

VIETNAM RENEWABLE ENERGY REPORT

JANUARY 2021

Prepared by British Chamber
of Commerce Vietnam



**British
Chambers of
Commerce**

International Affiliate

BritCham HCMC Office

25 Le Duan, Ben Nghe Ward,
District 1, Ho Chi Minh City
T: +84 28 3829 8430 (Ext. 122)
E: enquiries@britchamvn.com

BritCham Hanoi Office

4th Flr, Belvedere Building, 28A Tran
Hung Dao, Hoan Kiem, Hanoi
T: +84 24 3633 0244
E: enquiries@britchamvn.com

OUR TEAM

MARKETING & COMMUNICATIONS EXECUTIVE

Nhi Nguyen



TRADE SERVICES EXECUTIVE

Tuan Thieu



DEPUTY DIRECTOR

An Doan



BUSINESS SERVICES MANAGER

Truc Doan



FINANCE & HR LEAD

Minh Pham



EXECUTIVE DIRECTOR

Brian Bulloch



what we do ?

The British Chamber of Commerce Vietnam (BritCham Vietnam) was officially established in Ho Chi Minh in 1998 with its Ha Noi branch founded in 2007. BritCham Vietnam aims to support and develop Vietnam-UK business links while raising the profile of Vietnam in the British business community and vice versa. As an accredited British Chamber, BritCham Vietnam in association with the Department for International Trade (DIT), is committed to promote strong business links between Vietnam and the UK.



BUSINESS MATCHING:

Partner search and one-to-one meetings with potential clients, agents/distributors or outsourcing partners



BUSINESS DEVELOPMENT REPRESENTATIVE:

Provide a professional business development representative to act locally on your behalf, strengthen existing engagements with the Vietnam market on a long term basis and develop further business relationships within the market.



INWARD INVESTMENT FACILITATION:

Business Registration, Site Selection, Factory/Office Set-up & Operations Support, HR & Financial Management



BUSINESS SERVICES EVENTS:

Organise trade missions, product launches and seminars/workshops



MARKET STUDIES:

Sector reports, competitor analysis and local prospect background research



EXPORT OPPORTUNITIES:

Explore your export opportunities to Vietnam through DIT's portal opportunities.export.great.gov.uk



WEBINARS:

Online dialogues with experts within industries to forecast new trends in doing business in Vietnam



BACK-OFFICE SUPPORTS

Due Diligence, Marketing Materials & Company Documents Translation, Vietnam Entry Services

