

Viet Nam Energy Partnership Group

TECHNICAL WORKING GROUP 1: RENEWABLE ENERGY

REPORT OF THE 3RD MEETING

Date: 15 March 2019
Location: MOIT meeting room 101, 25 Ngo Quyen, Hanoi
Time: 9:00 – 12:00

Key agenda points:

1. Follow-up on the 2018 High-Level Meeting of the VEPG
2. Update of all TWG members regarding current activities of MOIT and VEPG partners
3. Consultation on the draft PM Decision on the new Solar FiT 2
4. MoIT Solar Rooftop Program

Chair and Co-Chair:

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

Agreed Conclusions and Actions: (See next page)

Agenda: See Annex 1

Participants: See Annex 2

Minutes: See Annex 3

Inputs: See Annex 4 -

- 4.1 Matrix for Policy Recommendations Implementation Monitoring
- 4.2 Summary of the Draft Solar FIT 2 for TWG members
- 4.3 Consultation documents on Draft Decision on Solar FiT
- 4.4 Presentations

AGREED CONCLUSIONS AND ACTIONS:

Conclusion / Decision	Action
<ul style="list-style-type: none"> The Chairs thanked participants for their active and constructive participation and comments. 	
<ul style="list-style-type: none"> The Secretariat gave an update on the HLM 2018 and presented a monitoring tool that allows the Chair and Co-Chair and the Secretariat to monitor progress on implementing the VEPG (TWG 1) Policy Recommendations and report to the VEPG Steering Committee and HLM. 	Secretariat, Chair/Co-Chair
<ul style="list-style-type: none"> The TWG members provided inputs and comments on the new draft PM Decision on the Solar FIT 2 replacing Decision 11/2017QĐ-TTg. The Chair took note of all comments from TWG members and EREA/MOIT will consider to take them into account in the further revision of the draft Decision. The Secretariat will compile all comments in a document and submit it to the Chair/EREA as an input to the consultation process on the new Solar FIT 2. The Secretariat will share this consolidated document with stakeholder comments with TWG members. Additional comments on the draft Decision can be submitted via the MOIT Website until April 15 or be sent to the VEPG Secretariat. <u>Note from the Secretariat:</u> <i>Please find the Consultation Document consolidating all comments from TWG members on the Draft Decision on Solar FIT 2 in Annex 4.1.</i> 	Chair/EREA Secretariat TWG members
<ul style="list-style-type: none"> <u>The Chair and Co-Chair</u> called for the mobilization of resources and technical support from Development Partners and other sector stakeholders to develop and implement a Solar Rooftop Support Programme. TWG 1 members discussed and reflected on USAID's overview presentation on the Solar Rooftop Programme with the goal of having 100,000 rooftop PV systems. The Concept Note will be disseminated to the TWG members for comments later and MOIT would like to invite all stakeholders to participate in the further development of the Programme in the next stage. 	TWG members Secretariat
<ul style="list-style-type: none"> The Chair and all TWG members expressed their sincere gratitude for Mr. Martin Hoppe's commitment and continuous support for the work of TWG 1 and VEPG in general in his role as a Co-Chair over the last 1 ½ years. Mr. Hoppe will end his posting in Viet Nam in June and return to Germany. The VEPG Steering Committee will discuss the succession of the Co-Chair role during its next meeting tentatively in May, 2019. In case VEPG member institutions are interested in co-chairing a TWG they are invited to contact the Secretariat. 	Chair/TWG members Steering Committee

ANNEX 1 - AGENDA

8.30-9.00	Registration
9.00-9.10	Opening, Introductions, Overview of Agenda <ul style="list-style-type: none"> • Mr. Nguyễn Ninh Hải • Mr. Martin Hoppe
9.10-9.20	Follow-up on the 2018 High-Level Meeting <p><i>Secretariat: Brief report on the HLM and further process of monitoring/ implementing the TWG Policy Recommendations</i></p>
9.20-10.00	Brief updates on current EREA projects and member activities <p><i>EREA/DP inputs: Update on key policy processes (Wind PPA, Auctioning, PDP8)</i></p> <ul style="list-style-type: none"> • <i>Participants: Brief update on current activities by VEPG partners with respect to the focus topics of the TWG</i>
10.00-10.10	Coffee/tea break
10.10-10.50	Special Focus Topic: Solar FiT 2 <p><i>EREA: Presentation of the new draft of Solar FIT 2</i></p> <ul style="list-style-type: none"> • <i>Q&A session / plenary discussion</i>
10.50-11.10	MoIT Solar Rooftop Program <p><i>EREA/DP inputs: Presentation of draft Rooftop Program</i></p> <ul style="list-style-type: none"> • <i>Q&A session / plenary discussion</i>
10.10-10.50	Conclusions and discussion of TWG 1 work plan 2019 <p><i>Discussion of key topics for next meetings in 2019</i></p> <ul style="list-style-type: none"> • Mr. Nguyễn Ninh Hải • Mr. Martin Hoppe

ANNEX 2 - Participants

Co-chairs

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

Participants

- **Ms. Đỗ Minh Tâm**, Green Innovation and Development Centre (GreenID)
- **Mr. Hoàng Trung Thành**, Green Innovation and Development Centre (GreenID)
- **Mr. Bastiaan Teune**, SNV Viet Nam
- **Mr. Dương Hà Minh**, Viet Nam Initiative for Energy & Climate (VIEC)
- **Mr. Lê Hải Hưng**, Hanoi University of Technology
- **Mr. Ivo Hooghe**, Belgium Embassy
- **Mr. Nicolo Cora**, Italy/AICS
- **Mr. Antoine Vander Elst**, EU Delegation
- **Mr. Nguyễn Văn Hòa**, US Embassy
- **Mr. Phạm Đức Tùng**, French Development Agency (AFD)
- **Mr. Đào Xuân Lai**, United Nations Development Program (UNDP)
- **Ms. Lê Hạnh**, GGGI
- **Mr. Trần Hải Anh**, Norway
- **Mr. Sven Ernedal**, GIZ
- **Mr. Vũ Quang Đăng**, ADB
- **Mr. Đỗ Đức Tường**, USAID/V-LEEP
- **Mr. John Bruce Wells**, USAID/V-LEEP
- **Mr. Nguyễn Hải Đức**, USAID/V-LEEP Viet Nam
- **Mr. Koji Shimizu**, JICA
- **Mr. Bùi Thành Trung**, JICA
- **Mr. Nguyễn Ngọc Sang**, UK/British Consulate General
- **Mr. Tomaso Andreatta**, EuroCham
- **Mr. Phạm Đình Minh Hải**, Conergy Asia
- **Ms. Trịnh Quỳnh Chi**, Clean Energy Investment Accelerator (CEIA)
- **Ms. Bethany Speer**, National Renewable Energy Laboratory (NREL/USA)
- **Ms. Liu Yi Yeoh**, Scatec Solar
- **Mr. Gao Dao Zhong**, GCL Intelligent Energy
- **Mr. Lương Bá Hùng**, VBF Energy Group
- **Mr. Lưu Minh Tiến**, Solar Electric Viet Nam
- **Mr. Nguyễn Xuân Hòa**, Solar Electric Viet Nam
- **Ms. Vũ Thu Hiền**, Ernst & Young Viet Nam
- **Mr. Nguyễn Trọng Nguyên**, ACO Investment Group & CONVALT Energy

