

DuaneMorris

HOW TO DEVELOP SOLAR PROJETS IN VIETNAM?

DR. OLIVER MASSMANN

Partner, General Director

DUANE MORRIS VIETNAM LLC

©2010 Duane Morris LLP. All Rights Reserved. Duane Morris is a registered service mark of Duane Morris LLP.

Duane Morris – Firm and Affiliate Offices | New York | London | Singapore | Los Angeles | Chicago | Houston | Hanoi | Philadelphia | San Diego | San Francisco | Baltimore | Boston | Washington, D.C.
Las Vegas | Atlanta | Miami | Pittsburgh | Newark | Boca Raton | Wilmington | Cherry Hill | Princeton | Lake Tahoe | Ho Chi Minh City | Duane Morris LLP – A Delaware limited liability partnership

AGENDA

- **BACKGROUND OF SOLAR ENERGY INDUSTRY IN VIETNAM**
- **REGULATORY FRAMEWORK ON SOLAR ENERGY**
- **LATEST DEVELOPMENTS IN VIETNAM'S SOLAR MARKET**

Energy Sector Background

- Electricity demand is expected to increase by up to 11.4 pct. for the 2016-2020 period and 7 times to 800 billion Kwh in 2030
- Electricity consumption is projected to increase from 85,932 gigawatt hours (GWh) in 2010 to 251,763 GWh in 2020



POTENTIAL OF SOLAR ENERGY INDUSTRY IN VIETNAM

- Total number of sunshine hours up to 1400 – 3000 hours/year
- Potential: 4-6 kWh/m²
- Current use: 5 MW



REGULATORY FRAMEWORK ON SOLAR ENERGY



- Electricity Law 2004 and 2012
- The Revised Power Development Plan 2011-2020 (revised PDP VII) approved by Prime Minister in Decision 428/QD-TTg dated 18 March 2016
- Decision 2068/QD-TTg dated 25 November 2015 on development strategy and vision of RE to 2050.
- Decision 11/2017/QD-TTg dated 11 April 2017 by the PM on support mechanism for development of solar power projects in Vietnam
- Circular 16/2017/TT-BCT dated 12 September 2017 setting out requirements on protect development and template PPA for solar power projects

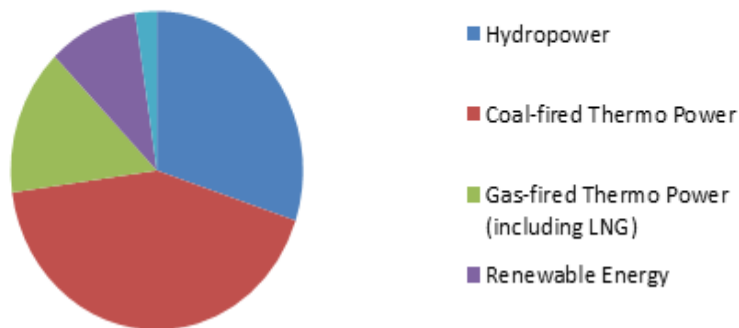
Amended Power Master Plan VII

- State to keep monopoly on transmission
- Prioritize development of renewable energy
- Renewable energy target rate at 7 pct. of total energy output by 2020 and more than 10 pct. by 2030.
- Increase the solar power output to 850 MW by 2020, 4,000 MW in 2025 and 12,000 MW in 2030.

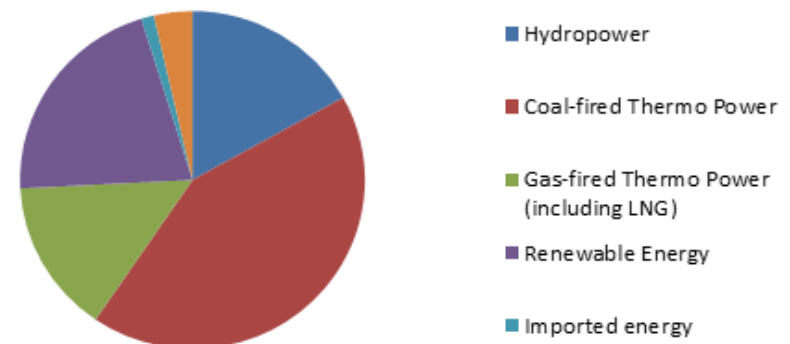
Vietnam's electrical energy mix

- Vietnam policy emphasises the need to diversify the country's energy mix whilst maximising the use of local energy reserves
- Currently Vietnam is developing an energy mix sector with the mainstay of coal fired power

