

MEETING BETWEEN ELECTRICITY REGULATORY AUTHORITY OF VIETNAM/RELEVANT AGENCIES AND VIETNAM BUSINESS FORUM

Time: 14:00, Tuesday, June 12, 2018

Venue: Ministry of Planning and Investment, 6B Hoang Dieu, Hanoi

SUMMARY**I. SUMMARY OF VBF'S ISSUES:**

Mr. John Rockhold, Head of Power & Energy Working Group, VBF

- **Power Development Plan 8 (PMP8):** VBF looks forward to participate in the analysis and recommendations for PMP8, which needs to call for 80 billion USD from the private sector.
- VBF also looks forward to participate in the updated PPA for solar to be done in July 2018. VBF was very happy about the latest news of EVN getting credit B+. The main reason for the lack of bankability to the existing PPA is due to the curtailment and the one year clause of closing project. VBF is willing to work further with the government to solve the problem.
- **Power pricing roadmap:** VBF recommends a market-based electricity pricing system in the PMP8, meanwhile support low-income people, energy efficiency and encourage investment in solar & renewable energy and overall power sector.
- **Solar energy rooftop:**
 - VBF recommends a solar energy rooftop regulation that allows a 3MW capacity plant could be implemented without a Power Operation License, which will help to bring in a lot of investment in solar rooftop.
 - EVN and other energy associations recently warned about the shortage of energy in the Southern Vietnam in the next 3 years. The demand for energy countrywide is at 10% countrywide, taking into account the demand of greater HCMC and industrial parks of Vietnam.
 - Recent WB's study shows rooftop solar potentials around HCMC of 6 GW.
 - If the problem is solved, the private sector is willing to invest 1 billion USD in the rooftop solar in the next year in HCMC.
 - VBF will have meeting by end June with HCMC leaders on the issue. VBF will also work closely with the World Bank on the development of financing strategy.
- **Direct Power Purchase Agreement (DPPA):**
 - When the pilot projects (with above 300 MW) happen? Some big (European, American, Japanese, Korean) companies are extremely interested in DPPA.
 - VBF wishes to know about the wheeling fee of 1.7 cents/KW. Taking into consideration that when DPPA is effective, energy produced from big factories in the South does not have to transport long distance into the grid. Thus, worldwide wheeling rate of 1 cent/KW is suitable.
- **Gas:**
 - Vietnam has its own gas fuels offshore in their own territorial waters which can be developed. Gas can be adjusted when we bring on more wind and solar.
 - PMP8 should consider more development on natural gas as it's good in terms of environment and energy security to the country.

II. RESPONSES BY THE ELECTRICITY REGULATORY AUTHORITY OF VIETNAM***Mr. Pham Quang Huy, Vice Director, Electricity Regulatory Authority of Vietnam (ERAV)***

- Regarding the 6 GW rooftop solar potentials and related policies, ERAV will take it into consideration during the amendment of Circular 12. Policies on clean energy and highly adjustable energy development are a top priority that ERAV, within its jurisdiction, will follow up with other relevant authorities.
- The Electricity Law was passed in 2004 and came into effect from July 1, 2005. Electricity policies in Vietnam consistently consider electricity as a leading product when it comes to attracting investment. ERAV's first priority is energy security, before the values and benefits of providing affordable electricity to users. ERAV is accountable for maintaining transparency in generation, transmission and distribution in the electricity sector.
- Long-term security requires more investment in electricity. Mid-term and long-term security means keeping a supply and demand balance at all times. In the distant future, without good policies, Vietnam will not be able to maintain energy security, especially as it has decided to move away from nuclear power.
- Energy from imported coal and gas, and renewable energy development all have inherent challenges and barriers, both technically and regulatorily. ERAV hopes that VBF can support us in the policy making process.

DPPA***Mr. Le Minh Duc, Director, Center for Electricity Market Development & Workforce Training, ERAV***

- ERAV is the responsible agency working with USAID to conduct a study since QII/2017.
- As the process unravels, USAID experts recognized that this is a much more complicated system and expected. And to date, this desk review has not been completed. Apart from ERAV, the involvement of other relevant agencies, including EVN, electricity transmission and distribution companies is also needed. However in this early stage, these stakeholders have not had sufficient inroad.
- The consultants have basically finished the first report on international experiences on DPPA from other countries, and are having further research on DPPA markets (buyer's demand, who is ready to participate in DPPA, at what price and output; are renewable energy developers willing to participate in the DPPA mechanism?).
- In addition to this market survey, the consultants have also developed a high-level master design for a DPPA scheme that is proposed to be used in Vietnam. The Ministry of Industry and Trade has put together a taskforce to provide inputs to this draft design.
- Building on the findings of the high-level design report and market survey, the plan for July is that the consultants will continue drafting the final report on the detailed blueprint for DPPA in Vietnam, and assess the policy gaps that should be addressed to get DPPA up and running, propose ways to develop a legal framework for DPPA in Vietnam, and introduce a design for a DPPA pilot project in Vietnam.
- Regarding the wheeling fee, the consultants have not come up with a specific number, until the market survey findings come out. As for VBF's suggested 300 MW, this number seems to have no manifest justification. ERAV will relay this question to the consultants for consideration in designing the pilot operation.
- Regarding the 1.7 cents wheeling fee, ERAV is unaware of the source of that information. For now, the Authority does not have a firm ground to define the exact wheeling fee. Technically, users of electricity grid infrastructure have to pay some user fee (including