CONTACT US

BritCham Vietnam

W: www.britchamvn.com

F: www.facebook.com/britchamvn

T: www.twitter.com/britchamvn

Li: www.linkedin.com/company/britchamvietnam/

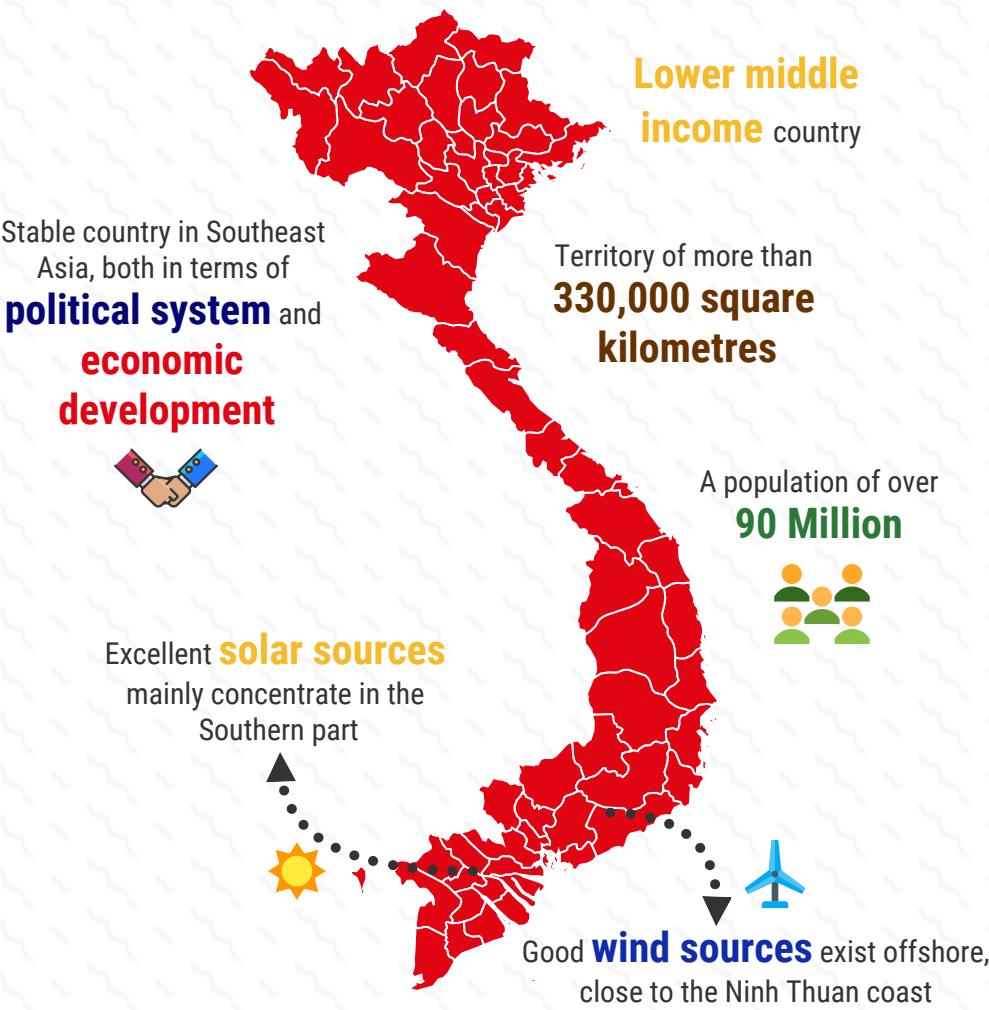
E: enquiries@britchamvn.com

OVERVIEW

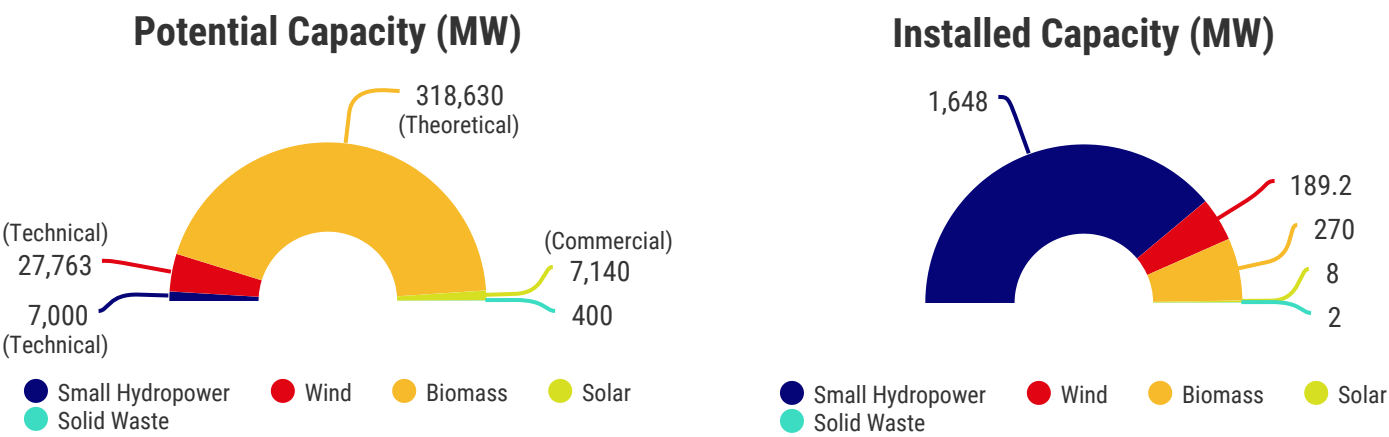
OVERALL SECTOR CONTEXT



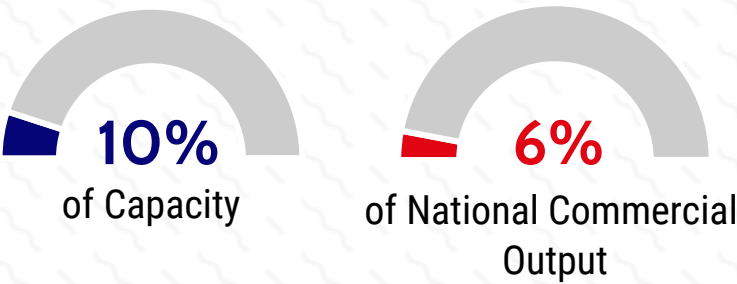
Renewable Energy Sector in Vietnam is **one of the most vibrant** in Southeast Asia