VEPG Secretariat

- **Mr. Rainer Brohm**, VEPG Secretariat



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

ANNEX 3 - SUMMARY MINUTES

Agenda item	Summary
Opening remarks	The <u>Chair and Co-Chair</u> welcomed participants, introduced the agenda and encouraged all participants to active discussion on the consultation of the draft Decision on Solar FiT 2.
Follow-up on the 2018 High-Level Meeting	<p><u>The Secretariat</u> reported on the Policy Recommendations endorsed at the 2nd High-level meeting of the VEPG in November 2018.</p> <ul style="list-style-type: none"> The Secretariat presented a Matrix to track the progress of the implementation of the endorsed Policy Recommendations. This Matrix will allow the monitoring, follow-up and reporting (to the VEPG Steering Committee and HLM) on the progress of the implementation of the Policy Recommendations (See Annex 4.1). The Matrix will be updated regularly and discussed in TWG 1 meetings. <p><u>The Secretariat</u> presented the tentative work plan and the timeline for the TWGs, Steering Committee and the High-Level Meeting in 2019 (See Annex 4.3)</p> <p><u>The Secretariat</u> presented the VEPG Website including new features:</p> <ul style="list-style-type: none"> The Secretariat introduced new tools to support VEPG members such as the legal database, information on partner events and project milestones and an overview of all Development Partner projects in the sector (please refer to www.vepg.vn). The Secretariat invited all TWG members to submit information on project activities or workshops/events to be featured on the VEPG website or to be disseminated to all VEPG members via E-Mailings. The Secretariat also introduced the new email address: secretariat@vepg.org.vn. (See Annex 4.3)
Brief update on current EREA projects and member activities	<p><u>The Chair and TWG members</u> outlined and discussed their current activities in the context of TWG 1's focus topics.</p> <ul style="list-style-type: none"> <u>The Chair</u> gave several policy updates on Wind Energy, Solar Energy, Solar Auctioning Scheme, and Rooftop Program as follow: <ul style="list-style-type: none"> <u>Wind energy</u>: PM Decision 37/2011 QĐ-TTg is now revised by PM Decision 39/2018 QĐ-TTg . The Wind PPA is also revised and the new Wind FiT will be applied up until end of 2021. <u>EREA/MOIT</u> took note of several queries/comments/inputs from TWG members regarding the current Wind Decision and PPA. <u>Solar energy</u>: PM Decision 11/2017 QĐ-TTg has been partly revised regarding some articles for rooftop systems with PM 02/2019 QĐ-TTg. In addition, the MOIT issued Circular 05/2019 TT-BCT to update the PPA for solar rooftop. MOIT is now working on a draft Solar FiT decision to replace Decision 11. The draft decision is now available on the MOIT website for comments and inputs and is expected to be submitted to the Prime Minister for approval by June

	<p>2019. Comments collected in this TWG 1 meeting will be submitted to EREA/MOIT to be considered within the consultation process.</p> <ul style="list-style-type: none"> ▪ <u>Solar Auctioning Scheme</u>: EREA is working closely with the World Bank regarding the development of a solar auctioning scheme. EREA is also working with ADB to prepare documents for implementation of the pilot auctioning for solar and wind energy after 2020 or 2021. ▪ <u>Rooftop Program</u>: MOIT's study with USAID on rooftop program which is planned to be submitted to the Prime Minister for approval. As part of this meeting the planned Solar Rooftop Support Programme will be presented and discussed. ▪ <u>Off-shore wind</u>: some TWG members expressed their concerns about little available information regarding off-shore wind regulations as well as off-taker and government's obligations. It was considered to focus one of the next TWG 1 meetings on wind off-shore. ▪ <u>Action Plan for Renewable Energy</u>: USAID is supporting EREA to develop an Action Plan for Renewable Energy. It is planned to submit a draft to the PM within March. <ul style="list-style-type: none"> • <u>USAID</u> shared information on their work with ERAV to propose a synthetic DPPA model for Viet Nam. A workshop in the following week would be organized by REBA Viet Nam in HCMC to introduce their proposed models and collect feedbacks from off-takers/developers for model design. • <u>ADB's</u> activities included a study on auctioning under the topic of power sector reform. In May/June ADB will hold a consultation workshop to discuss their proposed draft PM decision on auctioning together with one MOIT circular, 2 drafts on a standard PPA and land leasing document for the market. ADB also planned for a study on battery storage with the focus on battery storage system pilot project and supporting ERAV to revise transmission and grid codes for battery storage. ADB further offered to support the MOIT in the implementation of auctioning for pilot projects in CCGT, LNG, Wind and Solar. • <u>GreenID</u> shared information on the upcoming 4th Renewable Energy Week Viet Nam with the focus on bringing RE to every family in the country. A concept note of the event is expected to be ready in April. • <u>SNV</u> is working together with GreenID on a solar rooftop program which will benefit local communities with the focus not only on legal but also on social engineering aspects. • <u>IICA</u> proposed an ongoing study on transmission lines and is looking for future cooperation with MOIT and other Development Partners. • <u>GIZ</u> introduced a list of ongoing studies and support activities to MOIT such as the revision of the biomass FiT, a grid absorption capacity assessment in the Mekong region, energy access activities etc. GIZ is also working on a PPP project with Cat Tuong, an insulation material manufacturer that will also include the development of investment guidelines for commercial rooftop systems (available end of 2019). • <u>GGGI</u> is developing two projects including (i) solar leasing financing facility for rooftop program in industrial parks and (ii) development of
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	<p>two energy projects in cooperation with EEP Mekong programme of the Finnish Government.</p> <ul style="list-style-type: none"> • <u>Belgium</u> will organize a workshop together with the University of Leuven and NUCE on April 10 on Solar Energy Development in rural Viet Nam (information will be disseminated via the VEPG Secretariat). <p><u>The Chair and Co-chair</u> concluded this agenda:</p> <ul style="list-style-type: none"> • The Chair and Co-Chair thanked all TWG members for their updates on their ongoing project activities and up-coming projects.
<p>Special Focus Topic: 2nd Draft Decision on Solar FiT</p>	<p><u>The Chair</u> introduced the published Draft for a PM Decision to replace Decision 11/2017 QD-TTg. <i>(A summary of the Draft of the Decision provided by the VEPG Secretariat can be found in Annex 4.2)</i></p> <ul style="list-style-type: none"> • The draft is available on the Website of the MOIT for comments. Deadline for comments is April 15, 2019 as the Draft will be submitted to the Prime Minister as soon as possible and is expected to be approved by June 2019. • After the decision is approved, the MOIT will publish further related circulars. The drafts of related circulars are not yet opened for comments as EREA is waiting for the approval of the Decision. <p><u>Summarized here are the main comments of TWGs members on the Draft Decision and the (preliminary and non-committal) clarifications from the Chair</u> (see more detailed comments in Annex 4.2)</p> <ol style="list-style-type: none"> 1. <u>The capacity limit for solar rooftop systems:</u> <ul style="list-style-type: none"> ▪ In the draft decision, the capacity limit for rooftop solar is 1 MWp (beyond this, PV systems would be treated like ground-mounted systems with a lower FiT). Several participants expressed that the capacity limit should be raised to 3 MWp or 5 MWp in order to attract more investment into solar rooftop projects, especially in industrial areas with larger roofs available. ▪ The Chair clarified on this that MoIT has considered this issue on both technical and financial aspects. On technical aspects, bigger than 1 MWp projects need to be studied and considered carefully because of grid stability issues. On financial aspects, bigger than 1 MWp projects are profitable as ground mounted tariff projects. ▪ Furthermore, two systems with less or equal than 1 MWp each that have two different connection points could be treated as two separate systems and the appropriate FiT will apply. 2. <u>Efficiency standard for PV Cell:</u> <ul style="list-style-type: none"> ▪ The chair clarified regarding the requirement of minimum cell/module efficiency that according to Clause 2 of Article 8, "the FiT only apply to projects that have solar cell efficiency exceeding 16% or module efficiency exceeding 15%". The efficiency is announced by manufacturer and certified by third parties. 3. <u>Responsibilities of EVN:</u> <ul style="list-style-type: none"> ▪ Regarding EVN responsibilities the Chair clarified that EVN will prioritize the purchase from RE sources rather than from traditional source if the grid operational conditions allow. The procedure of