transmission and distribution fees, for contingency services in the electricity system, and electricity system administration).

- When the Authority receives the report on the detailed blueprint for DPPA in Vietnam in July, if the report meets the required expectations, the Authority will hold a launch workshop for consultation with stakeholders.

ELECTRICITY RETAIL PRICES

Mr. Le Minh Duc, Director, Center for Electricity Market Development & Workforce Training, ERAV

The retail prices of electricity in Vietnam are now subject to the national electricity retail tariff, which is consistently applied across the country, without regional discrimination. This tariff is designed taking into account the following:

- Under the Electricity Law, the power tariff is made based on the national average retail prices for electricity. These prices are currently regulated by the Prime Minister's Decision 24 on regulating national electricity retail prices, including:
 - A primary mechanism exists to keep control of generation inputs, based on specific parameters, including fuel prices, exchange rates and electricity purchase cost in competitive power markets. Review of these changing costs is often done quarterly.
 - A secondary scheme will look at all the variations of electricity production and sales costs, including every stage from generation to transmission, distribution and so on. Reviews are often done at year-end.
- Decision 24 also clearly requires that any changes to the electricity price must meet two requirements: (1) no sooner than 6 months between two adjustments when there are changes with management costs; and (2) the current socioeconomic context must be relied on to review the adjustment decision.
- Electricity sales prices are also subject to the scope of the tariff. The Prime Minister released Decision 34 in 2017, setting the tariff framework for average electricity retail prices for 2016-2020. It spans from a low VND1,606.19 per kWh to a high of about VND1,906.42 per kWh, VAT excluded.
- In the making of the Power Master Plan 8, the agency responsible for making PMP8 will take into consideration the marginal costs of selling 1 kWh of electricity in the future period of 2020-2025.
- Every year, the Ministry of Industry and Trade tasks ERAV of monitoring EVN's electricity cost prices to guarantee transparency. Following such audits, the Ministry of Industry and Trade will hold a press conference to disclose EVN's electricity cost prices at every stage (generation, retail distribution, ancillary services and sector governance). At the same time, the Ministry of Industry and Trade website will also provide a link that is associated with input variables of the electricity sector, updated monthly, from fuel costs to generation structural costs of the electric system.

About VBF's 3 recommended key actions:

Mr. Le Minh Duc, Director, Center for Electricity Market Development & Workforce Training, ERAV

- ***Regarding the recommendation to have a day hourly tariff*** for commercial users, as a way to mitigate peak demand and peak loads on the transmission grid, Decision 28 has actually

had TOU (Time of use) prices for industrial and commercial users. The Ministry of Industry and Trade has also planned on reviewing Decision 28, and probably will refer to the government to have a replacement of Decision 28 in the near future. The Authority is working on a draft to be submitted to the Ministry of Industry and Trade leadership and government for review in October 2018.

- ***Creating a flexible regional electricity retail tariffs*** to reflect the different regional prices in the wholesale electricity market: The Authority is taking steps to introduce regional tariffs in the coming years. It will keep VBF updated as soon as something official comes up.
- ***Disclosure of the pathway for commercial and industrial electricity markets*** based on the 2020-2025 tariff: as discussed, given the philosophy of regulating the power tariff based on market rules and the guiding principles of the Prime Minister Decision 24, the Authority does not have such a pathway for public release now.

EXEMPTING ELECTRICITY OPERATOR LICENSE

Mr. Le Minh Duc, Director, Center for Electricity Market Development & Workforce Training, ERAV

- Exemption of electricity operator licenses is clearly defined in Article 34, Electricity Law, with the Ministry of Industry and Trade charged with developing and releasing detailed rules on this exemption for small-scale power plants. Before 2017, MOIT also had a circular on electricity operator licensing, which specifies that generation licenses may be exempted only for under-50 kW plants.
- But in 2017-2018 when working on development policies to promote renewable energy, especially solar power, in line with the government's agenda, MOIT has moved a step further by grandfathering a license for power plants with output of up to 1 MW (Circular 12).
- The Authority's position is that projects larger than 1 MW may have significant implications on the regional power system and related infrastructure, and must also comply with technological requirements and laws and regulations relating to the environment and fire control, thus they need to be controlled through an electricity operator license.
- The Authority will consider VBF's 3MW recommendation to see if it really helps promote investment in solar power and also how 3 MW plants may affect regional power grids. The Authority appreciates if VBF has any preliminary studies, international experiences, field studies and other to share.