By 2020 - Total Capacity to be 60,000 MW



By 2030 - Total Capacity to be 129,500 MW



Coal production – World Bank no longer supports???



Latest developments in Vietnam's solar market

- About 120 solar projects have been approved by the MOIT with total capacity of over 4,700 MW (September 2018)
- 35 PPAs signed with the total capacity of approximately 2.271 MW (September 2018)
- Vietnam would increase its electricity production from renewable sources from about 58 billion kWh in 2015 to 101 billion kWh by 2020 and 186 billion kWh by 2030.
- Vietnam now plans to increase solar power consumption in households by 26% by 2030.

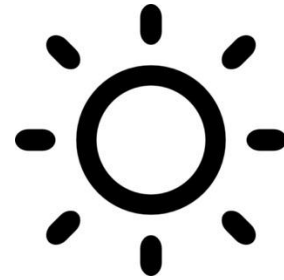
Latest developments in Vietnam's solar market (cont.)

- The Government will issue **NEW FIT** price (estimated at 7 – 7.5US cents/kWh) and **NEW PPA** that can be used for projects after 30 June 2019.
- The Government is now also working on a Competition Auction System that may be completed at around the 2020. The **NEW FIT** price is to be applied until this Competition Auction System is completed.

Latest developments in Vietnam's solar market (cont.)

- Family households now can install the rooftop solar energy system for family use and then can sell the unused amount of electricity of EVN. EVN will install free electricity meter for family households.
- As for the time being, MOF still has not finalized the tax relevant issues for the above structure, family households now still have to pay their monthly electricity bill after installing the rooftop solar energy system (that cost minimum of USD3,000) and then at the end of the year EVN will calculate and make payment to the family households.

Solar Decision



- FIT:
 - On-grid projects: 9.35 US cents/kWh.
 - No FIT for off-grid rooftop projects
 - Only one off-taker (EVN) and No direct PPA (B2B)
 - The FIT applies for projects which come into operation before 30 June 2019 and within 20 years from the commercially operational date (“COD”) (*i.e.*, the date when the solar plant is ready to sell electricity to the buyer – EVN)
 - The FIT COD will likely be extended **for another half a year or another year** for solar projects across Vietnam, except for projects in Ninh Thuan
 - For solar projects in Ninh Thuan, the COD deadline extension will be longer (*i.e.* **until end of 2020**).
- **Net metering:** applicable for rooftop projects. Oversupply amount will be credited to the following month. At the end of the year or expiry of the PPA, exceeded amount will be sold to EVN at 9.35 US cents/ kWh.

Solar power financial incentives

- Preferential CIT:
 - Preferential corporate income tax (“CIT”) rate of 10% for fifteen (15) years, applied from the first year in which the project company has revenue from the new solar power project
 - CIT exemption for four (4) years and 50% tax reduction for the next nine (9) years applied from the first year in which the project company has taxable income from the solar power project.
- Duty Exemption:
 - Import duty exemption for imported goods used as fixed assets
 - Import duty exemption for imported machinery, equipment, supplies that cannot be domestically produced serving production of renewable energy

Solar power financial incentive (Cont.)

