies beyond MOIT, as well as the private sector and financing institutions.

- *The key challenge for the upcoming period will be the finalization and implementation of a comprehensive and effective NEEAP. This includes the establishment of an effective monitoring, steering and enforcement mechanism for the large number of required energy efficiency measures across central and local government levels and economic sectors.*
- *Relating to this, there is the need to mobilize substantial funding from domestic and international sources. Here, as in other topic fields of the energy sector, the issue of the public debt-ceiling and current needs to revise the legal framework for ODA funding need to be addressed.*
- *In addition to public sector funding, substantial funding for energy efficiency measures needs to come from the private sector. To mobilize these private investments, e.g. coming from ESCO providers or private financing institutions, capacities need to be developed and awareness raising measures implemented.*

3. Outlook and Recommendations

Based on progress mentioned in Section 2 and identified challenges, it is further recommended that the work of TWG 2 for the next reporting period focuses on the following **key priorities**:

- The key focus of the TWG 2 work process should be on **finalizing and implementing the National Energy Efficiency Action Plan (NEEAP)**, as well as further **sectoral and provincial EE Action Plans**. With this, the NEEAP will be the **guiding work plan for TWG 2** in 2020 and beyond. TWG 2 with support from the VEPG Secretariat will further prioritize topic areas or specific tasks from the NEEAP for the upcoming TWG 2 meetings in 2020. With this objective in mind, TWG 2 will further work on including relevant line ministries such as the Ministry of Construction (MOC), the Ministry of Transport (MOT) and the Ministry of Planning and Investment (MPI) to the discussion and coordination process.
- Development Partners and further sector stakeholders should utilize the VEPG and more specifically the **TWG 2 platform** to **coordinate support efforts**, to **avoid overlapping and inefficient ODA allocation** and technical consulting and to leverage **potentials for synergies and collaborative action**.
- The development of **new financing mechanisms** and the **mobilization of public and private sector funds** for energy efficiency should be a key focus of the work of TWG 2 in the upcoming period. This includes the establishment of an **Energy Efficiency Fund** but also the support of the **development of functioning ESCO market**.

TWG 3 - ENERGY SECTOR REFORM



Chair: Mr. Phạm Quang Huy (EREA/MOIT)

Co-Chair: Mr. Franz Gerner, until June 2019; Mr. Rahul Kitchlu, from July 2019 (World Bank)

Meetings in reporting period: 12 June 2019 and 12 September 2019

1. Activities and Highlights

The main focus of TWG 3 in the reporting period was to **support ERAV/MOIT in implementing the Viet Nam Wholesale Energy Market (VWEM)**, based on Prime Minister Decision 63/2013/QĐ-TTg (dated 08/11/2013), on the roadmap for the power market in Viet Nam, MOIT Decision 8266/QĐ-BCT (dated 10/08/2015), on the detailed VWEM design and MOIT Decision 3038/QĐ-BCT (dated 10/08/2018), on the operation of the VWEM in 2019, as well as to **support the process of developing the pilot scheme for a Direct Power Purchase Agreement (DPPA)**.

In this context TWG 3 **reflected specifically on the first experience with the full operation of the VWEM** during the first half of 2019.

A further focus of TWG 3 has been on **providing inputs to the consultation process of the DPPA pilot scheme** and support MOIT in deciding on the appropriate model and implementation process for the pilot.

Responding to the **VEPG Steering Committee's** request, TWG 3 **re-assessed the scope of work and priority topics** of the working group with the objective to recalibrate and adjust its work to current sector developments and the landscape of DP support and to mobilize further sector stakeholders to join the work process.

For the 3rd meeting of TWG 3, the Chair and the Co-Chair agreed to leverage **synergies with the MOIT/USAID consultation workshop on the DPPA**. Since advancing the development of the DPPA is a key recommendation of the TWG 3 Policy Recommendations endorsed at the 2nd HLM in November 2018, the 3rd meeting of TWG3 was held in conjunction with the *Public Consultation Workshop on DPPA Design and Pilot Planning for Viet Nam* organised by USAID and MOIT/ERAV on 12 June 2019. At the workshop, several options of DPPA models were presented, based on leading practices, private sector input, and implementation success in other sectors. The draft design of a Pilot Programme with a total capacity of 400 MW which is planned to implement from 2020 to 2023 with the objective to test the DPPA mechanisms in a controlled environment, was presented to seek comments from participants, prior to official approval and rollout.

TWG 3 members provided **valuable comments and feedback to ERAV/MOIT** in the **discussion on the DPPA model** at the consultation workshop, addressing important aspects of the pilot design, such as potential investor risks related to curtailment procedures, treatment of cross-border financial agreements or the interlinkage of the pilot with the overall VWEM

process. The VEPG Secretariat presented on the activities of the VEPG partnership and the work of TWG 3 on the DPPA process. All feedbacks and comments from the consultation workshop were captured for the further TWG 3 work on this topic.

Replacement of the Co-Chair: During the first half of 2019, **Mr. Franz Gerner, Energy Sector Coordinator of World Bank Viet Nam** announced that he would leave his position at the World Bank in Viet Nam in June 2019. The Steering Committee agreed in its meeting on 28 May 2019 that the continuity in the work of the TWG is key, especially in the current phase of implementing the VEPG Policy Recommendations. Accordingly, the Steering Committee cordially asked the Development Partners that currently provide Co-Chairs for the TWGs to extend their commitment and to assign new senior representatives to replace the leaving Co-Chairs. The World Bank expressed their general willingness to continue the co-chairmanship of the TWG. **Mr. Rahul Kitchlu, Energy Sector Coordinator of World Bank Viet Nam**, accepted the role of the co-chairmanship, which he assumed on the 4th meeting of the TWG in September 2019.

The 4th meeting of TWG 3, held on 12 September 2019, focused on the **achieved experience in the official operation of the VWEM since January 2019**. TWG 3 invited **EVN-NLDC to provide a comprehensive report** on the power market development and the operation of the VWEM in the **first half of 2019**. EVN-NLDC also provided an **outlook on the development and VWEM operation** during the second half of 2019, including updates on the wider introduction of the cross-subsidizing mechanism and the expected development of renewable energy and other power generation capacities.

TWG 3 members provided important **comments and reflections on the VWEM operation** report, among others on **pricing models** and on options and specifics of the **market rules**.

Furthermore, the meeting provided an **update on the DPPA process** and reflected on the 3rd meeting of TWG 3 that was held in conjunction with the MOIT/USAID consultation workshop in June 2019. TWG 3 members provided **further valuable feedback and comments** on the detailed **implementation of the DPPA pilot**, among others addressing questions of taxation, location-related curtailment risks and general considerations of investors in the context of the pilot scheme.

Furthermore, the 4th meeting of TWG 3 focused on collecting and capturing feedback from TWG members and sector stakeholders regarding the **progress of implementation of the TWG 3 Policy Recommendations** (*see following section*).

2. Progress on Policy Recommendations Implementation

With the input from TWG 3 members and support of from the VEPG Secretariat, the Chair and Co-Chair assessed and captured the progress on implementing the TWG 3 Policy Recommendations. A more detailed overview on progress for each recommendation is provided in the monitoring matrix in Annex I. This section addresses the highlights:

Implementation of the Viet Nam Wholesale Energy Market (VWEM)

- **Progress:** Key progress on the **implementation and start of operation of the VWEM** was made over the past year. MOIT Decision 3038/QĐ-BCT was issued on 10/08/2018 providing the detailed planning for the operation of the VWEM in 2019. In addition to this, MOIT Circular 45/2018/TT-BCT, issued on 15/11/2018, and MOIT Circular 24/2019/TT-BCT, issued on 14/11/2019, further introduced regulations on the operations of VWEM,

Furthermore, the **pricing mechanism for public-utility products and services** to supply power to deep-lying, remote, border and island areas was issued with MOIT Circular 24/2018/TT-BCT on 31 August 2018.

With the **official operational start of VWEM beginning of 2019**, a key milestone of the government, as well as a key recommendation of the TWG 3 Policy Recommendations, were met with further implementation steps to follow.

- **TWG 3 and Partner Support:** TWG 3 provided valuable support and inputs during meeting discussions and reflections on the priorities of the VWEM implementation during the reporting period that helped ERAV/MOIT to further design the implementation process.

Currently, the main development partner **support to ERAV/MOIT** on the VWEM process is provided by the **World Bank**. Further support on certain design aspects of the VWEM has been provided by **ADB** and **New Zealand**.

Regarding partner support and engagement in the TWG work process, TWG 3 has **successfully worked on increasing participation** of further DP and other sector stakeholders. From the 2nd TWG meeting in 2018 to the 4th TWG meeting in September 2019, **participation doubled** and discussion on additional potential inputs and DP support to ERAV has taken up.

A full **overview of development partner support projects** in the topic field of Energy Access can be found [here](#).

- **Challenges:** Despite the successful start of the VWEM in early 2019, further implementation details and mechanisms for the operation of the VWEM have to be developed. This includes some of the specific policy recommendations of TWG 3:
 - The **cross-subsidy mechanism** among Power Corporations is still under development;
 - The **mechanism on managing the power system ancillary service (A/S) costs** of SMOs in the VWEM and the Competitive Electricity Retail Market (VREM) is still under development and support is needed to revise Circular 13/2010/TT-BCT;
 - Further work on the **Distribution Charge** is needed to finalize this task.

Apart from these topics that are part of the TWG 3 Policy Recommendations, ERAV/MOIT developed a **technical assistance needs list** (TA-list) with areas and activities that require further support, which was discussed with TWG 3 members during its 4th meeting on 12 September 2019.

This **TA-list addresses** further **aspects of finalizing the VWEM and VREM**, such as: the development of a regulatory framework for retailer utilities, the development of an ancillary service mechanism that accounts for a higher penetration of renewable energy sources, the integration of renewable energy sources into the competitive electricity market, the development of an electricity derivative market and a financial transmission right (FTR) mechanism for managing spot market risks, the integration of Demand Response in the VWEM, and further capacity building for ERAV (market monitoring) and SMO's (market and system operation).