	<p>connecting to the grid is the responsibility of EVN due to their technical expertise.</p> <p>4. <u>RTS business models:</u></p> <ul style="list-style-type: none"> Some questions regarding the wording/formulation of the four business models for solar rooftop projects in the Draft Decision were expressed, The Chair took note on these issues and added that clarifications would be considered for the further revision of the draft decision. <p>5. <u>New PPA for rooftop systems:</u></p> <ul style="list-style-type: none"> The Chair clarified that under the current legal framework, it is not possible for a third party to invest in and operate systems under 1 MWp and sell directly to customers on-site. However, in the new decision, this will be possible. Furthermore, with the new PM decision, a new circular on rooftop PPAs will replace Circular 5/2019 (specifically to update the new FiT levels). In addition, EVN will issue the procedure for the signing of PPAs based on EVN's testing. EVN will also streamline the procedure. <p>6. <u>Solar Projects with Storage system:</u></p> <ul style="list-style-type: none"> Regarding the type of storage systems eligible for the special FIT the Chair clarified that while there are many different types of storage systems following the current draft of the Decision only "chemical electricity storage" (battery) would be eligible. Furthermore, technical requirements and specifications for batteries in that context would be released in the form of a related circular instead of a PM decision. <p>7. <u>FiT Zones:</u></p> <ul style="list-style-type: none"> Regarding FiT zoning methodology the Chair clarified that the FiT zones were divided based on Maps of Solar Resource and Potential in Viet Nam (2014) and the grid absorption and transmission capacity of each province. <p>8. <u>Other incentives mechanisms:</u></p> <ul style="list-style-type: none"> Regarding other incentive mechanisms the Chair clarified that the decision only includes the FiT in order to avoid duplication with other incentive mechanisms published in other documents. In addition, the clause regarding the MOF tax incentives has been deleted by Decision 02/2019 QĐ-TTg replacing Decision 11/ 2017 QĐ-TTg. <p><u>The Chair</u> concluded in this agenda topic:</p> <ul style="list-style-type: none"> The Co-chair thanked all TWG members for providing comments and feedback on the Draft Decision on Solar FiT 2. Additional comments on the draft can be sent via the MOIT's Website or via the VEPG Secretariat. The MOIT/EREA will take these comments and feedbacks into account in the Decision submitted to the PM for approval.
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<p>Inputs on MOIT's Solar Rooftop Program</p>	<p><u>The MOIT/ EREA</u> is developing a comprehensive program with the objective of promoting the development of Solar Rooftop. The Chair called for the mobilization of resources and technical support from DPs to implement the program and to collaborate with the MOIT to avoid duplication of efforts and to maximize its incentives. The MOIT is working with several DPs, in particular, USAID is supporting the finalization of the draft of the program for the MOIT's Minister approval and afterwards, the submissions to the PM for approval.</p> <p><u>USAID</u> presented its draft program which will operate from 2019 to June 2021 targeting 100,000 solar rooftops and covering 6 key aspects:</p> <ul style="list-style-type: none"> i. development of legal and regulatory framework looking at incentive mechanism, tax, building codes, construction standards...; ii. improvement of technical standards, regulations, guidelines for installation and certification system for solar rooftop; iii. market developments (market data and information exchange); iv. general capacity development and awareness raising; v. a pilot program and vi. monitoring and evaluation. <ul style="list-style-type: none"> • USAID is currently actively working with GIZ and World Bank to develop a draft promotion program with an overall objective of accelerating investment in the solar rooftop sector in particular and green energy development in general. Subsequently, the finalization of the programme would include further energy sector stakeholders in a consultation process. • The outline of the program would be circulated later for further comments/inputs. USAID emphasized that this program is a collaborative activity which needs support such as financial assistance/technical advice from DPs, private sector and other sector stakeholders to achieve success. <p><u>GreenID</u> shared information on the current development of a "1 Million Green Homes" initiative. The program focuses on one stop shop for knowledge about solar rooftop as well as energy efficiency in Viet Nam including information on legal documents, best practices, mapping of suppliers and price etc.</p>
<p>Conclusions, agreements, closing remarks</p>	<p><u>The Chair and Co-Chair</u> concluded the meeting with the following remarks:</p> <ul style="list-style-type: none"> • The Chair and Co-Chair thanked all TWG members for joining and for their active and constructive participation. • The Co-chair, Mr. Hoppe, informed TWG 1 members that his posting in Viet Nam will end this summer and with this his Co-Chairing role for TWG 1. • The Secretariat informed members that the VEPG Steering Committee will discuss the topic of appointing new Co-chairs for 3 TWGs with current Co-Chairs leaving the country in its next meeting which is planned tentatively in May. In case VEPG member institutions are interested in co-chairing a TWG they are invited to contact the Secretariat.

	<ul style="list-style-type: none"> • The Chair thanked the Co-Chair for his leadership and continuous support of and contribution to the work of TWG 1 and wished him good fortune for his future post in Germany. • The Co-Chair thanked the Chair and the Secretariat and wished the TWG continuous success and invited all members to further support the work of TWG 1 and use the opportunities that this collaborate project opens for all partners. <p>The next TWG 1 meeting will take place after the summer (tentatively August/September). All members are invited to send ideas/priorities for topics for this meeting to the Secretariat.</p>
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ANNEX 4.1 – POLICY RECOMMENDATIONS MONITORING MATRIX