RENEWABLE ENERGY VIETNAM'S POTENTIAL



Renewable Energy contributes **over 3 Billion kWh** per month

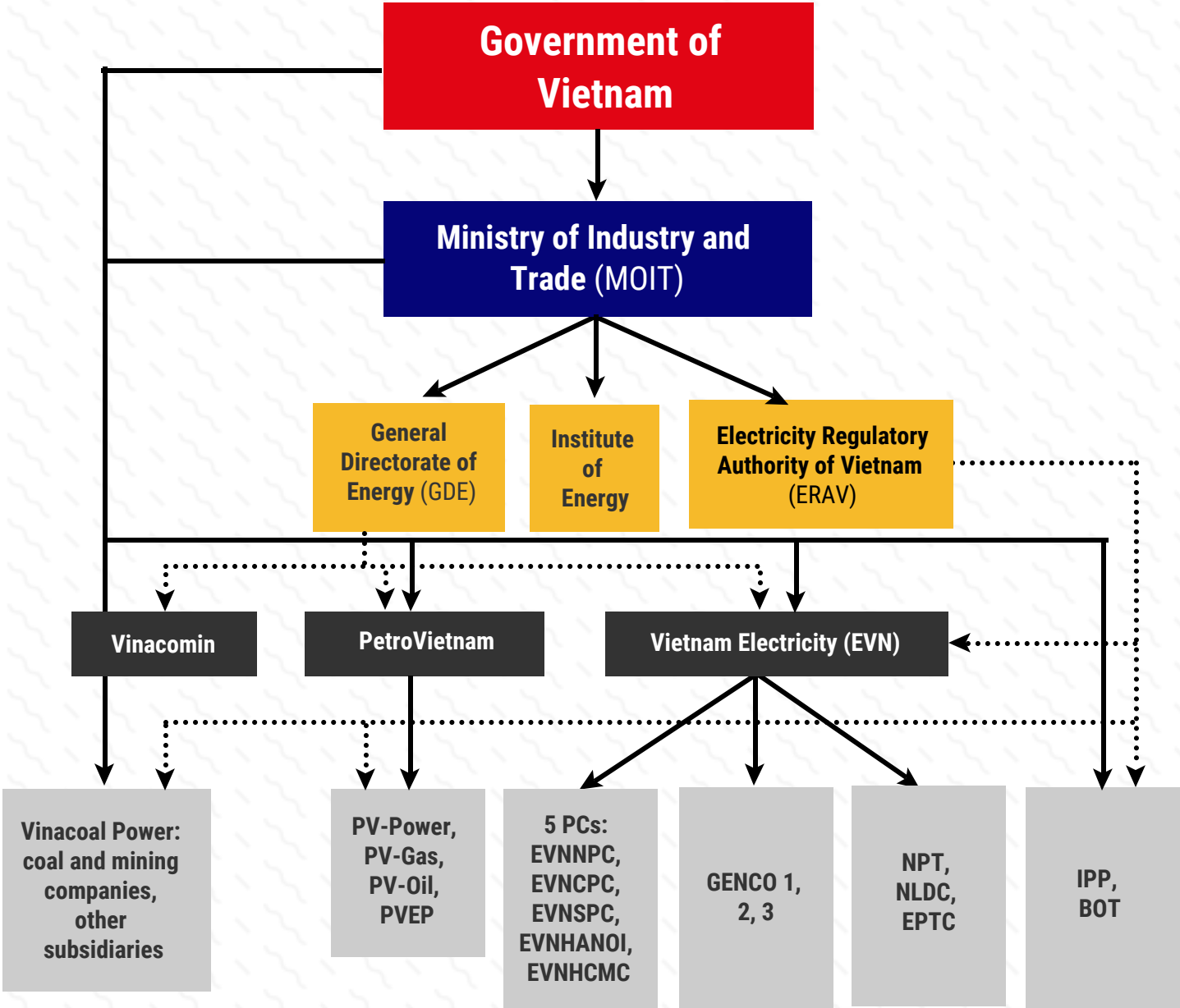


Rankings for Renewable Energy generation of Vietnam



OVERVIEW

ORGANISATION OF VIETNAM ENERGY SECTOR



PetroVietnam Power (PV-Power)
PetroVietnam Gas Corporation (PV-Gas)
PetroVietnam Oil Corporation (PV-Oil)
PetroVietnam Exploration Production Corporation (PVEP)