- *Key challenge for the upcoming period will be to further support the process of implementing the Wholesale Energy Market (VWEM) and the Retail Electricity Market (VREM).*
- *TWG 3 agreed that the Technical Assistance (TA) needs list should be further prioritized in the TWG work process and discussed with DPs that have not been active in TWG 3 yet, in order to mobilize assistance for ERAV/MOIT in developing the VWEM and VREM. The VEPG Secretariat shall support this process and facilitate the exchange with further Development Partners.*

Development of a Direct Power Purchase Agreement (DPPA) Mechanism

- **Progress:** The ERAV/V-LEEP collaboration on the **development of a DPPA mechanism and pilot scheme** has **entered a final stage**. After concluding various studies on legal aspects, international best-practice, market surveys and financial flow analysis, a draft pilot design was developed, and a **suitable model selected**. In this process, private project developers and consumers were engaged to identify suitable DPPA approaches for Viet Nam's market and regulatory conditions. A draft PM Decision on the DPPA pilot mechanism was already concluded and circulated to other ministries for consultation, it is planned to be submitted to the Prime Minister in December.
- **TWG 3 and Partner Support:** The 3rd TWG 3 meeting, held in conjunction with the MOIT/USAID consultation workshop, as well as the 4th TWG 3 meeting provided valuable inputs to the discussion and for the finalization of the pilot scheme design. Currently, the main development partner **support to ERAV/MOIT** on the DPPA is provided by **USAID (V-LEEP Programme)**.
- **Challenges:** The remaining task for the successful implementation of the DPPA pilot is the **ongoing government review and approval process** regarding the selected model and detailed pilot scheme with corresponding legal and regulatory decisions.

With the **conclusion of this planning and development phase**, the application process could be started in late 2019 or early 2020.

- ***TWG 3 will further support the process of implementing the DPPA pilot scheme and provide a platform for sector stakeholder consultation.***

3. Outlook and Recommendations

In its 4th meeting in May 2019, the **VEPG Steering Committee asked the TWGs to review their scope-of-work and workplans** and adjust where necessary. This specifically also included TWG 3 with considerations to integrate topics of renewable energy grid integration or further regulatory topics with relation to the energy market development to the scope-of-work of the group.

The Chair and Co-Chair of TWG 3, with support from the VEPG Secretariat, **reviewed the scope-of work of the group** and collaboratively developed a **concept and scope-of-work topic list**. The main rationale of this reassessment was the decision to keep the TWG 3 focus within the framework of ***Regulatory Challenges for Developing a Competitive Power Market***. The topic list within this thematic framework includes the following aspects:

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

This concept was presented to the TWG 3 members in the 4th meeting, on 12 September 2019. **TWG 3 members agreed on the concept** for the scope of work and on the proposed topic list for the future work of the group. A **more detailed work plan shall be developed until the next meeting of TWG 3**, with feedback from members and the Chair and Co-Chair.

- TWG 3 further agreed to **closely coordinate** all topics **with other relevant TWGs to avoid overlap and maximize synergies**.
- Furthermore, it was decided that the **topic of grid integration of renewable energies** should be approached **as a cross-cutting topic** between the TWGs 1, 3 and 5, in particular. TWG 1 has already taken this up in its 4th meeting on 23 September 2019 when discussing a grid assessment undertaken in the Southern provinces by the EU/GIZ cooperation project.

Based on progress mentioned in section 2 and identified challenges, it is further recommended that the work of TWG 3 for the next reporting period focuses on the following **key priorities**:

- Further support of ERAV/MOIT regarding the tasks **of finalizing the Viet Nam Electricity Wholesale Market (VWEM) and the Viet Nam Retail Electricity Market (VREM)**. This specifically includes the **mobilization of further Development Partner support** for the detailed Technical Assistance tasks list.

The **VEPG Secretariat** will serve as a **facilitator and catalyst** for this task and will cooperate closely with the Chair and Co-Chair.

- **Support the implementation of the DPPA pilot scheme** and provide a platform for exchange, in particular with the private sector, project developers and buyers.

TWG 4 - ENERGY ACCESS



Chair: Mr. Nguyễn Duy Hòa (EREA/MOIT)

Co-Chair: Mr. Koen Duchateau (EU Delegation)

Meetings in reporting period: 6 June 2019 and 3 October 2019

1. Activities and Highlights

The main focus of TWG 4 in the reporting period was to **support MOIT in implementing the Target Programme for Electrification of Rural, Mountainous and Islands Areas for the 2016 - 2020 Period** (hereafter referred to as *Target Programme*), based on the Prime Minister Decisions 2081/QĐ-TTg (dated 08/11/2013) and 1740/QĐ-TTg (dated 13/12/2018).

In this context, TWG 4 focused specifically on the **financing/budget topic**, as well as on options of **sustainable renewable energy off-grid solutions** and the review and analysis of best practices regarding technical and business model options.

A further focus topic of TWG 4 was on **bioenergy solutions for rural areas**, thus also covering non-electricity related aspects of Energy Access. Here, TWG 4 focused on solutions for rural biomass and biogas use for cooking.

The 3rd meeting of TWG 4, held on 06 June 2019, **introduced the recently issued Prime Minister Decision 1740/QĐ-TTg on the Target Programme**. In order to provide inputs and suggestions for the further implementation of the Target Programme, the TWG **discussed several case studies on off-grid solutions and pilot projects** that were presented to the group by VEPG members, external experts and project owners. This included representatives from research institutions, provincial authorities, Civil Society Organisations and the private sector:

- The Institute of Energy presented the results of a study on **socio-economic co-benefits of energy access projects**, which included an **economic comparison** of power **grid extension** versus various **renewable energy off-grid solutions** across different rural power demand needs. The discussion provided valuable inputs regarding the social and economic benefits of off-grid electrification, as well as concrete suggestions regarding the appropriate design of RE off-grid systems.
- The DOIT of Quang Binh province shared their experience with an off-grid project supplying 1,233 households in 8 rural areas of the province. The discussion provided valuable feedback regarding **project implementation and operation** and the **related challenge of sustainability** of such off-grid projects.
- Green ID Viet Nam shared experience with off-grid systems in An Giang and Dak Lak provinces. The discussion provided insights on aspects of community involvement, inclusion of local businesses and consumers and success factors for **a sustainable implementation and operation** of rural off-grid power projects.

- Solar BK, as a Vietnamese market leader in solar energy technologies, shared information regarding **technology solutions for off-grid power supply** referring to several projects of the company in mountainous or island areas.

The 4th meeting of TWG 4, held on 03 October 2019, focused on the **progress of implementing the Target Programme** based on PM Decision 1740/QĐ-TTg and specifically on the budget and financing needs.

The discussion on the existing **financing gap** of the *Target Programme* provided useful inputs on **potential solutions** (e.g. blending of ODA loans with grants) and also **identified barriers** for such financing, in particular the ODA ‘debt ceiling’ issue, **needs to adjust the legal framework for ODA financing** and current **low priority of energy access**.

In order to gather further **knowledge and insights regarding off-grid project implementation** and related challenges and success factors, the group invited experts from the Power Engineering, Construction and Consulting Company 3 (PECC3) to present the recently conducted feasibility study on the Bach Long Vy Island off-grid project, located off the coast of Hai Phong. The presentation provided **valuable insights regarding design and operation related aspects** of such off-grid island systems. The Bach Long Vy Island project is a key project in the context of the Target Programme and the feasibility study, which has been approved by MOIT, and the successful implementation of the project will provide significant learnings for further projects in other regions of the country.

Furthermore, the 4th meeting of TWG 4 focused on collecting and capturing feedback from TWG members and sector stakeholders regarding the **progress of implementation of the TWG 4 Policy Recommendations** (*see following section*).

2. Progress on Policy Recommendations Implementation

With the input from TWG 4 members and support of the VEPG Secretariat, the Chair and Co-Chair assessed and captured the progress on implementing the TWG 4 Policy Recommendations. A detailed reporting on progress for each recommendation is provided in the monitoring matrix in Annex I. This section gives an overview of key highlights:

Providing financing for Energy Access

- **Progress:** Key progress on **implementing the Target Programme** and on **mobilizing required funds** was made over the past year: PM Decision 1740/QĐ-TTg was issued in December 2018 and MPI Decision 1066/QĐ-BKHDT provided the medium-term investment plan. Most localities have approved feasibility studies for the projects in the *Target Programme*. MOIT and the Ministry for Planning and Investment (MPI) are working on further investment preparations and instructions for project investors and owners.

To provide an additional financial incentive for rural biogas systems, MOIT is considering the development and introduction of a **Feed-in-Tariff (FIT) for biogas** in 2020. TWG 1 on Renewable Energy has addressed this topic as well and will cooperate with TWG 4 in the further course of the VEPG dialogue on this topic.

- **TWG 4 and Partner Support:** TWG 4 provided valuable support and inputs to MOIT for the implementation of the *Target Programme* and for the assessment of renewable energy and hybrid off-grid options for the increase and improvement of energy access in Viet Nam.

Regarding partner support, the **European Union** is providing strong financial and technical support to MOIT in the context of the EU budget support programme and the EU-Viet Nam Energy Facility (EVEF), implemented by GIZ.

Furthermore, a number of **local and international civil society and non-governmental development organisations**, such as GreenID Vietnam, WWF, SNV or MACDI are supporting energy access and rural electrification at local and community level.

A full **overview of development partner support projects** in the topic field of Energy Access can be found [here](#).

- **Challenges:** Despite the progress on implementing the *Target Programme*, the existing **large financing gap** and related **public debt ceiling** issues were identified as the key barriers for the successful implementation of the *Target Programme*. So far, state budget and the EU budget support programme only cover **18% of the funding required** to implement the *Target Programme* to reach 100% electrification in Viet Nam.