Policy Recommendations TWG 1 Renewable Energy		Timeframe	Instruments & Indicators	Status	Responsible Government Agency	Supporting DP	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/EREA	EU/GIZ 4E/EVEF Project support on Solar FIT 2	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/EREA		MoIT Circ. 2/2019 with revised PPA for Wind published (28.02.19)
Topic 2	→Improvement of the solar rooftop incentive mechanism Overcome investment barriers in the solar PV rooftop sector and mobilize private (residential rooftop) and private sector (commercial-industrial rooftop) investment potentials.						
	Revise the existing net metering scheme (Dec.11/2017/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	MoIT/EREA		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/EREA	EU/GIZ 4E/EVEF Project support on Solar FIT 2	MoIT draft Solar FIT 2: new PM Dec. (replacing PM Dec. 11/2011) published for consultation (21.2.19)
Topic 3	→Develop future wind and solar support mechanisms (including auctioning) Develop a future procurement framework for renewable energies that limits barriers for project development and gives long-term investment security.						
	Develop the future procurement framework for renewable energies along the guiding principles of harmonization and streamlining of the regulatory framework, non-discrimination of RE technologies against other technologies, long-term compatibility with the Viet Nam Wholesale Electricity Market, compatibility with the specific Vietnamese market and public-sector environment, long-term signaling for investors and specificity of policy instruments for different RE projects or market segments.	Short-Term: (end of 2019)	Revision of solar support mechanism (Dec.11/Cir.16)	Ongoing	MoIT/EREA	EU/GIZ 4E/EVEF Project support on Solar FIT 2	PM Dec. 39/2018 on revised Wind-FIT issued (10.09.2019). MoIT draft Solar FIT 2 (revision of PM Dec. 11/2011) published for consultation (21.2.19)
		Medium-Term: (end of 2020)	Development of auctioning pilot for solar/wind	Ongoing	MoIT/EREA	GIZ Wind Auctioning support WB Solar Pilot Auctioning ADB Auctioning Implementation	Development of auctioning pilot programme
		Long-Term (post-2020)	Further development of other incentive mechanisms for RE (VWEM, RPS, DPPA, etc.)	Ongoing	MoIT/EREA /ERAV	USAID: Pilot DPPA (ERAV) USAID: RPS scheme (EREA) WB: VWEM support (ERAV)	Development of pilot DPPA (ERAV/USAID) Development of VWEM (ERAV/WB) Development of RPS scheme (EREA/USAID)
Topic 4	→Integration of fluctuating renewable energy in the national grid ❑ Implement measures that assure the necessary absorption capacity of the national power grid (in time and amount) to allow large-scale wind and solar generation development.						

	Develop and implement a transparent and comprehensive RE project approval process.	Short-Term (end of 2019)	Revise process of including RE projects to Power Plan (PDP)	Ongoing	MoIT/EREA MPI (Planning Law)	EU/GIZ 4E/EVEF Project support on Solar FIT 2	Completed for wind: new procedures for Wind power project development (MoIT Circ. 2/2019 , 28.02.2019). Ongoing for solar: New MoIT Circ. for solar project development (replacing Circ. 16/2017) will include guidelines from new MPI Planning Law (upcoming MPI Circular/Decree on implementation of new Planning Law)
	Invest in grid expansion considering potential future RE development	Medium-Term (end of 2020):	Align RE capacity planning and grid planning in PDP VIII	Ongoing	MoIT/EREA /EVN	WB PDP 8 support USAID PDP 8 support DEN Energy Outlook GIZ Grid Capacity Assessment (Southwest)	Ongoing PDP 8 development Ongoing MoIT/EVN grid expansion projects
	Designate zones for RE (e.g. in line with the auction strategy)	Medium-Term (end of 2020):	Zonal approaches in FIT mechanisms or designated zones for RE auctioning	Ongoing	MoIT/EREA	EU/GIZ 4E/EVEF Project support on Solar FIT 2 WB Solar Auctioning Pilot	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	MoIT/EREA (PDP8) MPI Planning Law	WB and USAID support for PDP8 development DEN Energy Outlook	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	GIZ Smart Grid Project	<p>MoIT/ERAV Circular 25/2016/TT-BCT (Regulations for transmission system) and</p> <p>MoIT/ERAV Circular 39/2015/TT-BCT (Regulations for distribution system) currently under revision (first draft expected by end of May)</p> <p>Preliminary revision of Circ. 25 and 39 under consultation, to be published soon (March/April)</p>
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ANNEX 4.2 - SUMMARY OF THE DRAFT SOLAR FIT 2 FOR TWG MEMBERS

Draft PM Decision xx/2019 on the new Solar FIT 2 regulation

MOIT draft issued on 21.02.2019

*The VEPG invites all VEPG members and energy sector stakeholders to submit comments to the draft to the VEPG Secretariat by **March 8, 2019**. The Secretariat will compile all comments and submit them to EREA/MOIT. The draft and all comments will also be discussed at the TWG 1 meeting on March 15, 2019. VEPG Secretariat contact: secretariat@vepg.org.vn (or Mr. Nhat: 0936066221).*

Summary of the Draft Solar FIT 2 for TWG members¹

- **Validity of the regulation/the Feed-in-Tariffs (FIT):** From 1.7.2019 (entering into force) until COD (Commercial Operation Date) of parts or of whole of system before *month/2021* (month not yet specified in the draft, see Art. 8.3, to be confirmed: COD before July 2021).
- **PPA term:** 20 years from COD. After that, contract partners can agree on a contract/PPA extension.
- **The regulation clusters provinces into 4 tariff zones (I-IV) differentiated by solar irradiation** (projects in higher irradiation areas will get a lower FIT than projects in lower irradiation zones, logic behind this: IRR for investors should be comparable across the country irrespective from the location of the project. This is aiming at a better distribution of solar PV capacities in the country to avoid grid congestion in high-irradiation areas, see Annex I of the draft regulation).
- The **4th FIT zone** with the lowest FITs includes Phu Yen, Gia Lai, Dak Lak, Khanh Hoa, Ninh Thuan, Binh Tuan. It applies for all FIT categories incl. the storage FIT.
- There will be **one set of Feed-in-Tariffs for the whole 2-year period for those four tariff zones**. The tariffs differentiate four categories:
 - Cat.1: *Floating solar* power projects
 - Cat.2: *Land-based* (ground-mounted) *solar power* projects
 - Cat.3: *Solar power* projects (ground-mounted) with *integrated electrochemical (battery) storage*.
 - Cat.4: *Rooftop solar power systems* on building rooftops or integrated to construction works.
- **Integration of electrochemical (battery) storage** is voluntary for project investors and will be granted a higher FIT in zones III and IV. Minimum storage capacity to be eligible for the higher FIT: 25% of AC system power for two hours. Further details (potential

¹ **Disclaimer:** This summary represents the interpretation and opinion of the VEPG Secretariat regarding the draft document and should in no case be understood as legal advice. The VEPG Secretariat does not take any responsibility for the correctness of this information. Please refer to the original MOIT document or to MOIT/EREA as the author of the document. Furthermore, please note that the regulation is subject to change due to the draft nature of the MOIT document. This is a service of the VEPG Secretariat for VEPG members. For any questions, please contact the Secretariat: secretariat@vepg.org.vn.

technical or operational requirements for the storage) are expected to be regulated in a following MOIT Circular (New Circular to replace Circ. 16/2017).