- Land and Water Surface:
 - For solar power projects, transmission lines and transformer stations for connecting to electricity grids
 - Land and water surface rent shall be exempted during the fundamental (capital) construction period. This exemption does not exceed three (3) years from the effective date of competent state authorities' decisions for land lease / allocation
 - After the above fundamental construction period, the land rents and water surface rents shall be exempted for three (3) years

Solar PPA

- **Non-negotiable PPA** and compulsory application for grid connected solar projects
- EVN has the obligation to buy all electricity generated from solar power projects. However, in the Solar PPA, EVN may stop buying electricity in certain circumstances beyond the reasonable control of the seller, without any compensation or payments to the seller/project developer.
- The purchaser must pay the seller only for the electricity that is received by the purchaser. The Solar PPA does not include any provision where the purchaser is unable to take the electricity produced.
- Dispute resolution: by litigation before Vietnamese courts or mediation/resolution at authorized energy state authorities of Vietnam. **No international arbitration is mentioned!**

Back up from the Government re. the PPA

- In the recent concluded wind PPAs, the Government subsidizes EVN 1 US cent/ kWh with regards to the whole power output sold to EVN
- This subsidy no longer exists in the Solar Decision.
- Solar PPA: no provision on any form of government guarantee to enhance the creditability of EVN
- No hint to make the solar PPA bankable.

The EVN

- PPA is required to follow a specific template, which is not bankable.
- The PPA template is unclear whether it is a “take or pay” agreement.
- No amendment of the PPA template is possible, except the supplementation to clarify the rights and obligations of the parties, **PROVIDED** that it does not change the basic contents of the PPA template.

Direct solar PPA

- The Government in practice does not support off-grid projects.
- The Government is working on a pilot program for direct PPA. However, it is still at the research and study stage.
- There is no final decisions on capacity, licensing process, participants, location, wheeling fee, and contractual terms for the piloted DPPA
- DPPA pilot would be preferably designed for 110 KV or more system (not 220 KV or 22-25 KV)
- ERAV is considering some models as below:
 - ❑ Physical DPPA: (a) onsite DPPA where the power plants to be constructed around the consumers, and / or (ii) offshore DPPA where power plants to be constructed anywhere.
 - ❑ Financial DPPA: this would be formed with competitive market for selling power.

But don't worry! We have the EU – Vietnam FTA and CPTPP

- EU – Vietnam FTA (“EVFTA”) and the Investment Protection Agreement (“IPA”):
 - When EVFTA is ratified, Vietnam will have more legal certainty than even Germany.
 - IPA implements **investor-to-state dispute settlement** (ISDS) mechanisms – investors can claim in case that an investor protection obligation has been breached
 - Domestic courts cannot question the legal validity of the decisions
- Comprehensive and Progressive Agreement for the Trans-Pacific Partnership (CPTPP):
 - TPP continues without the US, to be signed on 08 March 2018.
 - New TPP accounts for 12.9% of global GDP and 14.9% of global trade.
 - Vietnam to ratify the CPTPP in November, becoming the 4th country to ratify the deal

Non-recourse financing

- **What is it?** The Project can be financed with a loan secured by a charge on specific assets or on the revenues generated from a specific project or assets.
- **How to obtain?**
- ✓ **Option 1:** To develop the project by way of entering into a BOT (Build-Operate-Transfer) contract with the Government. As it is the Government who will own the project at the end upon the expiration of the BOT contract, the BOT contract will be more bankable → the non-recourse/limited recourse financing arrangement can be achievable.
- ✓ **Option 2:** To seek guarantee from the Multilateral Investment Guarantee Agency (“MIGA”).
- ✓ **Option 3:** To cooperate with a State-owned commercial bank for its guarantee of the project and then, negotiate with lenders to eliminate all recourses that lenders may ask from the sponsors and/or the borrowers.