- *TWG 4 identified the ‘financing challenge’ of energy access and rural electrification as a key priority for the government and for the further work of the TWG and in general for the VEPG cooperation process.*

Assessing and developing off-grid solutions for Energy Access

- **Progress:** Key progress on **developing and implementing off-grid projects** was made over the past year: PM Decision 1740/QĐ-TTg was issued in December 2018 and MPI Decision 1066/QĐ-BKHDT provided the medium-term investment plan. The budget for the Cao Bang and Bach Long Vy island and further off-grid projects has been approved.
- **TWG 4 and Partner Support:** TWG 4 provided valuable inputs and reflections on the discussed renewable energy and hybrid off-grid projects and case studies.

Regarding partner support, the **European Union** is providing strong financial and technical support to MOIT in the context of the EU budget support programme and the EU-Viet Nam Energy Facility (EVEF), implemented by GIZ. A proposed study on off-grid systems and capacity building measures planned for 2020 are supposed to further support the process.

Furthermore, activities of **local and international civil society and non-governmental development organisations** are providing experience and insights to off-grid projects, such as the *1 Million Home Programme* of GreenID Viet Nam or other projects at local and community level.

- **Challenges:** The experience with first off-grid pilot projects in Viet Nam and the findings of initial studies are promising and deliver useful information for further project implementation. However, TWG 4 identified **further need for learning from domestic projects and international best-practice**. In particular, the **‘sustainability challenge’** remains a key challenge for off-grid power projects, i.e. the identification of general or specific (location, energy demand etc.) **success factors for the sustainable, long-term operation of off-grid projects** that generate direct financial and indirect social co-benefits for local communities, as well as for the private and public sectors.

- *TWG 4 identified the ‘sustainability challenge’ of off-grid projects as a key priority for the further work of the group. The continued study of domestic and international practice shall help to identify success factors for sustainable off-grid power projects and with this for a successful implementation of the Target Programme.*

Developing biomass and biogas for rural areas

- **Progress:** Regarding the development of a cross-sectoral, nationwide biogas strategy, the harmonization of related coordination mechanisms and the mobilisation of public and international funds only limited progress can be reported.

Within TWG 1, a discussion has been started on the potential introduction of a biogas FIT in 2020. This could support the development of rural biogas applications by opening additional revenue streams from small-scale rural projects that that generate electricity from biogas that exceeds the cooking demands of the local users or communities.

- **TWG 4 and Partner Support:** TWG 4 identified action areas for the further development of the rural biomass and biogas sector and related community projects.

Regarding partner support, the **SNV Netherlands Development Corporation** has been providing financial and technical support to this sector for many years with great success: currently > 170,000 small-scale biogas projects supported country-wide by SNV and 285,000 were sold in total for all MARD managed biogas programs of **ADB** and **World Bank**.

- **Challenges:** The key challenge identified for further developing this sector and for implementing the TWG 4 Policy Recommendations is the cross-sectoral and cross-ministerial character of the topic. Further coordination with MARD and related organizations and institutions in the energy-agriculture nexus needs to be developed. TWG 4 and VEPG in general need to identify options to facilitate this exchange and coordination in the further course of work.

- ***TWG 4 identified the challenge of cross-sectoral and cross-ministerial cooperation as a key priority for the further work of the group in this field. In addition to that, TWG 4 will cooperate and coordinate with TWG 1 regarding the considered implementation of a biogas FIT and will here focus on the needs and requirements of small-scale rural biogas applications.***

3. Outlook and Recommendations

Based on the above-mentioned progress and identified challenges, it is recommended that the work of TWG 4 for the next reporting period focuses on the following key priorities:

- Further work on identifying solutions to overcome the **‘financing challenge’ of energy access and rural electrification**. This could include, the identification and discussion of legal adjustments to the ODA financing framework to allow new financing solutions, such as blending of grants and ODA loans.

Since this financing challenge also applies to other topics within the energy sector, e.g. the financing of power grid extensions to allow the integration of increased RE capacity, this appears to be a **cross-cutting topic for the VEPG** work and should be addressed as a **key priority at the High-Level Meeting 2019**.

The task to work on the ‘financing challenge’ also requires further and intensified **coordination with other relevant line ministries**, MPI in particular, who could be more intensely included in the work of TWG 4.

- Support to overcome the **challenge of weak cross-sectoral and cross-ministerial cooperation** needed for rural bioenergy development by promoting a stronger cooperation between key stakeholders. Concretely, TWG 4 should engage in an exchange with the Ministry of Agriculture and Rural Development (MARD) and invite relevant representatives to the TWG 4 work process.

Regarding the TWG 4 recommendation of introducing further financial incentives for rural biogas applications, the **coordination with TWG 1 on Renewable Energy** should be intensified to jointly discuss a potential FIT for small-scale biogas applications and the specific requirements of farmers and biogas producers in rural areas.

- Contribute to improving the **sustainability of off-grid projects** by promoting an increased exchange on replicable and scalable national and international best practices. Learning from these best practices could be enhanced by including international expertise, e.g. from the Alliance of Rural Electrification, or from other off-grid power markets in the region.

TWG 5 - ENERGY DATA AND STATISTICS



Chair: Mr. Nguyễn Tuấn Anh (EREA)

Co-Chair: Mr. Jakob Stenby Lundsager (DEPP/Denmark)

Meetings in reporting period: 18 April 2019 and 26 November 2019

1. Activities and Highlights

The main focus of TWG 5 in the reporting period was on **supporting MOIT in developing the framework and foundation for the Viet Nam Energy Information System (VEIS)**.

In this context, TWG 5 focused specifically on the development of the **VEIS Roadmap and Action Plan**, issued with MOIT Decision 4651/QĐ-BCT on 14 December 2018 as well as the further **implementation of the VEIS** (drafting the MOIT Circular on the VEIS).

Furthermore, TWG 5 supported the preparation and early development processes of **the Power Development Plan 8 (PDP 8)** with a specific focus on data and methodology aspects.

TWG 5 further coordinated with the **General Statistics Office (GSO)** on the task of enhancing Energy Data and Statistics in Viet Nam.

The 3rd meeting of TWG 5, held on 18 April 2019, **introduced the recently approved MOIT Decision 4651/QĐ-BCT** on the *Action Plan for the Information System of the Energy Sector in the Period 2019-2024* (VEIS Action Plan).

Currently **GIZ**, on behalf of the **EU-Viet Nam Energy Facility (EVEF)**, is supporting EREA/MOIT in the development of the legal framework for the VEIS. In the meeting, GIZ presented its **support activities for the VEIS Action plan**, including the support to EREA for the development of the VEIS Circular which serves as the legal basis for the establishment of the VEIS and the development of a feasibility study report on the required investment and financial resources to implement the VEIS.

TWG 5 members provided **valuable comments and feedback to EREA/MOIT**, addressing key aspects of the implementation of the VEIS. TWG members reconfirmed that the **main focus of TWG 5** should be the promotion and support aiming at the **establishment of the VEIS**. Further member inputs supported early action on the establishment of the **Viet Nam Energy Information Center (VEIC)**. In addition, TWG members emphasized that TWG 5 is the focal point for the topic of developing and establishing the Energy Balance for Viet Nam. For this topic, TWG 5 **invited the GSO** to the meeting for an exchange and potential coordination.

The meeting also emphasized the importance of **coordinating with other TWGs** on relevant data topics, in particular with **TWG 2** regarding the ongoing development of the **Energy Efficiency Database** and the development of the **MRV Framework for Energy Efficiency** related emission reductions.

TWG 5 invited the **GSO and the Italian cooperation AICS**, which supports GSO, to the meeting to exchange on the activities and responsibilities of GSO in the energy sector and to coordinate action related to the VEIS development and implementation. This included a discussion on the tasks of the GSO in collection data for the National Statistical Indicator System and indicators on energy production, export and import, energy consumption and energy balance of several key products as well as on the development of the Energy Balance Table which GSO has developed for the past period of 2016-2017.

TWG 5 further focused on **PDP 8** and the planning for the implementation phase of PDP 8 development. **USAID/V-LEEP** and **World Bank** shared information on the ongoing preparation phase of PDP 8 and their support activities to EREA/MOIT with a focus on methodology, data collection and further system analysis. TWG 5 members reflected on the PDP progress and the existing challenges and provided valuable comments for the further development of the Plan. Among others, TWG 5 concluded that the PDP 8 needs to ensure that Viet Nam not only meets its **Nationally Determined Contributions (NDC)** under the UNFCCC framework but should go beyond this to ensure a long-term **sustainable development of the power sector**. Furthermore, TWG 5 analysed that the **implications of the new Planning Law** on the development and implementation of PDP 8 should be carefully analysed.

The meeting also updated the **Work Plan for 2019**, as well as a **priority task list** for the further work of the group that strongly focuses on the VEIS Action Plan.

The 4th meeting, held on 26 November 2019, focused on the **draft MOIT Circular on Providing Regulations on the Energy Information System (VEIS Circular)**. The circular ensures the legal basis and will be followed by a feasibility study to support a decision on the investment project for VEIS. It was at the meeting explained that the circular ensures data collection authority within MOIT while data exchange with other Ministries and organisations will be ensured through data sharing agreements.

Furthermore, the meeting discussed inputs on **PDP 8** based on the recently issued PM Decision on the Terms of Reference for the development of PDP 8 and collected inputs and comments from TWG 5 members. A representative from Institute of Energy, the expected lead consultant for the development of the PDP 8, presented the current progress on PDP 8 work, timeline and an overview of support activities from the Development Partners.