- **1MWp threshold for rooftop systems:** above 1MWp rooftop systems will be granted the ground-mounted FIT of Cat.2.
- **Rooftop definition:** on the roof of a building or integrated into a construction work (definition according to Law on Construction, construction needs to have a construction license, PV system needs to be physically connected to the building/construction works).
- **Rooftop:** distinction between four different operational/business models for rooftop FIT (Art.9.1-9.4)²
 - **‘Self-consumption plus excess FIT’ model** (self-consumption of generated solar power plus selling excess solar power to EVN Power Company via FIT, for all investor types).
 - **‘FIT only’ model** (100% of generation is sold to EVN Power Company via FIT, no self-consumption).
 - **‘Direct electricity selling’ model** (selling the generated solar power to a third-party buyer without use of national electricity grid based on an individual PPA, e.g. on-site Direct Power Purchase Agreement or sale within an industrial park, for all investor types).
 - **‘FIT model via intermediary grid/distributor** (selling the generated solar power to EVN Power Company via a non-EVN intermediary grid/distributor, e.g. communal grid/mini-grid etc.), for all investor types).

FIT Scheme for Solar Power Projects (according to Annex II of the draft regulation):

No.	Solar power technology	Tariff for Zone I		Tariff for Zone II		Tariff for Zone III		Tariff for Zone IV	
		VND/kWh	US cent/kWh	VND/kWh	US cent/kWh	VND/kWh	US cent/kWh	VND/kWh	US cent/kWh
1	Floating solar power project	2.159	9,44	1.857	8,13	1.664	7,28	1.566	6,85
2	Ground-mounted solar power project	2.102	9,20	1.809	7,91	1.620	7,09	1.525	6,67
3	Solar power project integrated with the energy storage system	-	-	-	-	1.994	8,72	1.877	8,21

² The translation of the operational model names was adapted for better understanding based on the authors interpretation of the draft regulation.

4	Rooftop solar power project (power selling household and power consumption household model)	2.486	10,87	2.139	9,36	1.916	8,38	1.803	7,89
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Solar Radiation Zones (according to Annex I of the draft regulation):

No	Province	No	Province
	Zone 1 (28 provinces)		Zone 3 (23 provinces)
1.	Hà Giang	35.	Kon Tum
2.	Bắc Kạn	36.	Cà Mau
3.	Cao Bằng	37.	Hậu Giang
4.	Tuyên Quang	38.	Bình Định
5.	Thái Nguyên	39.	Bạc Liêu
6.	Lào Cai	40.	Kiên Giang
7.	Yên Bái	41.	Sóc Trăng
8.	Lạng Sơn	42.	Cần Thơ
9.	Quảng Ninh	43.	Vĩnh Long
10.	Phú Thọ	44.	Trà Vinh
11.	Vĩnh Phúc	45.	Lâm Đồng
12.	Bắc Giang	46.	Bến Tre
13.	Hải Dương	47.	Tiền Giang
14.	Hòa Bình	48.	An Giang
15.	Hà Nội	49.	Đắk Nông
16.	Hà Nam	50.	TP. Hồ Chí Minh
17.	Bắc Ninh	51.	Đồng Nai
18.	Hưng Yên	52.	Đồng Tháp
19.	Hải Phòng	53.	Bà Rịa – Vũng Tàu
20.	Ninh Bình	54.	Long An
21.	Thái Bình	55.	Bình Dương
22.	Hà Tĩnh	56.	Bình Phước
23.	Nam Định	57.	Tây Ninh
24.	Quảng Bình		Zone 4 (6 provinces)
25.	Thanh Hóa	58.	Phú Yên
26.	Lai Châu	59.	Gia Lai
27.	Nghệ An	60.	Đắk Lắk
28.	Sơn La	61.	Khánh Hòa
	Zone 2 (6 provinces)	62.	Ninh Thuận
29.	Quảng Trị	63.	Bình Thuận
30.	Điện Biên		
31.	Thừa Thiên Huế		
32.	Quảng Nam		
33.	Đà Nẵng		
34.	Quảng Ngãi		

ANNEX 4.3 – DETAIL COMMENTS ON THE 2ND DRAFT OF THE DECISION ON SOLAR FIT

Consultation on draft PM Decision for the Solar FIT 2 (draft issued by MoIT on February 21, 2019)

The following comments and questions from energy sector stakeholders were collected and documented by the VEPG Secretariat during the 3rd meeting of VEPG TWG 1 on March 15, 2019. TWG members and further sector stakeholders additionally submitted comments and questions to the VEPG Secretariat before and after the meeting. This document was submitted to EREA/MoIT on April 3, 2019 as an input to the public consultation process on the Solar FIT 2.

Topic	Comments and questions from energy sector stakeholders
General Comments on the draft	
	<ul style="list-style-type: none"> • Many sector stakeholders see the draft Decision as potentially providing a more supportive legal framework for Rooftop Solar (RTS) investments in Viet Nam, particularly with the opening of new third-party investor models (e.g. on-site direct PPA, ESCO etc.) and increased FIT levels for some regions (due to the new FIT zone approach). • Sector stakeholders also see the potential of the new FIT zone approach to attract more solar ground-mounted project investments to regions in Central and Northern Viet Nam where grid capacity is available. • In general, there are still uncertainties and worries regarding the detailed regulations for ground-mounted PV that will be defined in an upcoming MoIT Circular (replacing Circular 16/2017). This applies specifically to the PPA regulation and related issues that have been discussed in the past already, such as the curtailment risks etc. • Furthermore, there is still need for clarification and open questions regarding legal definitions and some regulations in the draft Decision. This applies to terms of legal definitions, the defined business/FIT models, the role of investors and developers and of EVN in particular (also see the below comments and questions). • To reach investment security for the time after June 2019 (when the current FIT regulation expires) as soon as possible, the expected additional MoIT Circular (replacing regulations of Circular 16/2017) should be issued as soon as possible. • In this respect, MoIT Circular 5/2019, issued March 11, 2019 is understood as providing detailed regulations for RTS systems already. However, since this Circular 5/2019 refers to the FIT of the current PM Decision 11/2017, it is expected that this Circular also needs to be updated for the new FIT levels after June 2019.

Legal Definition	
<i>Electricity Buyers and Electricity Sellers</i>	<ul style="list-style-type: none"> • Need for clarification: Does the third-party investor/ developer fit into the definition of the “<i>Electricity Sellers</i>”? • Need for clarification: Does the term “<i>Electricity Buyers</i>” include the PV/project off-takers/ customers other than EVN or Power Companies under EVN? <p>1)</p>
Capacity threshold for solar rooftop	
1 MWp limit	<ul style="list-style-type: none"> • Many private sector stakeholders expect that the 1 MWp threshold will limit opportunities for investors and developers to invest in rooftop solar systems (RTS) especially in Industrial Areas. In Industrial Areas there are many larger roofs that could be suitable for larger than 1MWp systems and there is enough electricity demand to absorb the power from such large systems. In that respect, the 1MWp cap would restrict the growth of RTS development in Viet Nam. • Solar rooftop developers and investors therefore ask to raise the limit for rooftop systems to 3 to 5 MWp. • In either case, systems that are larger than 1 MWp (or the respective higher threshold) should still be eligible to receive the rooftop FIT and not be treated as a ground-mounted system. • In general, for solar rooftop systems there should be no administrative burdens such as electricity operation licenses or similar procedures since this would increase development costs and limit market development. Solar rooftop systems are a solution for so-called “peak-shaving” of electricity demand during the day and will therefore help EVN to meet peak demand in the network better in future. Therefore, there is no reason to limit RTS development in Viet Nam but rather to support the development best possible.
Multiple systems of less or equal to 1 MWp	<ul style="list-style-type: none"> • Need for clarification: In a case where a facility owner would like to invest less than 1MWp of RTS but a mix of RTS and ground-mounted (e.g 800 kWp RTS and small ground-mounted system of 400 kWp) within their facility: Assuming these two systems are connected to the same connection point, will the combined system be considered as RTS system and how will the 1MWp limit be applied? • Need for clarification: In the case where there are two RTS systems of less than 1 MWp with two different connection points but one investor, will the 1 MWp limit be applied?
Standards and technical specification	