Power Corporations (PCs)
Northern Power Corporation (EVNNPC)
Central Power Corporation (EVNCPC)
Southern Power Corporation (EVNSPC)
Ha Noi Power Corporation (EVNHANOI)
Ho Chi Minh City Power Corporation (EVNHCMC)

Power Generation Corporation (GENCO)

National Power Transmission Corporation (NPT)
National Load Dispatch Center (NLDC)
Electric Power Trading Company (EPTC)

Independent Power Producers (IPP)
Build-Operate-Transfer (BOT)



VIETNAMESE LEGISLATION ON RENEWABLE ENERGY



The Government has also issued **many mechanisms and policies** to encourage the development of Renewable Energy sources, which have also created conditions for thousands of domestic and foreign investors and enterprises to engage in the market.



ON WIND ENERGY

Decision No. 37/2011/QĐ-TTg

(issued on 29 June 2011, and effective as of 20 August 2011)

Decision No. 39/2018/QĐ-TTg

(issued on 10 September 2018, and effective as of 1 November 2018)

Circular No. 02/2019/TT-BCT

(issued on 15 January 2019, and effective as of 28 February 2019)

ON SOLAR POWER

Decision No. 13/2020/QĐ-TTg

(issued on 6 April 2020, and effective as of 22 May 2020)



ON SOLID-WASTE POWER

Decision No. 31/2014/QĐ-TTg

(issued on 5 May 2014, and effective as of 20 June 2014)

Circular No. 32/2015/TT-BCT

(issued on 8 October 2015, and effective as of 7 December 2015)

ON BIOMASS ENERGY

Decision No. 24/2014/QĐ-TTg

(issued on 24 March 2014, and effective as of 10 May 2014)

Decision No. 08/2020/QĐ-TTg

(issued on 5 March 2020, and effective as of 25 April 2020)

Circular No. 44/2015/TT-BCT

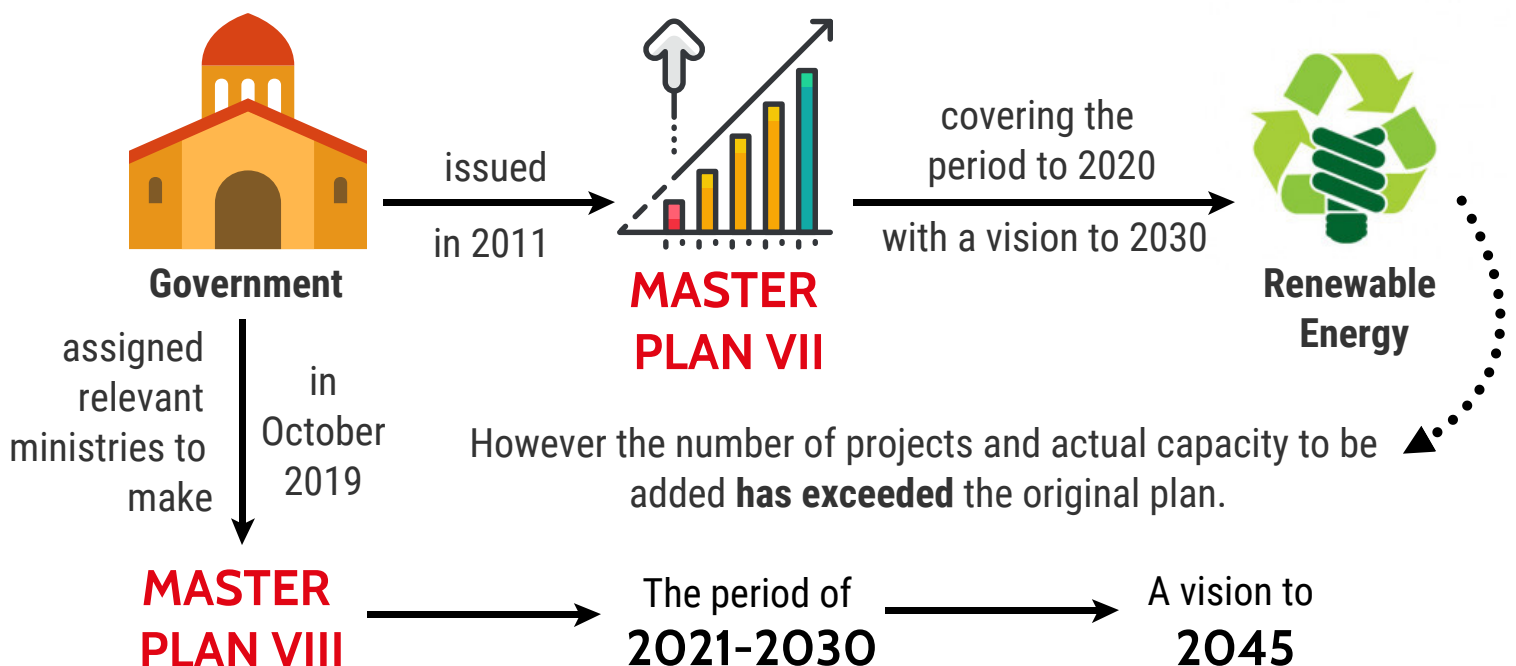
(issued on 9 December 2015, and effective as of 25 January 2016)