In addition to that, the 4th TWG 5 meeting discussed the **Vietnam Energy Outlook Report 2019** which was launched 4 November 2019. The Outlook presents key findings and policy recommendation but also a rich and well documented analytical setup including modelling tools and input data. The members were requested to use the Outlook and its analytical setup to support MOIT in planning exercises incl. the PDP 8. Furthermore, the **Energy Balance** for Viet Nam and implications for sector development was discussed. Representatives from the General Statistics Office (GSO) presented and discussed the newly developed Energy Balance for the year 2017 and the discussion provided valuable inputs for the further development of the Energy Balance and the connection to the VEIS process.

In the second half of October, TWG 5 members were included in the assessment of **progress of implementation of the TWG 5 Policy Recommendations** via an online questionnaire (see following section).

2. Progress on Policy Recommendations Implementation

With the input from TWG 5 members and support of the VEPG Secretariat, the Chair and Co-Chair assessed and captured the progress on implementing the TWG 5 Policy Recommendations. A detailed overview on progress for each recommendation is provided in the monitoring matrix in Annex I. This section gives an overview of key highlights:

Establishing the legal and institutional framework for the VEIS

- **Progress:** Key progress was achieved with the **approval and issuing of the VEIS Action Plan** based on MOIT Decision 4651/QĐ-BCT on the *Action Plan for Information System of the Energy Sector in the Period 2019-2024* (dated 14/12/2018).

In phase 1 of the VEIS Action Plan (2019-2021) the legal framework and infrastructure will be developed, along with activities in capacity building and awareness raising. The systems will also be tested, and several output products will be produced. In phase 2 (2022-2024), the legal framework will be completed, and main investment projects deployed to finalize the VEIS infrastructure.

Until end of 2019, EREA/MOIT will develop and issue the **Circular on the establishment of the VEIS**, which will define key features of the VEIS including the participating agencies and their relevant responsibilities, input data and sources, data collection forms, and system outputs as well as the organizational structure and focal point in charge of the system management. Furthermore, EREA/MOIT will also deliver a **report on the investment policy** for the development of the VEIS and prepare the initial structure including human resources, equipment and facilities for the VEIS.

- **TWG 5 and Partner Support:** TWG 5 provided valuable inputs and comments on the **VEIS Action Plan** and developed a **detailed task list** addressing **priority activities** from the Action Plan. This task list also serves as a work plan for TWG 5 and is reviewed and updated in TWG meetings. TWG 5 used the **4th meeting in November** to conduct a **discuss the draft VEIS Circular** and provided valuable inputs for EREA/MOIT for the further implementation of the VEIS.

Currently GIZ on behalf of the **EU-Viet Nam Energy Facility (EVEF)** is supporting MOIT/EREA in the **development of the legal framework for the VEIS**, specifically in developing and drafting the **VEIS Circular**. The **Danish Energy Partnership Programme (DEPP)** provided further support and conducted **trainings** on energy demand and energy systems modelling. The Italian **AICS** together with the **Italian Statistics Office (ISTAT)** are supporting the **GSO** in improving capacities in energy statistics and in developing the Energy Balance Sheet for Viet Nam.

Regarding partner support and engagement in the TWG work process, TWG 5 has **worked on increasing participation** of further DP and other sector stakeholders at the working meetings.

A full **overview of development partner support projects** in the topic field of Energy Access can be found [here](#).

Challenges: Key task for 2019/2020 is the **finalization of the legal framework** for the VEIS and the **mobilization of the investment funds** for the establishment of the VEIC infrastructure. TWG 5 identified a number of related tasks that need further Development Partner support, such as the development of an energy data inventory and database as well as the preparation of the PM Decision and related supporting documents to establish the VEIS/VEIC.

TWG 5 recommendation to establish a **VEIS leader** and **inception team** that could start preparatory work on the VEIS already in 2019 parallel to the development of the legal framework needed to be revised. It was analyzed that there was no sufficient legal basis to allow for the establishment of an inter-institutional working group or implementation team. This task can only be realized after the VEIS Circular has been approved.

- *TWG 5 identified the challenge to mobilize further Development Partner support for the ongoing first phase of establishment of the VEIS and VEIC.*
- *Furthermore, since data and statistics is a cross-cutting topic, coordination with further state agencies, such as the GSO, and with other relevant TWGs such as TWG 2 on the Energy Efficiency Database should be a focus of the work in the upcoming period.*

PDP 8 development and the utilization of the Viet Nam Energy Outlook Report

- **Progress:** The **Energy Outlook Report 2019 (EOR19)** was successfully **launched on 04 November 2019**. Based on detailed modelling of the energy system, the EOR19 provides a scenario-based foundation for policy action by shedding light on the development of the energy system towards 2050. The report presents five scenarios exploring different least-cost development pathways of the Vietnamese energy system. The EOR19 shows that enhanced Energy Efficiency and the development of Renewable Energies at the highest level can deliver large and cost-effective CO₂ reductions, and reduce air pollution and dependency on fuel imports.

The EOR19 comes **timely** during the **preparation phase of the PDP 8**. PM Decision 1264/ QĐ-TTg *On the Approval of the Terms of Reference for the Development of the National Power Development Plan for the 2021-2030 Period with an Outlook to 2045* was issued on 01 October 2019. The preparation phase focuses on research and preparatory assessments of the demand and power supply side. Therefore, the EOR19 provides valuable inputs and scenarios.

TWG 5 and Partner Support: TWG 5 provided valuable inputs and comments during the EOR19 development phase. The VEPG Secretariat also supported this process with the **organisation of two focus meetings** with relevant VEPG partners and the Danish Energy Partnership Project (DEPP) and involved consultants and with this helped to collect more expert inputs for the EOR19 development.

Regarding partner support, the **DEPP** has jointly with MOIT developed strong capacity on energy scenario modelling within MOIT as well as developed solid data and an advanced modelling setup. These assets are already in use in the preparatory work of PDP 8 development as well as being further enhanced and developed.

On PDP 8 development the **World Bank** and **USAID/V-LEEP** are providing support to MOIT, specifically on the development of the PDP 8 methodology and the assessment of long-term power supply capacities. Furthermore, **JICA** is supporting EREA/MOIT on developing the LNG-based supply chains.

- **Challenges:** After the launch of the EOR19 the key task will be to **fully utilize** the knowledge, findings and recommendations as well as the expertise developed in the context of **the EOR 19 for the PDP 8**. In this sense, it can be a ‘test for power sector development’ that can support and enhance the PDP 8 development.

Therefore, the TWG Chair and Co-Chair and the Secretariat proposed to **include the EOR19** to the discussion on the topic of Strategic Sector Planning **at the High-Level Meeting 2019**.

For the **PDP 8**, the implementation phase has begun and until September 2020 the draft plan as well as the Strategic Environmental Assessment will be developed. TWG 5 can further be a platform for exchange and coordination on PDP 8 development. However, since PDP 8 is of cross-cutting relevance for different TWGs, such as TWG 2 on Energy Efficiency when looking at the power demand side and relevant data needs from energy users in industry or other sectors, **PDP 8** should also be **addressed in collaboration of different TWGs**.

The **VEPG Secretariat** is **offering further support** in facilitating the dialogue on PDP 8 and providing a platform for exchange, coordination and consultation.

- *TWG 5 identified the challenge to further support the PDP development process with knowledge and expertise from its members. However, since the PDP 8 is a cross-cutting topic with relevance for different TWGs, this process should involve inputs from further TWGs and expertise from all topic fields represented in VEPG.*
- *It is therefore recommended, that the VEPG Secretariat together with TWG 5 Chair and Co-Chair act as the focal point for the dialogue on PDP 8 within VEPG and e.g. propose a joint VEPG workshop or consultation meeting on the PDP 8 in 2020, once the first inputs are drafted and ready for presentation, that engages all TWGs.*

3. Outlook and Recommendations

It is recommended that the work of the TWG 5 in the next reporting period focuses on the following priorities:

- The main focus of TWG 5 in the upcoming period should be on **supporting the implementation of the VEIS framework** and preparation for **establishing the VEIC** infrastructure. Here, TWG 5 has identified further support needs and should also focus on the **mobilization of further Development Partner engagement** and actual support to work on the detailed tasks that were identified and compiled over the past working group meetings.
- Data and Statistics is a cross-cutting topic. Therefore, coordination with relevant state agencies and sector stakeholders, e.g. on the further VEIS development are is of great importance. The experience regarding the exchange with the GSO has shown that **TWG 5 can play a relevant role** in that respect and provide a platform for such exchange and coordination. This should be continued enhanced in the upcoming period also including the **exchange with other TWGs** with relevant linkages to data and statistics, e.g. with TWG 2 on the Energy Efficiency Database.
- Regarding **PDP 8**, **VEPG** can provide a **platform for dialogue and consultation** in the coming months when the PDP 8 is being developed. However, this topic goes beyond the scope of TWG 5 and should also be addressed in a **collaborative approach involving all TWGs**. This also corresponds to the guidance from the VEPG Steering Committee that called on all TWGs to intensify work and support for PDP 8 development in its last meetings. The VEPG Secretariat together with the TWG 5 Chair and Co-Chair could facilitate this platform-wide dialogue, e.g. by organizing a **joint VEPG workshop or consultation meeting on the PDP 8 in 2020**, once the first inputs are drafted and ready for presentation.

OUTLOOK AND SUMMARY OF RECOMMENDATIONS

In the past year since the High-Level Meeting 2018, the **VEPG has provided a meaningful platform** for knowledge sharing, exchange of ideas and experience, alignment of policy objectives and coordination of activities and efforts between the Government of Viet Nam and its Development Partners, as well as other relevant stakeholders in the energy sector.