PV cells/module requirements	<ul style="list-style-type: none"> Need for clarification: According to Clause 2 of Article 8 of the draft, “the FIT only applies to projects that have a solar cell efficiency exceeding 16% or module efficiency exceeding 15%”. However, PV cell/module efficiency decreases with time. Will the PV cell efficiency be certified on the date of installation or does it have to prove efficiency over lifetime?
Storage standards and specification	<ul style="list-style-type: none"> Need for clarification: Will other types of the storage than “electrochemical storage” (battery) be qualified for the FIT under this Decision? Need for clarification: How will the storage system be controlled from generation to storage and vice versa? Need for clarification: Will the technical standards and specification for storage be disseminated in a future circular? In general, if the use of battery is intended to improve the integration of solar and other renewable energy systems to the grid, there need to be specific rules for operation of the battery systems. E.g. an incentive/regulation that the discharge of the battery storage can only happen during non-peak hours (e.g. during night).
EVN Responsibilities	
Commissioning /technical checks of systems when connecting by third party experts	<ul style="list-style-type: none"> Need for clarification: Will EVN prioritize buying from renewable energy sources rather than traditional power sources? What happens if grid capacity is limited in a certain situation, will renewable energy sources always get priority? And will there be prioritized between different renewable energy projects in case of limited grid capacity? What is the nature of curtailment risks vs. other power generators on the grid? Need for clarification: Will EVN payment be made on the Provincial Level or by District Level? Need for clarification: The EVN quality test teams to check compliance of 10 quality indexes before installing the meter often lack capacity on the provincial level. As an example: often the technical teams from EVN Saigon will come to the project for commissioning/technical check, even when the project is far away from the city. This creates delays for the projects. Can developers hire a private entity with enough tools, equipment and qualification to do the quality check instead of the EVN quality test?
Business model	
RTS models 3 and 4, direct PPA with non-EVN	<ul style="list-style-type: none"> In general, many stakeholders see the need for further clarification/explanation of the four RTS operational models. Need for clarification: In the case of the new RTS FIT Model 3 and Model 4, do these two models allow for a Direct PPA be signed between Sellers and Buyers without EVN?

PPA	
	<ul style="list-style-type: none"> • Need for clarification: Can PPAs be issued first so that developers/ investors can easier get access to loans? • Need for clarification: Will a new PPA for ground-mounted PV systems be published when the new decision is approved? (also see above comment that a new circular should come as soon as possible to give investors more security).
FIT Zones and FIT level	
Methodology	<ul style="list-style-type: none"> • Need for clarification: How were the FIT zones divided and what is the logic behind zone IV specifically?
FIT levels for RTS	<ul style="list-style-type: none"> • Specifically, for the lower zones III and IV RTS developers see higher requirements for third-party investor models (on-site DirectPPA, ESCO etc.). Here the reduced FIT levels compared to the first FIT 1 phase seem to be challenging. Pure self-consumption projects are less dependent on the FIT level for excess solar power generation since they build on electricity bill savings mainly.
FIT for Floating PV	<ul style="list-style-type: none"> • The FIT for Floating PV should be 3 to 5% higher than ground mounted systems in order to cover the additional equipment costs.
Additional comments	
	<ul style="list-style-type: none"> • Why does the Decision not address other incentive mechanisms for the development of Solar energy such as tax incentives? Tax incentives could be helpful to stimulate investments in certain market segments.

Contact:

VEPG Secretariat

Email: secretariat@vepg.com.vn

Phone: +84 (0) 93 60 66 221



ANNEX 4.4 – PRESENTATIONS



Viet Nam Energy Partnership Group
 Technical Working Group 1 – Renewable Energy


3rd Meeting - 15. March 2019
 MoIT / EREA, Hanoi



Mr. Nguyen Ninh Hai,
 Director New and Renewable Energy
 Division, EREA/MoIT
 Chair of Technical Working Group 1

Mr. Martin Hoppe,
 Head of Economic Cooperation and
 Development, German Embassy
 Co-Chair of Technical Working Group 1

Agenda



Key objectives of the meeting:

- Follow-up on VEPG High-Level Meeting 2018
- Status report on key Renewable Energy topics and progress of implementing VEPG Policy Recommendations
- Discussion of focus topics „Solar FIT 2“ and „Solar Rooftop Programme“
- Discussion of TWG 1 work plan and focus topics for 2019 and beyond

Agenda



Time	Subject
9.00-9.10	1. Opening remarks, overview of the agenda <ul style="list-style-type: none"> Mr. Nguyen Ninh Hai / Mr. Martin Hoppe
9.10-9.20	2. Follow-up on the 2018 High-Level Meeting <ul style="list-style-type: none"> Secretariat: Brief report on the HLM and process of implementation/monitoring the TWG Policy Recommendations
9.20-10.00	3. Brief update on current EREA projects and member activities <ul style="list-style-type: none"> EREA/DP inputs: Update on key policy processes Participants: Brief update on current activities by VEPG partners with respect to the focus topics of the TWG
10.00-10.10	Coffee/tea break
10.10-10.50	4. Special Focus topic: Solar FIT 2 <ul style="list-style-type: none"> EREA: Presentation of new draft Solar FIT 2 Q&A session, plenary discussion
10.50-11.20	5. EREA/MoIT Solar Rooftop Programme <ul style="list-style-type: none"> EREA/USAID inputs: Outline of draft Rooftop Programme Q&A session, inputs from TWG members
11.20-11.30	6. Conclusions and discussion of TWG 1 work plan 2019 <ul style="list-style-type: none"> Mr. Nguyen Ninh Hai / Mr. Martin Hoppe

Secretariat Updates – www.vepg.vn



Legal database is online! (VN and EN)

RECENT LEGAL DOCUMENTS

MOIT Circular 02/2019/TT-BCT on Project Development and Standardized Power Purchase Agreement for Wind Power

- Effective date: 28/02/2019
- Legislation type: Circular
- Signer: MOIT Minister Trần Tuấn Anh

[DOWNLOAD FOR DETAILS >](#)

PM Decision 02/2019/QĐ-TTg amending Decision No. 11/2017/QĐ-TTg on Promoting solar power development projects in Viet Nam

- Effective date: 08/01/2019
- Legislation type: Decision
- Signer: Deputy Prime Minister Trịnh Đình Dũng

[DOWNLOAD FOR DETAILS >](#)

MOIT Decision 4651/QĐ-BCT on the VEIS Action Plan

- Effective date: 14/12/2018
- Legislation type: Decision
- Signer: MOIT Minister Trần Tuấn Anh

[DOWNLOAD FOR DETAILS >](#)

PM Decision 39/2018 QĐ-TTg on New FIT for Wind Energy

- Effective date: 01/11/2018
- Legislation type: Decision
- Signer: Prime Minister Nguyễn Xuân Phúc