Mr. Pham Quang Huy, Vice Director, Electricity Regulatory Authority of Vietnam (ERAV)

From now until November 2018, the Authority will need to release a revised version of Circular 12. As for the recommended license exemption for 3 MW plants, ***the Authority remains open to suggestions if VBF can provide international experiences or specific studies for HCMC area it may have, in order to consider policy changes.***

Mr. John Rockhold, head of Power & Energy Working group, VBF

- VBF appreciate ERAV's willingness and will provide more information regarding license exemption for 3MW plants.
- Regarding DPPA, please kindly make sure to send survey to/ collect data from big companies in Vietnam, such as Walmart, Google, Microsoft, GE,...

OTHER ISSUES

1. Mr. Hai, Lexcomm Law firm

- Pacifico company from the U.S. has a solar power project in Mui Ne, Binh Thuan, and also has clearly defined strategy and commitments to invest in solar power in Vietnam. The company, however, is concerned about how long until specific PPA adjustments will be made. Solar power PPA adjustments will be generic and cross-cutting changes that affect all kinds of renewable energy.
- Bankability, for all kinds of renewable energy, is now a monumental challenge, impeding investors' opportunities. Pacifico specifically had really a tough time making its case of bankability for the project when investing in Vietnam.

Response by Mr. Pham Quang Huy, Vice Director, Electricity Regulatory Authority of Vietnam (ERAV)

- ERAV is responsible for the direct power purchase agreement for renewable energy with buyers. The Master Plan, release of Decision 11 for solar power, and Prime Minister Decision 37 on wind power are legislation pertaining to the mandates of the Power and Renewable Energy Authority.
- As for bankability, ERAV's position is that pricing and timing would be decisive factors. In terms of pricing, this is a non-negotiable matter as the feed-in-tariff is determined by the Prime Minister in Decision 11, and commercial supply of solar power must start by June 30, 2019.
- Investors may have concerns about timing and dealing with procedures. This concern can be referred to the Power & Renewable Energy Authority for more detailed explanations.

Mr. John Rockhold, head of Power & Energy Working group, VBF

In the past, the government worked closely with WB, ADB, GIZ, ... to develop new policies. It's time to actually bring the private sector to the table because they are the ones who invest big amount of money.

Response by Mr. Pham Quang Huy, Vice Director, Electricity Regulatory Authority of Vietnam (ERAV)

Having been working on DPPA with Deloitte for a while now, the Authority has been collaborating closely and holding several roundtable discussions with buyers or investors for consultation purposes. Looking ahead, the Authority will have more discussions before official statements on DPPA projects are released.

2. Ms. Nguyen Hien Linh, Sustainable Development officer, Heineken Vietnam

- Heineken is using biomass renewable energy, which covers the entire thermal energy demand at Heineken. As for electricity power, Heineken is planning on having 3 out of 6 plants to have rooftop solar power. This source of solar power only covers 5%-10% of a plant's demand, partly due to the insufficient roof space, and secondly, the 1 MW output cap if you do not have a permit.
- Heineken hopes to participate in the over-1 MW DPPA pilot project and be a part of the operation. Heineken's current energy need across the country is about 10 MW. We also want

to know more information, including how much the wheeling fee would be, and specific DPPA provisions.

Response by Mr. Le Minh Duc, Director, Center for Electricity Market Development & Workforce Training, ERAV

- Wheeling fee: As mentioned, ERAV is working with the consultants on a viable recommendation. What we can be sure of is that before PPA pilot activities take place in around early 2019, specific numbers must be disclosed. The Authority will provide disclosures when it has official information in the near future.
- Regarding the pilot project, Deloitte - the consulting agency - will look into it and propose a specific scale of the pilot operation that fits the overall profile of the demand to participate in DPPA.
- DPPA provisions: The Authority does not have an answer now as it is still working with the consultants to select the best model for Vietnam. The proposal will include several models, as follows:

Physical DPPA:

- This can be divided into two categories: (1) On-site DPPA: plants built at a end-use load site; and (2) Off-site DPPA: the alternative energy generation plant and end-use loads will be a long distance away, and more facilities will need to be built to transport electricity through the power grid.
- In this approach, transactions between the seller and buyer can be considerably complex. In addition to a direct contract, the buyer – electricity user – is likely to need a back-to-back contract with the power grid service provider – power companies for example.
- The consultants are now reviewing the contract provisions and have not come up with a specific proposal.