Sector Support and Coordination: The **VEPG**, through its Technical Working Groups (TWGs) and the Secretariat, **provided support to the energy sector** by actively contributing to various sector events, consultation processes and supported bilateral projects and partner activities. This support allowed Development Partners and sector stakeholders to gain better understanding of sector processes, Government strategies and ongoing bilateral cooperation activities and therefore contributed to more coherence in work, less overlap and improved planning of cooperation projects. Government agencies, in particular the involved MOIT departments, used the opportunity to exchange with Development Partners and a wide range of further sector stakeholders in a structured and transparent dialogue. A number of **policy consultations** were organized by the VEPG or with active contribution of the VEPG, such as the consultation on the **draft Solar FIT 2** and the **Rooftop Solar Programme** in TWG 1 or the **VNEEP 3** and preparation of **NEEAP** in TWG 2.

Over the past year, **participation and engagement of sector stakeholders increased** with the growing **perception of the VEPG** as the **central policy dialogue platform** in the energy sector. Development partners increasingly utilize the expertise and sector overview of the VEPG Secretariat for project scoping and appraisal missions to effectively target and design future projects or for mid-term reviews of ongoing project to recalibrate activities within running projects.

Private sector investors, project developers and financing institutions, as well as business associations, **increasingly engage in the VEPG dialogue** and use the platform for coordination and exchange with the public sector and development cooperation institutions. **Further development partners**, such as JICA and KOICA have **joined the dialogue** and actively contribute to TWG work. **Civil Society Organisations participate** in the dialogue **on a regular basis**.

Policy support and implementation of VEPG Policy Recommendations: Most importantly, the **VEPG** through its TWGs **actively supported key policy processes** in the five topic fields of renewable energy, energy efficiency, energy sector reform, energy access and energy data and statistics. This included among others, the development of the draft Solar FIT 2 and Rooftop Solar Programme, the development of the National Energy Efficiency Action Plan, the implementation of the Viet Nam Wholesale Energy Market, as well as the Direct PPA pilot mechanism, the support of the implementation of the Target Programme on Rural Electrification, the development of the legal framework for the Viet Nam Energy Information System and the preparation of the development of the Power Development Plan 8.

The main work of the TWGs in the reporting period focussed on **supporting the implementation of the VEPG Policy Recommendations** that were endorsed by the 2nd HLM

in November 2018. Here, the TWGs achieved substantial progress, as summarized in the respective TWG chapters, but also identified remaining gaps and challenges:

TWG 1 – RENEWABLE ENERGY

Key challenge in the upcoming period is the **further development of the legal framework** for renewable energy investments (procurement framework) to effectively **incentivize large amounts of private sector investments** for RE power capacities. This is necessary to ensure power supply security at a strongly increasing electricity demand and to prevent shortages in power capacities over the next years.

- **TWG 1 will support this process** with further consultation efforts and inputs **along the guiding principles** of harmonization and streamlining of the regulatory framework, non-discrimination of RE technologies against other technologies, long-term compatibility with the Viet Nam Wholesale Electricity Market, compatibility with the specific Vietnamese market and public-sector environment, long-term signalling for investors and specificity of policy instruments for different RE projects or market segments – as stipulated in the TWG 1 Policy Recommendations.
- In this respect, TWG 1 will focus on further renewable power sources such as **wind offshore** and **bioenergy** as well as further innovative RE applications such as **integrated approaches of energy and agricultural production**.

Unlocking all technical and regulatory potentials for the **integration of** largely increasing amounts of **fluctuating renewable energies to the grid and power system** is the second key challenge identified by TWG 1.

- **TWG 1** can act as the **focal point** for the dialogue on **Grid Integration** of RE within VEPG but will **include other relevant TWGs** and work in close cooperation with other TWG Chairs and Co-Chairs **and relevant MOIT entities**, such as the Planning and Grid divisions, as well as the power systems department under ERAV.

TWG 2 – ENERGY EFFICIENCY

The key challenge in the upcoming period will be the **finalization and subsequent implementation of a comprehensive and effective National Energy Efficiency Action Plan (NEEAP)**, including an effective monitoring, steering and enforcement mechanism.

In the context of NEEAP implementation, a further **key challenge** is to **mobilize substantial funding** from domestic and international sources, including the establishment of an Energy Efficiency Fund. In addition, substantial funding for energy efficiency measures in industry, as well as the building and transport sectors, need to come from private investments. To **mobilize these private sector investments**, e.g. coming from industrial and commercial enterprises, ESCO providers or private financing institutions, **capacities need to be developed, market barriers removed** and **awareness raising** measures implemented.

- With these challenges ahead, the **NEEAP will become the guiding work plan for TWG 2** in 2020 and beyond. TWG 2 with support from the VEPG Secretariat will further prioritize topic areas or specific tasks from the NEEAP for the upcoming TWG 2 meetings in 2020.
- MOIT, Development Partners and further sector stakeholders should utilize the VEPG and more specifically the **TWG 2 platform to coordinate support efforts, to avoid overlapping and inefficient allocation** of ODA funding and technical assistance and to leverage **potentials for synergies and collaborative action**.

TWG 3 – ENERGY SECTOR REFORM.

Key challenge will be to further the process of **implementing the Wholesale Energy Market (VWEM) and the Retail Electricity Market (VREM)**. This new **regulatory framework** for the power market will be the **foundation** for the enormous amount of private investments that are needed to provide the necessary power capacities for the growing electricity demand and to drive the transition process to a sustainable energy sector in Viet Nam.

- **TWG 3** will further support ERAV/MOIT. However, this requires the **mobilization of further Development Partner support**. The **current support framework** seems **not sufficient** for this challenging task. The **VEPG Secretariat** will serve as a **facilitator and catalyst** for this task and will cooperate closely with the Chair and Co-Chair on mobilizing further DPs.
- **ERAV/MOIT** has developed a **Technical Assistance (TA) needs** list that needs further prioritization in the TWG work process and shall be **discussed with Development Partners** in TWG 3 and beyond.
- As requested by the VEPG Steering Committee, **TWG 3 has reviewed the scope-of work** of the group and collaboratively recalibrated its work focus and developed a revised topic list within the framework of *'Regulatory Challenges for Developing a Competitive Power Market'*.
- TWG 3 will **further support** the process of **implementing the DPPA pilot scheme** and provide a platform for sector stakeholder consultation.
- TWG 3 will also support the work on the **cross-cutting topic of grid integration of renewable energies and integrated planning** in cooperation with TWGs 1 and 5.

TWG 4 – ENERGY ACCESS

Key challenge for the upcoming period in the topic field is the **implementation of the Target Programme on Rural Electrification (Target Programme)**. In this context, the main task is to identify solutions to **fill the substantial financing gap** of more than **80% of total financing needed to meet the target of 100% electrification** in Viet Nam.

This task includes, the identification and discussion of **legal adjustments to the ODA financing framework to mobilize further international support** and to **allow new financing solutions**, such as blending of grants and ODA loans.

In this context, **TWG 4** has identified the **need to give Energy Access more priority** in the discussion of allocating state budget and public funding.

- TWG 4 with support of the VEPG Secretariat will continue to work on the ‘financing challenge’, which requires further and intensified **coordination with other relevant line ministries**, MPI in particular, who could be more intensely included in the work of TWG 4.
- Regarding the **further development of off-grid solutions** as alternatives to grid expansion to rural areas or islands, TWG has identified the ‘**sustainability challenge**’ of off-grid projects as a key priority for the further work of the group. This includes the continued study of domestic and international best-practice.

In the **topic field of bioenergy for rural areas**, TWG 4 identified **the challenge of cross-sectoral and cross-ministerial cooperation** as a key priority for the further work of the group in this field.

- In this context, TWG 4 will **cooperate and coordinate with TWG 1** regarding the considered implementation of a **biogas FIT** with a focus on the needs and requirements of small-scale rural biogas applications.
- Furthermore, TWG 4 will strive to engage in an **exchange with the Ministry of Agriculture and Rural Development (MARD)** and invite relevant representatives to the TWG 4 work process.

TWG 5 – ENERGY DATA AND STATISTICS

Key challenge is the implementation of the **Viet Nam Energy Information System (VEIS)** and related **establishment of the VEIC infrastructure**. The VEIS will provide a data and information foundation for many processes in the energy sector as well as for further policy processes such as the monitoring of Viet Nam’s NDC commitments and it will provide an important information source for private sector stakeholders such as investors or project developers in the energy sector.

- In this context, TWG 5 has identified further support needs and will focus on the **mobilization of further Development Partner engagement** and actual support to work on a detailed task list that was identified and compiled in the work process.
- Furthermore, TWG 5 will **cooperate closely** further **state agencies** such as the GSO and with **other relevant TWGs** such as TWG 2 on the Energy Efficiency Database.

Furthermore, **key task** in the upcoming period is to **further support the PDP development process** and organize cooperation among Development Partners and sector stakeholders.

- **TWG 5** can **play a leading role** in that respect and provide a platform for such exchange and coordination. However, this needs to include the **exchange with and inputs from other TWGs** with relevant linkages to data and statistics, e.g. with TWG 2 on the Energy Efficiency Database or TWG 1 with the link to the incentive framework for renewable energy investments and the focus on grid integration.

- **TWG 5** can act as **focal point for the dialogue on PDP 8** within VEPG and e.g. propose a joint VEPG workshop or consultation meeting on the PDP 8 in 2020.

CROSS-CUTTING CHALLENGES

The discussion of achievements and challenges of all five TWGs has brought up three cross-cutting challenges that need attention in the upcoming period:

Sector planning challenge: Regarding **PDP 8**, **VEPG** can provide a **platform for dialogue and consultation** in the coming months during which the PDP 8 is being developed. TWG 5 can be the focal point within the VEPG structure but the topic should be addressed in a **collaborative approach involving all TWGs**. This also corresponds to the guidance from the VEPG Steering Committee in its last meeting that called on all TWGs to intensify work and support for PDP 8 development. The VEPG Secretariat together with the TWG 5 Chair and Co-Chair could facilitate this platform-wide dialogue, e.g. by organizing a **joint VEPG workshop or consultation meeting on the PDP 8 in 2020**. The VEPG will address the topic at the **High-level Meeting 2019** as priority topic. Furthermore, the VEPG can contribute in supporting the coordination of sub-sectoral topics that are related to PDP 8, such as the activities on Rooftop Solar (RTS) development or on Off-Shore Wind energy.