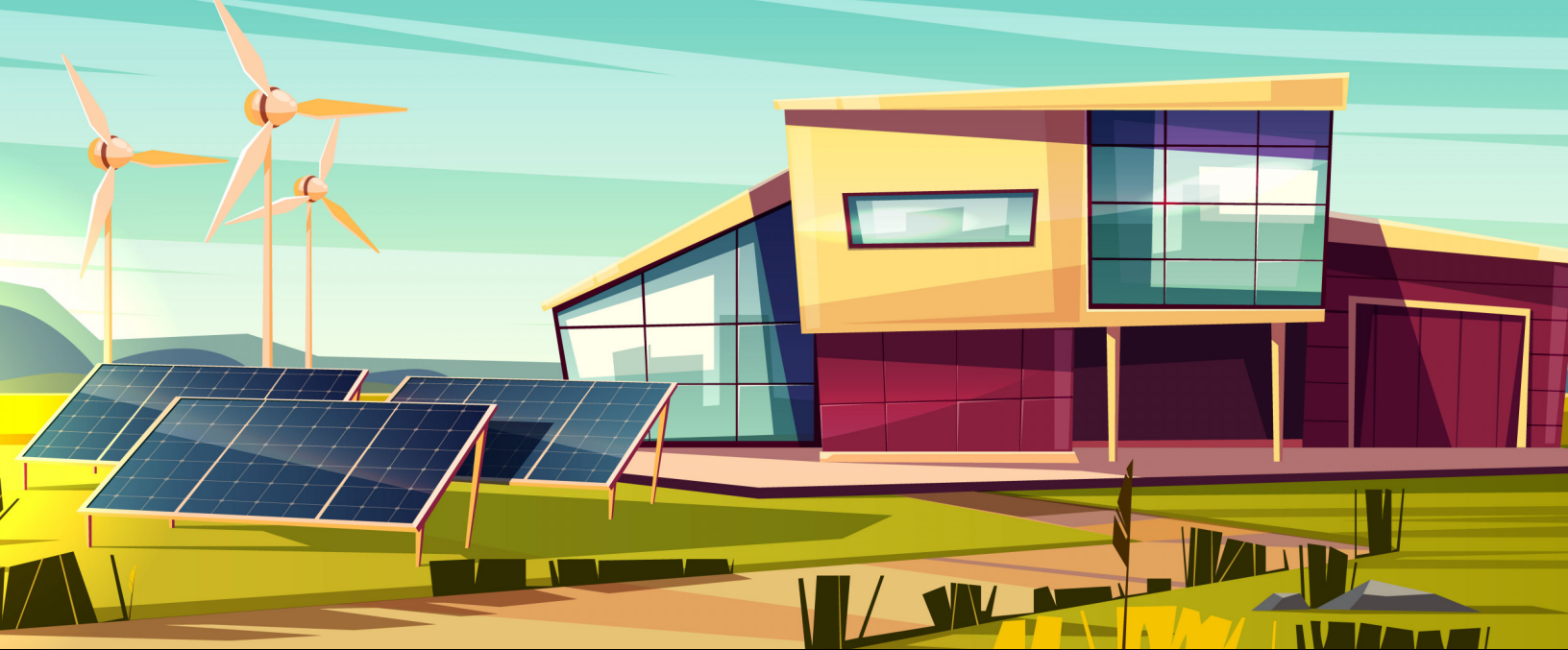
Circular No. 54/2018/TT-BCT

(issued on 25 December 2018, and effective as of 18 February 2019)



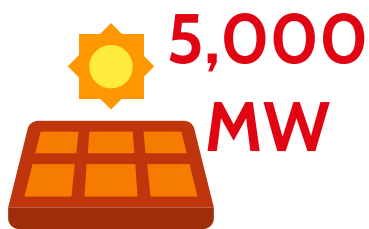
NATIONAL POWER DEVELOPMENT PLAN





VIETNAM CURRENT STATUS

SOLAR POWER



have already put into operation

5,000 MW



Rooftop solar power

over **31,570 projects**

a total capacity of **657.88 MW**



The grid-connected project is about



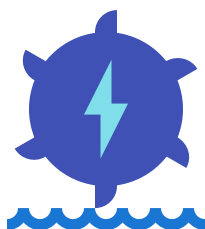
4,500 MW

According to data from Vietnam Electricity (EVN), **5,039MW** of **solar power & wind power** was generated for the national grid.

MEDIUM & LARGE HYDROPOWER

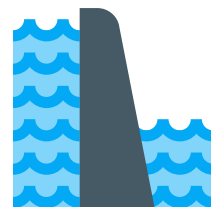
about **20,000 MW**

capacity potential have been almost fully utilised



SMALL HYDROPOWER

a total potential of **6700 MW**



more than **3,000 MW**

have already put into operation

BIOMASS POWER



a total technical potential of **7000 MW**

SOLID WASTE POWER

a total technical potential of **1,500 MW**



300 MW are utilised

RENEWABLE ENERGY PROJECTS

Some of **the largest projects** that have become operational or are under construction:



SOLAR POWER PROJECTS:



TRUNG NAM - THUAN NAM SOLAR FARM

Location: Central province of Ninh Thuan

Capacity: 450 MW

Investment: 12 trillion dong (\$517.75 million)

Status: Construction which started in March is scheduled to be completed by October.



PHU MY SOLAR FARM

Location: Central province of Binh Dinh

Capacity: 330 MW