Investment guideline for foreign investors



WTO ANALYSIS OF LIBERALIZATION OF MARKET ACCESS

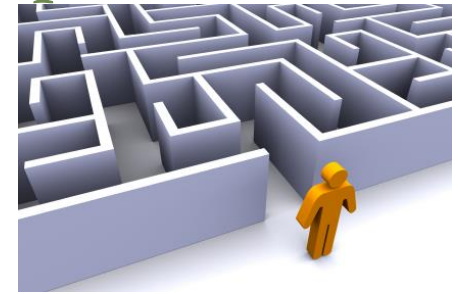
Vietnam ties in first place with Singapore

Country	Limitation of market access*	Country	Limitation of market access*
Malaysia	medium	Myanmar	high
Indonesia	medium	Cambodia	medium
Philippines	medium	Laos	medium
Singapore	low	India	high
Thailand	medium	China	medium
Brunei	high	Vietnam	low

- ***Typical restrictions: number of opened sectors, JV requirement, limits on foreign-owned shares, permission requirement**

Market access and Forms of investment in power market

- 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.



BOT – BEST INVESTMENT FORM

- Government's Decree No. 63/2018/ND-CP on Public-Private Partnership: making projects more bankable
- Easier to negotiate more favorable electricity rates.
- Easier to obtain more government guarantees, especially in terms of EVN's obligations to purchase all electricity from the project.
- More fiscal and financial incentives.
- Precedent large-scaled BOT power projects in Vietnam: Phu My, Vung Ang, Mong Duong 2

Project planning

- Investors has to obtain prior agreement of EVN on power purchase prior to licensing procedure.
- Commitment of banks or credit institutions on financing the project must be obtained prior to issuance of Investment Registration Certificate .
- In-principle approval of the local People's Committee is required prior to issuance of Investment Registration Certificate depending on the project size
- A solar power plant must obtain a power generation permit from the competent State authorities in order to conduct power generation operations in Vietnam
- Term of the permit: maximum 20 years for large power plants with particularly important meaning on economy, society, national defense and security as per the list approved by the Prime Minister; and 10 years for other power plants projects.
- The permit cannot be renewed but the investor may apply for a new one within 60 days prior to the expiry date of the current permit.

Project licensing

- **Step 1:** The investor obtains approval from the competent authority [e.g., Prime Minister, MOIT] approving the solar power plant as part of the power development master plan (if required).
- **Step 2:** The investor obtains in-principle approval from the competent People's Committee (or other competent authorities subject to the details of the project) approving the solar power plant project, land demand / location, environment, construction plan, other terms of the project.
- **Step 3:** Application for issuance of the Investment Registration Certificate and the Enterprise Registration Certificate
- **Step 4:** Preparation of construction / operations of the solar power plant (for example, acquiring land area, site clearance, preparation, land investigation, conducting environmental assessment)
- **Step 5:** The project company to obtain necessary permits (e.g. electricity generating permit) and relevant agreements (e.g. PPA) for its and the power plant's operation.
- **Step 6:** Construction of solar power plant and operation



**CONNECTIONS ARE BUSINESS
PLEASE CONNECT WITH ME ON
LINKEDIN:
OLIVER MASSMANN**

WHEREVER YOU ARE - BE ALL THERE

Jim Elliot

DUANE MORRIS VIETNAM LLC

Thank you very much!

HANOI OFFICE

**Pacific Place, Unit V1307/08, 13th Floor,
83B Ly Thuong Kiet, Hoan Kiem District
Hanoi, Vietnam**

Tel.: +84 4 39462200

Fax: +84 4 3946 1311

HO CHI MINH CITY OFFICE

**Suite 1503/04, Saigon Tower
29 Le Duan Street, District 1
Ho Chi Minh City, Vietnam**

Tel.: +84 8 3824 0240

Fax: +84 8 3824 0241

Contact email:

omassmann@duanemorris.com

References (1)



International Consulting & Trading Services Ltd.,

Hanoi, 15th October 2015

To Whom It May Concern

Recommendation of Excellent Services of Mr. Oliver Massmann

I am Managing Director of International Consulting and Trading Services Ltd, a company registered in British Virgin Islands with operations based from our Hanoi Representative office. Over 15 years we have assisted many international overseas suppliers, from a wide range of industries, to identify markets and thereafter representing their interests to secure ongoing business here in Vietnam. The majority of our clients are based in Asia, Eastern and Western Europe.