Financing challenge: The **mobilization of large amounts of public funding** from state budget and international sources is a cross-cutting challenge that applies to necessary investments in power capacities, power grid infrastructure, energy efficiency measures and for energy access measures. Here, the issue of the public debt-ceiling and current needs to revise the legal framework for ODA funding needs to be addressed with high priority in the upcoming period. TWG 4 has specifically identified this challenge for the implementation of the Target Programme for Rural Electrification and proposed to address and discussed it at the High-level Meeting 2019. In this context, it will be important to include relevant other line ministries to the dialogue such as the Ministry of Planning and Investment (MPI).

Grid integration: Within the VEPG operational structure, as within the MOIT structure, the responsibilities for the topic of **grid integration** are shared **across different TWGs and MOIT departments**. Therefore, the topic should be **approached as a cross-cutting topic** between TWGs 1, 3 and 5, in particular. **TWG 1** has already taken this up in its work in the reporting period and discussing related issues in coordination with other TWGs and involving different MOIT divisions. The further focus on the topic should also include the potentials of regional power trade and interconnections to neighboring countries. The detailed division of tasks needs to be further developed in the upcoming period.

ANNEX I – OVERVIEW OF ACHIEVEMENT OF VEPG POLICY RECOMMENDATIONS

TWG 1 – Renewable Energy

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

Topic 3	<p>→Develop future wind and solar support mechanisms (including auctioning) Ỗ Develop a future procurement framework for renewable energies that limits barriers for project development and gives long-term investment security.</p>				
	<p>Develop the future procurement framework for renewable energies along the guiding principles of harmonization and streamlining of the regulatory framework, non-discrimination of RE technologies against other technologies, long-term compatibility with the Viet Nam Wholesale Electricity Market, compatibility with the specific Vietnamese market and public-sector environment, long-term signaling for investors and specificity of policy instruments for different RE projects or market segments.</p>	<p>Short-Term: (end of 2019)</p>	<p>Revision of solar support mechanism (Dec.11/Cir.16)</p>	<p>Ongoing</p>	<p>PM Dec. 39/2018 on revised Wind-FIT issued (10.09.2019). MOIT draft Solar FIT 2 (revision of PM Dec. 11/2011) published for consultation (21.2.19)</p>
		<p>Medium-Term: (end of 2020)</p>	<p>Development of auctioning pilot for solar/wind</p>	<p>Ongoing</p>	<p>Development of auctioning pilot programme</p>
		<p>Long-Term (post-2020)</p>	<p>Further development of other incentive mechanisms for RE (VWEM, RPS, DPPA, etc.)</p>	<p>Ongoing</p>	<p>Development of pilot DPPA (ERAV/USAID) Development of VWEM (ERAV/WB) Development of RPS scheme (EREA/USAID)</p>
Topic 4	<p>→Integration of fluctuating renewable energy in the national grid Ỗ Implement measures that assure the necessary absorption capacity of the national power grid (in time and amount) to allow large-scale wind and solar generation development.</p>				
	<p>Develop and implement a transparent and comprehensive RE project approval process.</p>	<p>Short-Term (end of 2019)</p>	<p>Revise process of including RE projects to Power Plan (PDP)</p>	<p>Ongoing</p>	<p>Completed for wind: new procedures for Wind power project development (MOIT Circ. 2/2019, 28.02.2019). Ongoing for solar: New MOIT Circ. for solar project development (replacing Circ. 16/2017) will include guidelines from new MPI Planning Law (upcoming MPI Circular/Decree on implementation of new Planning Law)</p>
	<p>Invest in grid expansion considering potential future RE development</p>	<p>Medium-Term (end of 2020)</p>	<p>Align RE capacity planning and grid planning in PDP VIII</p>	<p>Ongoing</p>	<p>Ongoing PDP 8 development Ongoing MOIT/EVN grid expansion projects</p>

	Designate zones for RE (e.g. in line with the auction strategy)	Medium-Term (end of 2020)	Zonal approaches in FIT mechanisms or designated zones for RE auctioning	Ongoing	For Solar: Zonal FIT in draft Solar FIT 2 (draft PM Dec. replacing Dec. 11/2017)
	Increase the frequency of national PDP updates and align grid and RE capacity planning.	Medium-Term (end of 2020)	Develop new PDP (in line with new Planning Law)	Ongoing	Implementation of new MPI Planning Law: Upcoming MPI Circular on implementation of new Planning Law
	Review the grid codes for utility-scale RE and rooftop solar projects.	Short-Term (end of 2019)	Review grid codes for utility-scale RE and rooftop solar	Ongoing	MOIT/ERAV Circular 25/2016/TT-BCT (Grid Code for transmission system) MOIT/ERAV Circular 39/2015/TT-BCT (Grid Code for distribution system) revised and issued.

TWG 2 – Energy Efficiency

Policy Recommendations TWG 2 Energy Efficiency		Timeframe	Instruments & Indicators	Status	Ongoing activity
Topic 1	→Policy framework for energy efficiency Enhance and strengthen the legal framework for Energy Efficiency in general and for ESCO models in particular.				
	Establish Energy Efficiency (EE) with VNEEP 3 as a priority topic and strengthen the respective legal framework including incentive and sanctioning mechanisms across all sectors, social activities in a tailor-made approach for the specific target groups.	Short-Term (end of 2019)	Implementation of VNEEP 3 and review of relevant policy instruments, sub-law decrees etc.	Partially Completed	VNEEP3 approved and launched with PM Decision 280/2018 (13.3.19) Ongoing: Development of EE Action Plan (NEEAP) and consultation process with provinces, municipalities and further public agencies; Decree 21 is under revision
	Introduce sector specific and (gradually) mandatory EE targets for key energy consuming sectors to contribute to greenhouse gas emission reductions as indicated in NDCs and SDGs.	Medium-Term (end of 2020)	Include specific and mandatory EE targets for key energy users/ sectors.	Partially Completed	VNEEP3 approved by PM (13.3.19) Ongoing: Development of EE Action Plan (NEEAP) ; Provincial EE Action Plans under development
		Long-Term (post-2020)	Include specific and owned EE targets for Ministries, sectors, provinces and cities		
Topic 2	→Institutional framework for energy efficiency and enforcement Enhance and strengthen the institutional framework for Energy Efficiency for improved implementation and enforcement.				
	Implement VNEEP with a robust monitoring and reporting system with greater transparency that helps to track the progress, facilitate prioritization, and provide incentives for taking action by concerned stakeholders.	Short-Term (end of 2019)	Implement VNEEP 3 and review relevant policy instruments, sub-law decrees etc.	Partially Completed	VNEEP3 approved by PM (13.3.19) Ongoing: Development of Action Plan (NEEAP)
	Establish coordination mechanisms such as a Government Steering Board for EE on Deputy Prime Minister level to facilitate inter-ministerial decision making and strengthen implementation, enforcement and monitoring.	Short-Term (end of 2019)	Establish a Government Steering Board for EE on Dep. PM level	Partially Completed	VNEEP3 approved by PM (13.3.19) Ongoing: Development of Action Plan (NEEAP)

Topic 3 →Financing energy efficiency Develop a supportive financing and investment to mobilize domestic and international resources and ensure long-term stable funding and access to financing for energy efficiency.					
	Establish innovative and inclusive financing mechanisms including a dedicated Energy Efficiency Fund 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.	Short-Term (end of 2019)	Develop dedicated Energy Efficiency Fund	Ongoing	VNEEP3 approved by PM (13.3.19) Ongoing: Development of Action Plan (NEEAP)
	Create an investment environment that attracts and leverages private and public-sector resources for EE measures (in particular, public funding of pilot initiatives and new efficiency technologies, partnerships with international and national financial institutions and the private sector, implementation of designed financing mechanisms)	Medium-Term (end of 2020)	Review existing financing mechanisms and financing framework and develop new solutions/partnerships.	Ongoing	VNEEP3 approved by PM (13.3.19) Ongoing: Development of Action Plan (NEEAP)
Topic 4 →Technical capacity and awareness raising Raise awareness and build technical capacities of key public and private sector target groups as well as end-users to increase demand for EE solutions and activities.					
	Raise awareness and build capacities of key target groups (including energy managers, private sector and ESCOs).	Medium-Term (end of 2020)	Develop and implement capacity measures for EE stakeholders/target groups	Ongoing	Ongoing: Development of Action Plan (NEEAP) Development of capacity building measures supported by various DPs
	Share updates on EE best practices and gains and advanced EE technologies with justified cost savings and other co-benefits among key target groups.	Medium-Term (end of 2020)	Develop and implement a public database on Energy Efficiency.	Ongoing	Ongoing: Development of Action Plan (NEEAP) supported by EU/GIZ and Denmark
	Build capacities of ESCOs and end-users specifically in developing and operating EPC models .	Medium-Term (end of 2020)	Develop further instruments and measures for specific capacity building and awareness raising for ESCO models.	Ongoing	Ongoing: Development of Action Plan (NEEAP) supported by various DPs (among others World Bank, USAID, EU/GIZ)
	Develop and implement a public education campaign to raise awareness and improve ability of individuals to reduce energy waste and to create a clean environment.	Long-Term (end of 2021)	Develop a public education campaign and other awareness raising measures	Ongoing	Ongoing: Development of Action Plan (NEEAP)

