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VIETNAM –SOLAR POWER PROJECTS: HOW TO GET DEALS DONE

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AGENDA

- **ENERGY SECTOR OVERVIEW**
- **POTENTIAL OF RENEWABLE ENERGY IN VIETNAM**
- **CURRENT GOVERNMENT'S POLICIES ON SOLAR ENERGY**
- **INVESTMENT GUIDELINES FOR FOREIGN INVESTORS**
- **RECOMMENDATIONS**

Energy Sector Background

- The Institute of Energy has calculated that commercial electricity will reach 491 billion kWh by 2030, and 877 billion kWh by 2045
- By 2030, the total installed capacity of Vietnam's electricity sources is predicted to be at 137.2 GW, of which **renewable energy: 29%**
- Total investment capital for electricity development in the period 2021-2030 is roughly USD 128.3 billion USD, of which: USD 95.4 billion for the power sources, USD 32.9 billion for the grids. The average structure of capital investment shall be 74% / 26%.



CURRENT GOVERNMENT'S POLICIES ON SOLAR ENERGY



Solar energy projects overview

- By the end of 2020, the total solar power capacity (including floating) put into operation was about 17 GW, concentrated in the southern provinces and the Central Highlands.
- Transmission grids are not enough in quantity, especially in the South, to accommodate the increasing number of solar power projects. As a result, most projects that have come into operation in those localities are being subjected to daily decrease in generating capacity to avoid overloading the regional grid.
- Binh Thuan and Ninh Thuan are top 2 provinces where projects are being applied for inclusion in the power master plan (136 projects out of 342 projects in the whole Vietnam as of 2019). This is due to the provinces' geographical advantage of having the most sunlight rate during the year in Vietnam

Investors must bid to develop solar power projects soon

- No FiT rate applicable for project with COD from 1 January 2021 onwards.
- In late January 2021, the Ministry of Industry and Trade proposed the implementation of bidding to select investors for solar power projects. Under MOIT's draft, the mechanism would be applicable to projects with grids connected directly to the national power network.
- Once the Draft comes into effect, the Feed-in tariff (FiT) mechanism will no longer apply to solar energy projects. The employment of bidding method will enable for the selection of capable developers through transparent procedures in order to eliminate projects that run behind schedule for years
- Every 02 years, the Ministry of Industry and Trade shall issue a Price Framework for electricity generation in order to determine the ceiling price for bidding of projects with COD in the next 02 years.

DIRECT POWER PURCHASE AGREEMENT IS UNDER WAY

- Under MOIT's proposal, consumers can directly negotiate, purchase electricity with GENCO under a Fixed-term Contract.
- The pilot is to be implemented nationwide with a total capacity of selected projects of 1,000 MW at max. The nominal capacity of each project must be 30 MW (conversion rate for solar plants: 01 MW_p equals 0.8 MW).
- The project must be already included in the National Power Development Plan and the developer must already have a binding principle agreement with a consumer to sell electricity.

BENEFITS OF DPPA MECHANISM

- ✓ Impose take-or-pay obligation on off-takers thus guarantee developer's revenue stream
- ✓ Fixed electricity purchase price regardless of status of national legislation
- ✓ Flexible calculation of monthly exchange rate
- ✓ Increase consumer's environmental commitments (since only consumers with renewable energy usage commitments can participate in the pilot program)

DIRECT POWER PURCHASE AGREEMENT

Selection criteria for electricity generators to join the pilot scheme:

- have a committed COD deadline of the whole power plant of no more than 270 working days since the date of announcement on the plant being selected to participate in the pilot implementation; or
- have written document of financial institutions on the financing for the power plant.

GENCO must submit a bid to the System and Market Operator for the direct purchase and payment of electricity with the energy buyer.

Rooftop Solar Power Projects

Electricity Buyer can either be:

- (i) Electricity Vietnam (EVN) or an authorized representative of EVN; or
- (ii) *In case the RTS system is not connected to EVN's power grids:* organizations, individuals purchasing electricity from the Seller/RTS developer or an authorized representative of such organizations and individuals.

In case the Buyer is EVN, the Seller and Buyer must sign the standard Power Purchase Agreement (“PPA”) unless agreed otherwise.

Seller and other independent Buyers can discuss and agree on the order of implementation, installation, connection and maintenance as well as electricity purchase price by themselves in accordance with Vietnam laws.

Investment guideline for foreign investors



Market access and Forms of investment

- No foreign ownership restriction
- Investment forms:
 - ✓ A wholly-owned foreign enterprise
 - ✓ A joint venture company between a foreign investor and domestic investor
 - ✓ Investment pursuant to the BOT legal framework
 - ✓ Through the purchase of shares in either an EVN subsidiary being or having been equitized or a private IPP holding power assets.



RECOMMENDATIONS FOR INVESTORS

- Public private partnerships (e.g. - BOT) should be the first option.
- Due care on negotiations of the PPA and grid connection agreement with EVN
- Electricity selling in off-grid areas can be a good choice
- Sound financing structure, good business model and great legal assistance are keys to success.
- Accurate prediction of where the market is heading to, in the context of Vietnam's critical power shortage, should be considered.
- More pressure on the government to adequately address key issues on tariff increase, demonopolization of the power market and government guarantee.
- Vietnam's market is extremely in need of financing and EPC capability. There are rooms for cost-effective and high quality EPC contractors and resourceful lenders.
- In many cases, you can “test the water” with a small power plant project.

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Thank you very much!

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