[DOWNLOAD FOR DETAILS >](#)

PM Decision 1221/QĐ-TTg on Promulgating List of Designated Energy Users in 2017

- Effective date: 21/09/2018
- Legislation type: Decision
- Signer: Deputy Prime Minister Trịnh Đình Dũng

[DOWNLOAD FOR DETAILS >](#)

Gov Resolution 115/NQ-CP on Support Mechanisms for Solar Power Development in Ninh Thuận Province

- Effective date: 31/08/2018
- Legislation type: Resolution
- Signer: Prime Minister Nguyễn Xuân Phúc

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1 2 3 Next >

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Secretariat Updates – www.vepg.vn



VEPG partner events can be featured on the VEPG website



Consultation Workshop: Development of National Standards on Photovoltaic Module Safety Qualification

Under the framework of implementing the European Union (EU) funded Project on Development of Solar Energy in Danang (DSED) with

[READ MORE »](#)



Consultation Workshop of World Bank Vietnam and MoIT/EREA on "Solar Auctioning"

Consultation workshop on "Solar Auction – Strategy and Preliminary Findings on the Solar Auction Framework for Vietnam" The Electricity and

[READ MORE »](#)



High-Level Meeting 2018

The upcoming High-Level Meeting of the Vietnam Energy Partnership group will take place in November 2018.

[READ MORE »](#)

Please send information on your events/activities to the Secretariat!

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VIET NAM ENERGY PARTNERSHIP SECRETARIAT

Email us

secretariat@vepg.org.vn

Call us

+84 936 066 221

Our location

Viet Nam Energy Partnership Group

Electricity & Renewable Energy Authority (EREA) / Ministry of Industry and Trade (MOIT)

Room 702, 7th Floor, Ministry of Industry and Trade, 23 Ngo Quyen, Hoan Kiem District, Hanoi, Viet Nam

High-Level Meeting 2018

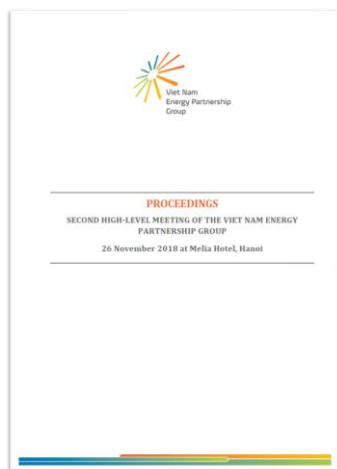


The HLM 2018

- **MoIT Minister and Co-Chairs of VEPG endorsed the Policy Recommendations** from 5 TWGs.
- **190 high-level representatives** from the energy sector (VN government, development partners, private sector, research & science, civil society)
- **Best-practice presentations** on Solar Power development, Energy Efficiency/ESCO models and Rural Electrification.



High-Level Meeting 2018



Proceedings of the HLM 2018

- Available for download at www.vepg.vn



VEPG - TWG 1 Policy Recommendations



Implementation of the VEPG Policy Recommendations

- **MoIT Minister and Co-Chairs of VEPG endorsed the Policy Recommendations from 5 TWGs.**
- **Technical Working Groups** are asked to focus work on supporting the implementation of the Policy Recommendations.
- **Review of progress in HLM 2019 (and 2020).**

VEPG - TWG 1 Policy Recommendations



Implementing the VEPG Policy Recommendations

→ Matrix for monitoring progress in implementation

Policy Recommendations TWG 1 Renewable Energy	Timeframe	Instruments & Indicators	Status	Responsible Government Agency	Supporting DP	Ongoing activity
Topic 1: →Revision of the PPA for solar and wind energy. De-risk investments in solar and wind energy projects and mobilize domestic and international private sector investment potentials.						
Revise the PPA for solar and wind energy based on international standards with focus on the key aspects of transmission and distribution risks, off-taker obligations, contract termination provisions, dispute resolution mechanisms, off-taker payment risks and future compatibility with the VN Wholesale Electricity Market.	Short-Term (end of 2019):	Solar: Solar FIT 2 New PM Dec. and MoIT Circ. (replacing Dec. 11/2011 and Circ. 16/2017)	Ongoing	MoT/EREA	EU/GIZ 4E Project support on Solar FIT 2	MoIT draft Solar FIT 2: new PM Dec. (replacing PM Dec. 11/2011) published for consultation (21.2.19)
	Short-Term (end of 2019):	Wind: Circular to implement Dec. 39/2018	Completed	MoT/EREA		MoIT Circ. 3/2019 with revised PPA for Wind published (28.02.19)
Topic 2: →Improvement of the solar rooftop incentive mechanism. Overcome investment barriers in the solar PV rooftop sector and mobilize private (residential rooftop) and private sector (commercial/industrial rooftop) investment potentials.						
Revise the existing net metering scheme (Dec.11/2017/GD-TTg and related MoIT's Circular 36) to overcome the existing barriers (taxation).	Short-Term (end of 2019):	Revision of PM Dec.11/2017 and MoIT Circ. 16/2017	Completed	MoT/EREA		PM Dec. 3/2019 amending Dec. 11/2017 published (8.1.19) changing net metering to FIT mechanism. MoIT Circ. 5/2019 amending Circ. 16/2017 published (11.05.2019)
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. 36/2017)	Ongoing	MoT/EREA	EU/GIZ 4E Project support on Solar FIT 2	MoIT draft Solar FIT 2: new PM Dec. (replacing PM Dec. 11/2011) published for consultation (21.2.19)
Topic 3: →Develop future wind and solar support mechanisms (including auctioning). Develop a future procurement framework for renewable energies that limits barriers for project development and gives long-term investment security.						
Develop the future procurement framework for renewable energies along the guiding principles of harmonization and streamlining of the regulatory framework, non-discrimination of RE technologies against other technologies, long-term compatibility with the Viet Nam Wholesale Electricity Market, compatibility with the specific Vietnamese market and public-sector environment, long-term signalling for investors and specificity of policy instruments for different RE projects or market segments.	Short-Term (end of 2019):	Revision of solar support mechanism (Dec.11/Cir-36)	Ongoing	MoT/EREA	EU/GIZ 4E Project support on Solar FIT 2	PM Dec. 39/2018 on revised Wind-FIT issued (10.09.2018). MoIT draft Solar FIT 2 (revision of PM Dec. 11/2011) published for consultation (21.2.19)
	Medium-Term (end of 2020):	Development of auctioning pilot for solar/wind	Ongoing	MoT/EREA	sac Wind Auctioning support WB Solar Pilot Auctioning ROR Auctioning	Development of auctioning pilot programme
	Long-Term (post-2020):	Further development of other incentive mechanisms for RE (VWEM, RPS, DPPA, etc.)	Ongoing	MoT/EREA/ERAV	USAID: Pilot DPPA (ERAV) USAID: RPS scheme (EREA) WB: VWEM support (ERAV)	Development of pilot DPPA (ERAV/USAID) Development of VWEM (ERAV/WB) Development of RPS scheme (EREA/USAID)