TWG 3 – Energy Sector Reform

Policy Recommendations TWG 3 - Energy Sector Reform		Timeframe	Instruments & Indicators	Status	Ongoing activity
Topic 1	→ Implementation of the Viet Nam Wholesale Energy Market (VWEM) Develop and implement a suitable energy market design model and a clear and transparent legal and institutional framework that integrates Renewable Energies, enhances ERAV's market monitoring capacities, as well as SMO's market and system operation capacities and creates confidence for investors and market stakeholders				
	Improve the detailed VWEM design in order to meet the target of a fully operational VWEM in 2021 and subsequent implementation of the Viet Nam Competitive Retail Market in particular with a cross-subsidy mechanism among Power Corporations through a balancing account (or equivalent mechanism)	Short-Term (end of 2019): VWEM design Medium-Term (end of 2020): Cross-subsidy mechanism	Further develop design of VWEM Implement cross-subsidy mechanism for PCs, pricing mechanism for public utility products, mechanism on power system ancillary service costs.	Partially Completed	Start of VWEM full-operation beginning of 2019 MOIT Dec. 45/2018 issued 15.11.2018 regulating details of VWEM operation Cross-subsidy mechanism under development
	Develop a pricing mechanism for public-utility products and services to supply power to deep-lying, remote, border and island areas and a mechanism on managing the power system ancillary service (A/S) costs of SMO in both Wholesale Market and Competitive Electricity Retail Market.	Long-Term (post-2020)	Fully implement VWEM and VCRM.	Ongoing	Start of VWEM full-operation beginning of 2019
Topic 2	→ Development of a Direct Power Purchase Agreement (DPPA) mechanism Develop a DPPA mechanism as an option for Renewable Energy investors.				
	Develop DPPA within a robust legal market framework and in compliance with the VWEM , gradually improving the existing legal framework based on outcomes of the pilot mechanism.	Short-Term (end of 2019):	Prepare and implement pilot DPPA model.	Ongoing	Consultation on DPPA design on 12 June 2019 Internal government review and approval process ongoing

	<p>In particular, this could involve a Prime Minister's decision on implementing DPPA as a separate mechanism to the FIT including electricity system infrastructure fees, specific regulations on licensing, a VAT mechanism and further guiding circular provisions on grid connection.</p>	<p>Medium-Term (end of 2020):</p>	<p>Analyze pilot DPPA model for further implementation of VWEM and VCRM.</p>	<p>Ongoing</p>	<p>Consultation on DPPA design on 12 June 2019 Internal government review and approval process ongoing</p>
	<p>Furthermore, and more specifically, develop the legal basis for a Distribution Charge as a prerequisite to implement the DPPA and the competitive retail market in 2021.</p>	<p>Medium-Term (end of 2020):</p>	<p>Develop legal base for a Distribution Charge</p>	<p>Ongoing</p>	<p>Consultation on DPPA design on 12 June 2019 Internal government review and approval process ongoing</p>

TWG 4 – Energy Access

Policy Recommendations TWG 4 Energy Access		Timeframe	Instruments & Indicators	Status	Ongoing activities
Topic 1	<p>→ Financing for increased energy access Increase the state budget allocation for the Rural Electrification Programme and mobilize further domestic and international funding sources.</p>				
	Increase state budget for access to energy measures	Short-Term (end of 2019)	Increase state budget for access to energy	Partially Completed	Partly completed: PM Decision 1740/2018 was issued in Dec. 2018 approving budget for EA measures. MPI Decision 1066/QĐ-BKHDT provided medium-investment plan. However, further budget for the Target Programme needs to be mobilized.
	Encourage and facilitate the development and implementation of new financial mechanisms such as blending ODA grants with loans or results-based financing (RBF) .	Medium-Term (end of 2020)	Develop and implement new financial and incentive mechanisms	Ongoing	4E/EVEF Study on policy and financing support for off-grid systems (2020)
	Develop an incentive mechanism to encourage private investments to unlock additional non-state budget and non-ODA funding potentials in remote areas.	Medium-Term (end of 2020)	Develop and implement new financial and incentive mechanisms	Ongoing	4E/EVEF Study on policy and financing support for off-grid systems (2020)
	Develop a policy to promote independent power supply systems for off-grid areas.	Medium-Term (end of 2020)	Off-grid support programme	Ongoing	4E/EVEF Study on policy and financing support for off-grid systems (2020)
	Consider a Feed-in-Tariff (FIT) for biogas , which could incentivize farmers or other private sector stakeholders to invest.	Medium-Term (end of 2020)	FIT for biogas	Ongoing	Not yet targeted (only solid biomass) Potentially W2E and biogas FIT in 2020 (TWG 1 involved)

Topic 2 → Mini-grids and off-grid solutions in remote areas Implement measures that support the development, implementation/ investment in and efficient operation of high-performance mini-grid systems in Viet Nam's mountainous and island areas under the Rural Electrification Programme (PM Decision 2081 and PM Decision 1740).					
	Draw lessons from international best practice and as well as from pilot projects in Viet Nam for further development of mini-grids in the country.	Short-Term (end of 2019)	Analyze domestic and international best practice and pilot projects, prioritize off-grid projects in 2081 Programme	Ongoing	4E/EVEF Study on policy and financing support for off-grid systems (2020)
	Prioritize off-grid projects identified in the targeted Programme (Dec. 2081), conduct feasibility studies within a site-specific approach and allocate State budget for implementation.	Medium-Term (end of 2020)	Conduct FS and allocate budget for implementation	Partially Completed	Budget for Cao Bang and Bach Long Vy already approved Status of 26 prioritized off-grid systems (2081): ongoing
	Develop capacities of local workers and other stakeholders by providing trainings on installation, operation and maintenance of renewable energy systems.	Medium-Term (end of 2020)	Develop and implement trainings / capacity building measures	Ongoing	Planned measures for 2020 (study tour, workshop) within EU/GIZ support framework.
Topic 3 → Biomass and biogas (for cooking) Support and implement measures to increase access of households to biogas digesters and clean and efficient cookstoves.					
	Promote a nationwide biogas sector approach where financial resources would be merged, and a common approach, goal and strategy would be ensured.	Short-Term (end of 2020)	Develop a National Biogas Sector Strategy	Ongoing	To be discussed in TWG 1 as well (biogas FIT), to be discussed with MARD
	Establish a harmonization and coordination mechanism to oversee all biogas initiatives to reach a comprehensive vision of biogas development in Viet Nam and assess remaining market opportunities.	Medium-Term (end of 2020)	Establish institutional framework and coordination mechanism for biogas development.	Ongoing	To be discussed in TWG 1 as well (biogas FIT), to be discussed with MARD
	Facilitate and promote access to the Green Climate Fund (GCF) and other public climate funds to ignite markets and de-risk investments.	Medium-Term (end of 2020)	Facilitate access to GCF and other financing facilities.	Ongoing	To be discussed in TWG 1 as well (biogas FIT), to be discussed with MARD

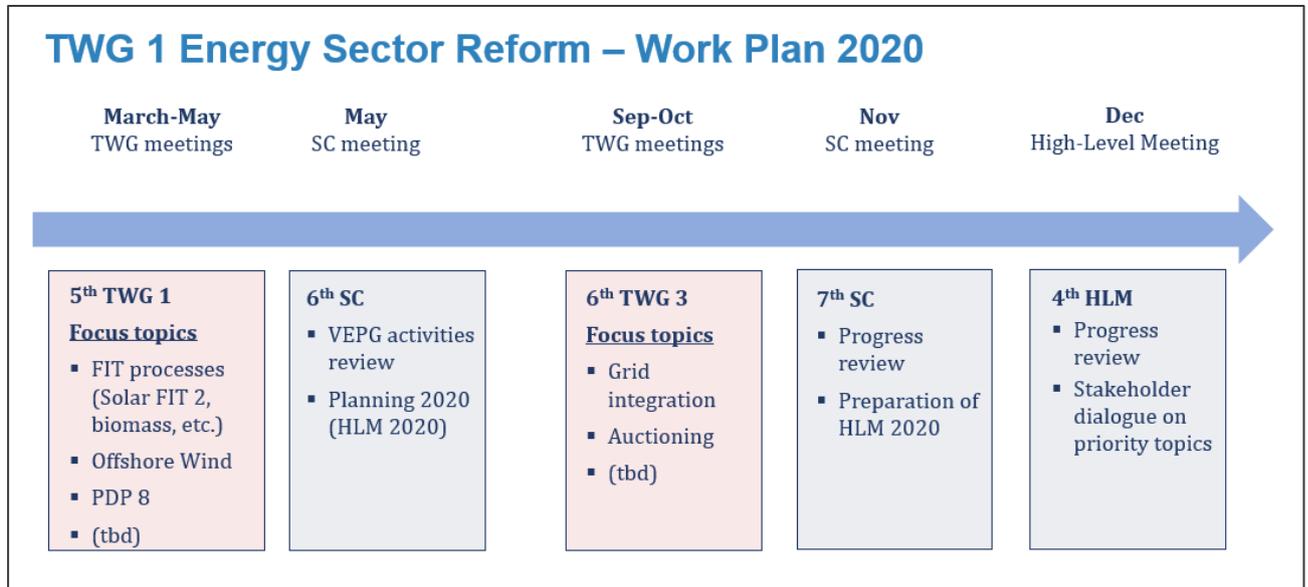
TWG 5 – Energy Data and Statistics

	Policy Recommendations TWG 5 Data & Statistics	Timeframe	Instruments & 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 (draft to be submitted to further government agencies for consultation in October 2019), Technical Working Group for development of Circular was established early September 2019 PM Decision on VEIS to be developed until 2021
	Parallel preparatory work should be conducted on the terms of reference for the coordination platforms, a multi-annual VEIC work plan and the drafting of data sharing agreements.	Short-Term (end of 2019):	Develop further preparatory work (ToR for coordination platforms, workplan etc.)	Ongoing	Will be partially covered by the MOIT Circular (under development), other activities under this target will be started in 2020
Topic 2	→Establish the institutional framework for Vietnam Energy Information System (VEIC) Establish a strong, coherent and clear legal framework for the collection, processing and dissemination of energy data and statistics in Viet Nam				
	Allocate an appropriate State budget for the institutional structure, including the Viet Nam Energy Information Center (VEIC).	Medium-Term (end of 2020):	Allocate State budget for institutional structure of VEIS (incl. VEIC). (to be specified, which budget period etc.)	Ongoing	Initial budget (non-state budget) needs to be defined by end of 2020 (to be submitted to MPI). Proposal for State Budget (2021-2025) by 2021. Pre-FS for VEIS investment is under development