Financial DPPA:

- If competitive markets and environments can be developed sufficiently to meet DPPA needs, Financial DPPA may be integrated in the competitive wholesale market, which is expected to go live in 2019.
- However, this is also under review since Financial DPPA is actually a kind of contract for differences. The buyer and generating plant co-sign a contract that only covers payment for the differences between the prices that the buyer and generating plant agree upon.

3. Mr. Vu Toan Thang, Manager, Energy markets, AES Vietnam

- DPPA: regarding the DPPA pilot, what is the target voltage for this pilot scheme? 220 kV? 110 kV? Or lower? When direct power purchasing mechanisms are applied, and a distribution voltage is used, i.e. about 22 kV or 35 kV, when would it be possible? Most end-users will connect to this distribution voltage.
- Promoting investment in solar power: In respect of pricing schemes, under Decision 11, solar power tariff will be 9.35 cents, VAT excluded, applicable to solar power stations connected to the grid by June 2019. But pricing schemes for after June 2019 have not been mentioned in any normative instruments. Does ERAV have any information to share on this pricing mechanism?

Response by Mr. Le Minh Duc, Director, Center for Electricity Market Development & Workforce Training, ERAV

- The Authority has not decided which voltage will be used. But discussions with the consultants seem to indicate that a priority will be given to users connecting to the 110 kV voltage system as it is easier to segregate costs for distribution or transmission.
- The 22 kV or 35 kV voltages will be somewhat more complicated as they require a complete separation between electricity distribution expenses and distribution grid and transmission grid user fees.
- Solar power promotion policies: The tariff set in Decision 11 for until June 2019 is 9.35 cents. After June 2019, how the feed-in-tariff is set depends on what technology prices will be in a specific period time. The Authority will relay this question to the Power & Renewable Energy Authority.

Response by Mr. Pham Quang Huy, Vice Director, Electricity Regulatory Authority of Vietnam (ERAV)

- Following discussions, the Power & Renewable Energy Authority, after watching the trends of technology prices and mechanism in other countries around the world, realizes that all countries have moved away from the feed-in-tariff approach, to an annual auction scheme for alternative energy.
- The Power & Renewable Energy Authority has requested WB assistance and retained consultants to study this auction mechanism, and had a first workshop in May 2018.

4. Mr. Nguyen Thanh Hai, lawyer, Baker & McKenzie Vietnam

- Regarding rooftop solar power, Circular 16 of the Ministry of Industry and Trade introduces two types of contract for one price and three prices. But recently, EVN also requested instructions from the Ministry of Industry and Trade on waiting for tax audit and payment of DPPAs based on 3-prices nominal values for rooftop solar power.
- In March 2018, EVN released an explanatory note to power companies, stating that without guidance from the Ministry of Industry and Trade/Ministry of Finance, rooftop solar projects have not got the tax audit and payment for the redundant electricity supply they feed to the grid for EVN and regional electricity regulator. We seek updates on this matter.

Response by Mr. Le Minh Duc, Director, Center for Electricity Market Development & Workforce Training, ERAV

- Circular 16/2017, implementing the Prime Minister Decision 11, does have some similar mechanisms.
- Regarding concerns about the net-metering scheme, ERAV and lead agencies have been tasked by the ministry leadership to create a draft guideline, and report to the Prime Minister to get permission for not applying the net-metering scheme, and instead doing it in ways that the user – electricity buyer from the Electricity authority – will pay directly the latter. The portion that is fed to the grid will be paid for directly by the Electricity regulator to the user, and there is no more net credit. This matter is still in a drafting phase now.

III. CONCLUSION

Mr. Nguyen Noi, Deputy Director, Foreign Investment Agency, MPI

- As discussed, some questions will need to be transferred to other relevant authorities for more detailed explanations.

- As related draft documents have been posted on the websites, we suggest investors/VBF spend time to read and comment on them, to avoid a situation where legislation is released and is found to be out of touch with investors' needs. A meeting will be held in the near future if needed.

LIST OF VBF PARTICIPANTS

No	Name	Title	Organisation/ Company
Government			
1.	Mr. Nguyen Noi	Deputy Director	Foreign Investment Agency, MPI
2.	Mr. Pham Quang Huy	Vice Director	Electricity Regulatory Authority of Vietnam, MOIT
3.	Mr. Le Minh Duc	Director of Center for Electricity Market Development & Workforce Training	ERAV
4.	Mr. Nguyen The Thanh	Officer, Power Tariff Department	ERAV
5.	Mr. Vu Xuan Huong	Officer, Policy Division	FIA, MPI
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6.	John Rockhold	Head of VBF Power & Energy Working G	Executive Director, AmCham Vietnam (HCMC Chapter)
7.	Shiro Muto	Member of Executive Committee	JCCI
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