VEPG - TWG 1 Policy Recommendations



Implementing the VEPG Policy Recommendations

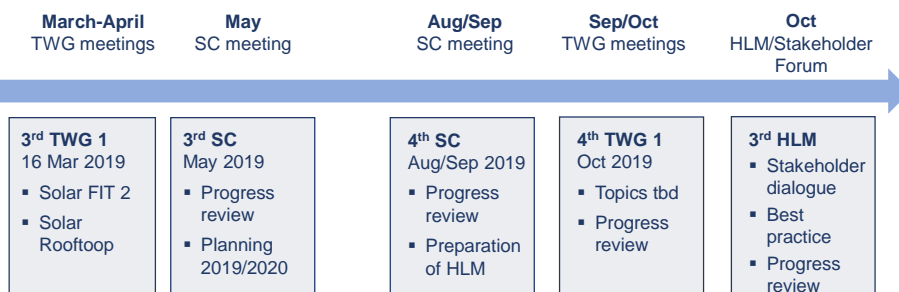
→ Matrix for monitoring progress in implementation

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

VEPG - TWG 1 Policy Recommendations



VEPG Planning 2019



Update on Current EREA/TWG 1 Projects



EREA/MoIT update on current topics

- New Wind PPA/Development Guidelines
- Auctioning
- (...)
- Q&A / Discussion

TWG 1 member updates

- New projects/activities?
- Upcoming events?



Coffee Break

Special Focus – Draft Solar FIT 2



EREA/MoIT Introduction: The draft Solar

- Key provisions of the new Solar FIT

Secretariat: Brief overview of stakeholder comments

- Overview of comments shared collected by the Secretariat

Plenary discussion

- Your questions and comments!
- Q&A

Draft Solar FIT 2 – First Stakeholder Feedback



General feedback: New draft Solar FIT seems to provide a **more supportive legal framework** for rooftop solar in Viet Nam.

However, stakeholders address several issues/clarification needs:

1. The legal definitions

- *Electricity Buyers* and *Electricity Sellers*
- Third-party investors/ developers as *Electricity Sellers*
- Commercial and Industrial actors (other than EVN) as *Electricity Buyers*
- EVN payment at District level or Provincial level?

2. Responsibilities of EVN

- EVN obligations regarding grid condition, curtailment risks vs. other power generators on the grid?
- Additional payments or taxes paid to EVN by building owners (or developers)
- Technical compliance check conducted only by EVN or with qualified private entity?

Draft Solar FIT 2 – First Stakeholder Feedback



3. Capacity threshold for rooftop systems

- 1 MWp capacity limit should be increased to encourage investment from the commercial and industry segment
- Mix of RTS and ground mounted (e.g 700 kWp roof and 400 kWp ground mounted)

4. Business models

- The four (04) models should be further elaborated
- Model 3 – *Direct Electricity Selling and Purchasing Model* (mua bán điện trực tiếp) allows third party ownership?

5. FiT for Solar Projects with Battery Storage

- Requirements/regulation of battery operation?
- E.g. time-of-use tariff or 24/7?
- Technical requirements for batteries and battery usage?

6. Tariff zones and Tariff level

- Tariffs feasible (zone III/IV) for ESCO/third-party models in particular?

Draft Solar FIT 2 – Discussion



• Definition of Terms

• Grid-connected PV systems (ground-mounted)

- NPDP inclusion
- Investment process
- Grid connection
- EVN responsibilities
- FIT tariffs

• Rooftop PV systems

- Business/FIT models
- EVN responsibilities
- FIT tariffs
- New PPA for rooftop (new Circular 05/2019)

Special Focus – Rooftop Solar Support Programme



Brief EREA/MoIT Introduction

- Rationale for a RTS Support Programme

USAID Input

- Outline of an Action Plan for Rooftop Solar Development in Vietnam

Plenary discussion

- Q&A
- Your questions and comments!
- What are priority needs of market stakeholders?

Outlook 2019 – TWG 1 Workplan



Topics for 2019/2020?

- Implementation of new Solar FIT 2
- Auctioning
- Grid integration of Renewables
- Wind-Offshore
- Bioenergy
- (...)

Conclusions and Closing



Change in Co-Chairing of TWG 1

- „The VEPG Chair and Co-Chairs thank Mr. Hoppe for his continuing support TWG 1 and his dedication to further the work of the Viet Nam Energy Partnership during is Co-Chair term.“
- New Co-Chair of TWG 1 will be assigned by the VEPG SC to beginn his/her term after the summer.



*Thank you for your attention
and participation!*





Greening Vietnam's Roofs: Rooftop Solar PV Systems

EREA Promotion Program

USAID Vietnam Low Emission Energy Program

John Bruce Wells – Chief of Party

RTS Report: From Review to Action Plan

Kick off June 2019

- *Overall Objective: To contribute to the achievement of REDS, to add generation of clean power, and to enable additional investments for solar PV rooftop systems in Vietnam. Team included V-LEEP, CPA, NREL, CEIA.*
- V-LEEP's Technical Report: Rooftop Solar PV Study

Chapter One	International Review	Delivered
Chapter Two	Overview of solar rooftop sector in Vietnam	Delivered
Chapter Three	Legal and Regulatory Framework	Delivered
Chapter Four	Recommendations on the model	Imminent

- V-LEEP will coordinate with the other relevant donors including GIZ and the World Bank to development an "Action Plan" implementing & promoting investment in rooftop solar PV projects.

- Financial support and incentives
- Technical Assistance/Support and Standards
- Marketing Support for stakeholders
- Monitoring and Evaluation



- Attract Investors
- Increase distributed generation
- Residential, commercial and industrial

Key Elements of Revised Solar Rooftop Program

Current legislation	Draft Decision on Feb 22 nd	Remarks
EVN as the sole electricity off-taker.	Opens for electricity distribution and retail units that are not under EVN	
Solar rooftop projects with capacity equals or exceeds 01 MWp will need to follow NPDP supplement process and achieve Electricity Operation License.	Solar rooftop projects with capacity exceeds 01 MWp will need to follow NPDP supplement process and achieve Electricity Operation License	Recommend to lift the bar to 03 MWp
Net metering as the only supporting mechanism for all solar rooftop installation	4 different models for solar rooftop power project, namely: (1) Electricity consumption unit; (2) Electricity selling unit; (3) Direct electricity selling and purchasing unit (4) Electricity selling and buying through an intermediary	
No instruction on the interconnection points	Specifies connection point to be behind or after the metering depends on each models	
...	...	

Action plan to promote Rooftop Solar PV

No.	Activity
1.	Improvement of Legal and Regulatory Framework
2.	Development of Technical Standards, Regulations and Guidelines
3.	Market Development
4.	Capacity Development and Awareness Raising
5.	Pilot Program
6.	Monitoring, Reporting and Evaluation

1. EREA/MoIT to approve the action plan;
2. V-LEEP to coordinate the overall action plan;
3. Each activity will need a lead donor and supporting donors (interested organizations include GIZ, WB, EU...).

Next Steps Action Plan to Kick off June 2019

- Finalize details of Promotion program's objectives and Action plan;
- Identify relevant stakeholders/beneficiaries;
- Identify relevant support from each stakeholder;
- Assign lead donor and supporting donors for each component of Action plan;
- Identify and fill potential gaps for existing Action plan.

Thank you

USAID Vietnam Low Emission Energy Program