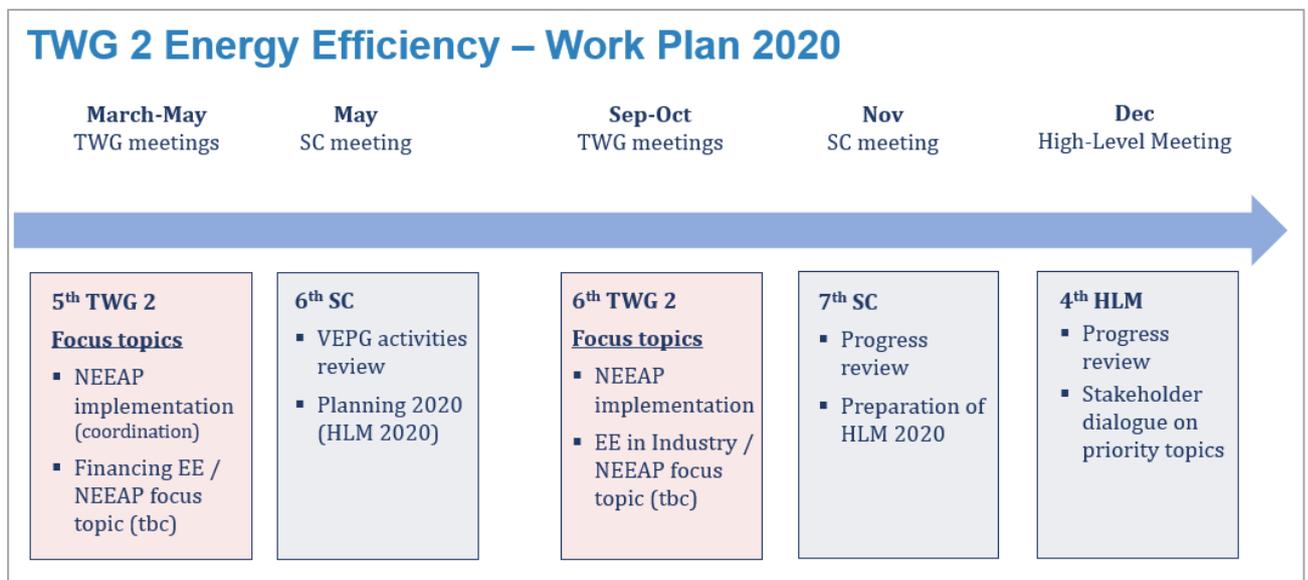
	Install a “VEIS leader” and an “inception team” composed of EREA, EESD, GSO representatives (among others) to initiate activities, supervise the preparatory work and coordinate with all stakeholders.	Short-Term (end of 2019):	Install VEIS leader and inception team.	Revised	After issuing of MOIT Circular the MOIT Minister will decide in 2020 on overall VEIS Leader, VEIS working group installation and the establishment of the VEIC (staff, office equipment etc.). In compliance with legal regulations, this cannot be done before the MOIT Decision.
	Install an inter-agency VEIS Steering Committee to facilitate coordinated decision making, an Energy Statistics Working Group (ESWG) for inter-ministerial technical discussions and coordination and finally, the Vietnam Energy Information Center (VEIC) to operate the VEIS and the Energy Data Management System (EDMS) on a day to day basis.	Medium-Term (end of 2020):	Install VEIS Steering Committee, ESWG and VEIC.	Ongoing	Inter-ministerial Steering Committee and further working groups can be installed after issuing of MOIT Circular and decision by MOIT Minister.
Topic 3	→Viet Nam Energy Outlook Report (EOR 2019) Improve and strengthen the functions of the EOR 2019 for improving Vietnam’s expert skills on data & statistics as well as for developing the Power Development Plan VIII				
	Utilize the knowledge, findings and recommendations as well as the expertise developed in Vietnam under the EOR 2019 for the PDP VIII . The timeline of the EOR 2019 allows it to be a “testing for power sector development” that can support and enhance the development of the PDP VIII.	Medium-Term (end of 2020):	Utilize EOR 2019 for the development of PDP VIII.	Ongoing	EOR 2019 was launched on 4 November. During the development of the EOR 2019 specific recommendations were made on PDP 8 development, design and methodology. In the preparatory work of the PDP 8, the EOR 2019 and its analytical setup has already benefitted the PDP 8 developments.

ANNEX II – WORK PLANS OF THE TECHNICAL WORKING GROUPS FOR 2020

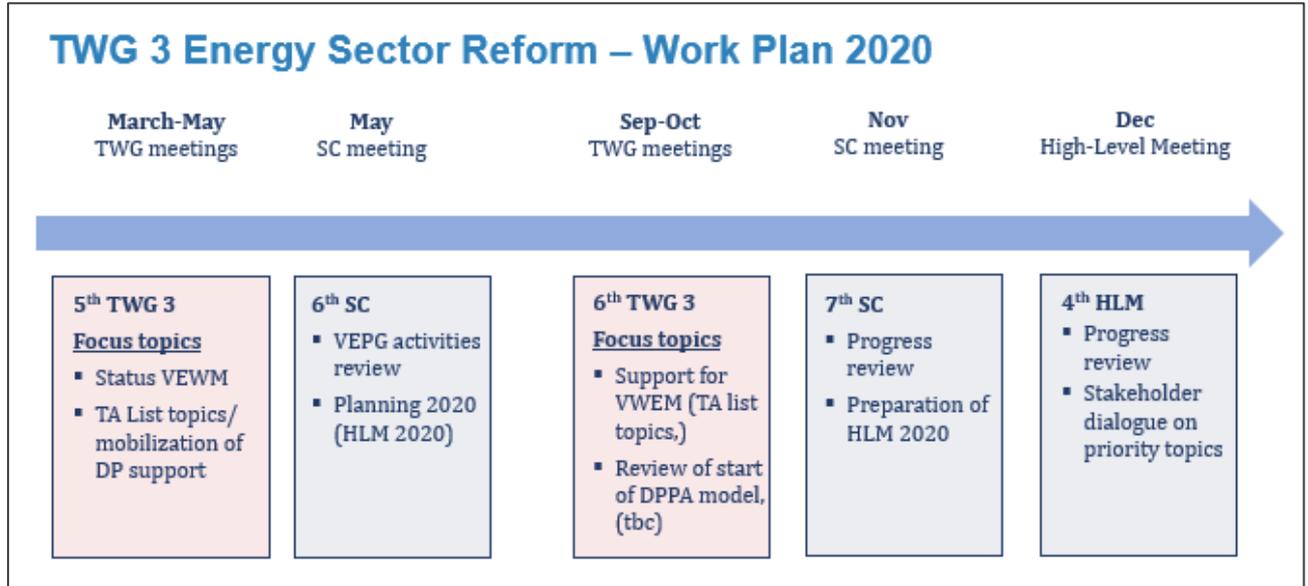
TWG 1 – Renewable Energy



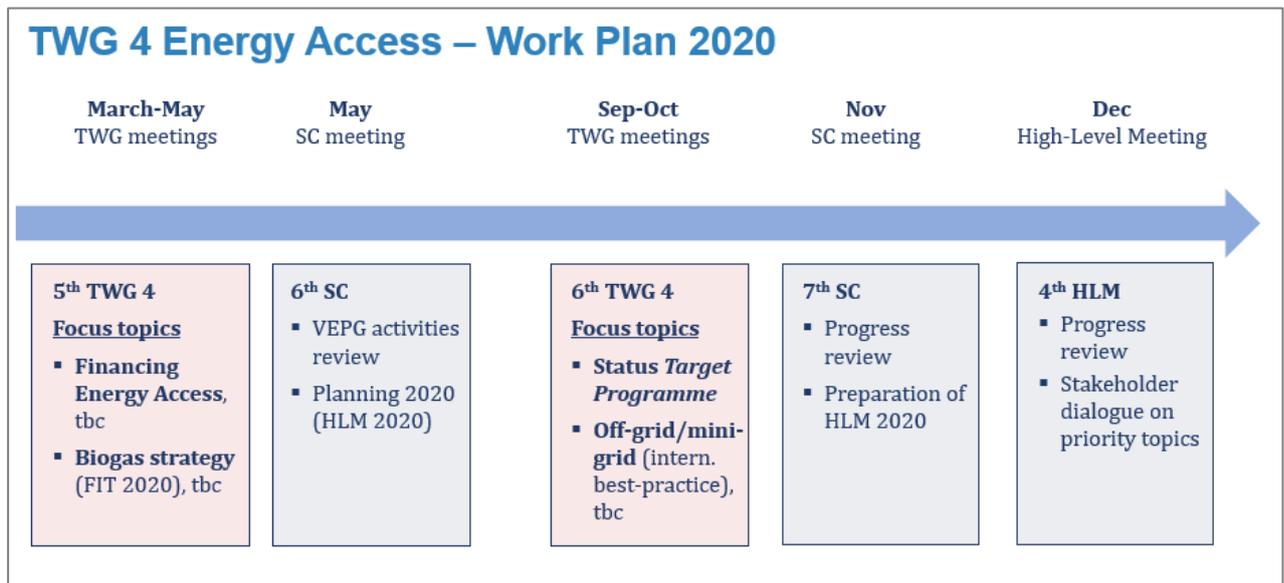
TWG 2 – Energy Efficiency



TWG 3 – Energy Sector Reform



TWG 4 – Energy Access



TWG 5 – Energy Data and Statistics