While we endeavour to enforce our contractual rights, this is – unfortunately – not always possible. In this regard, we would like to highlight our satisfaction with the highly professional services rendered by Mr. Oliver Massmann of Duane Morris LLC, Hanoi, who successfully represented us and settled a defaulted payment, due to us for services provided to an international German company.

We would further note that Mr. Massmann’s successful handling of the case exceeded our expectations since he achieved a settlement without the need for costly arbitration in the courts of Vienna.

Mr. Massmann’s capability in legal analysis and his commercial aptitude combined with his exceptional negotiation skills, led to a timely and efficient resolution of the dispute at hand. Of course being German himself was also a significant contributing factor, since he was able to tease out information from the opposing German lawyer, giving him a winning hand.

Mr. Massmann has demonstrated to us his capability as a real problem solver. We regard him and his team at Duane Morris LLC as an excellent choice for dispute resolution services and would not hesitate to entrust them with further work.



Michael Anthony Langrish-Smith
Managing Director

Registered office: Trident Chambers, P.O Box 146, Road Town, Tortola, British Virgin Islands (No. 395663)
Representative Office: Suite 201.1, No. 5 To Ngoc Van Road, Quang An Tay Ho District, Hanoi, Vietnam
Tel: +84 4 37183112 Fax: +84 4 37183113 Email: incontrasco@fpt.vn

References (2)



I am Andrew Meyer, CEO of Nine Dragons Group LLC. We have been actively involved in Vietnam Real Estate since 1999. We have gone through many lawyers and law firms, and were disappointed by all of them. Lack of knowledge of the laws, the differences between buying and selling in specific cities, very slow response time and poor client service.

Finally, we met Mr. Oliver Massmann. The first project we did with him was the same as working with our attorneys in NYC. He has a very strong knowledge of the laws, procedures and intricacies of Vietnam. Speaks the language fluently (a rarity) and is a consummate professional who responds to my requests very quickly.

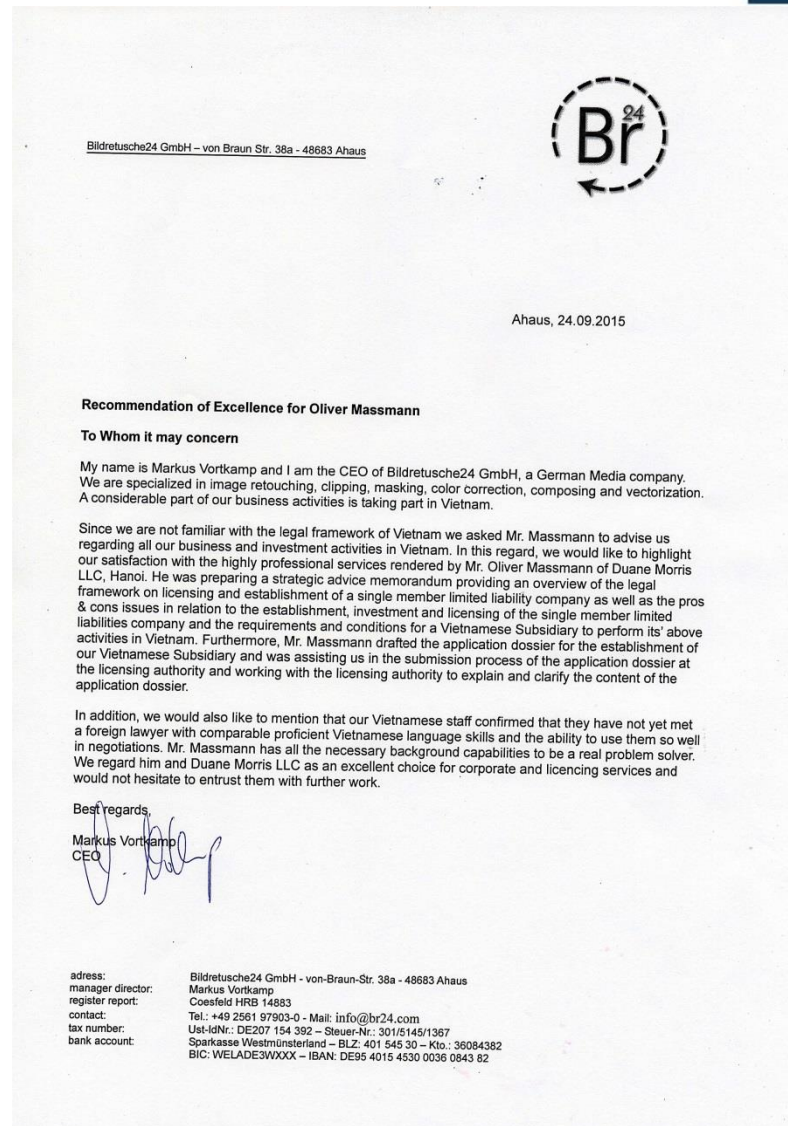
We continue to work with Mr. Oliver Massmann and are thrilled to have an attorney who brings so much to the table working on our team.

I highly recommend Mr. Oliver Massmann and his firm, Duane Morris Vietnam LLC. Should you have any questions, please feel free to contract me at any time.

Andrew Meyer

CEO

References (3)



References (4)



Hong Kong, 01 Jan 2015

To Whom It May Concern

My name is Thomas Domanski and I am Managing Director of Bauer Hong Kong Ltd shareholder of Bauer Vietnam Ltd). Bauer Hong Kong Ltd is a member of the German based Bauer Group of Companies and a subsidiary of the Bauer Spezialtiefbau GmbH which belongs to the MDax listed ultimate holding company Bauer AG. The Bauer Group is specialized in foundation engineering, machinery, and Resources related services. A considerable part of Bauer Group's corporate activities takes place in Asian countries, among them Vietnam.

While we try our utmost to avoid entering into legal proceedings to enforce contractual rights, this is – unfortunately – not always possible. In this regard, we would like to highlight our satisfaction with the highly professional services rendered by Mr. Oliver Massmann of Duane Morris LLC, Hanoi, who successfully represented Bauer in Singapore (SIAC) based arbitration proceeding concerning a dispute about payment for construction works provided by Bauer in Vietnam.

We would like to note that Mr. Massmann's handling of the case significantly contributed to the successful conclusion of the case out of court/Arbitration. Mr. Massmann's services combined thorough legal analysis with a strong commercial approach, lead to a timely and efficient resolution of the dispute at hand. In addition, we would also like to mention that our Vietnamese staff confirmed that they have not yet met a foreign lawyer with comparably proficient Vietnamese language skills and the ability to use them professionally in negotiations. Mr. Massmann has proven himself to be capable to use local knowledge paired with legal competence to resolve disputes in an efficient manner. We regard him and Duane Morris LLC as an excellent choice for dispute resolution services and would not hesitate to entrust him with further work.

Best regards

Thomas Domanski
Managing Director

HEAD OFFICE
BAUER Spezialtiefbau GmbH
D-86522 Schrobenhausen, P.O.Box 1260
Germany
Tel.: +49 8252 97 0
Fax: +49 8252 97-1359
www.bauer.de

HONG KONG
BAUER Hong Kong Ltd.
Units 1604-d, 16th Floor
Chinachem Tszan Wan Plaza
455-457 Castle Peak Road
Tszan Wan, New Territories
Hong Kong
Tel.: +852 2430 9928
Fax: +852 2430 9768
info@bauerhk.com.hk

MALAYSIA
BAUER Malaysia Sdn. Bhd.
Unit 506, Bk. 5, Peko Damansara 1
No. 5, Jln 10/11, Off. Jln Damansara
46350 Petaling Jaya
Selangor Darul Ehsan
Malaysia
Tel.: +60 3-7956 9366
Fax: +60 3-7956 8580
info@bauer.com.my



ISO9001:2008
Cert. No. KLR 0404051 C