Investment: 6.2 trillion dong (\$267.51 million)

Status: Under construction. Scheduled for completion by end-2020



HOA HOI SOLAR FARM

Location: Central province of Phu Yen

Capacity: 257 MW

Investment: 4.99 trillion dong (\$215.29 million)

Status: In operation since June 2019



DAU TIENG PV SOLAR POWER

Location: Southern province of Tay Ninh

Capacity: 410 MW

Investment: 11 trillion dong (\$474.59 million)

Status: In operation since June 2019



BIM SOLAR FARM

Location: Ninh Thuan province

Capacity: 330 MW

Investment: 7 trillion dong (\$302.01 million)

Status: In operation since April 2019



SAO MAI SOLAR FARM

Location: Southern province of An Giang

Capacity: 210 MW

Investment: 6 trillion dong (\$258.88 million)

Status: The first phase of 104 MW started power generation in July 2019. Construction of the second 106 MW phase began in September.

RENEWABLE ENERGY PROJECTS

WIND POWER PROJECTS:



TRUNG NAM WIND FARM (ONSHORE)

Location: Ninh Thuan province

Capacity: 151.95 MW

Investment: 4 trillion dong (\$172.58 million)

Status: Construction started in August 2016 and is scheduled to be completed by the fourth quarter this year.



QUOC VINH SOC TRANG WIND FARM (ONSHORE)

Location: Southern province of Soc Trang

Capacity: 129 MW

Investment: 5.32 trillion dong (\$229.54 million)

Status: Construction of the plant began in March. Its first phase of 30 MW is scheduled to start power generation in 2021.



HOA BINH WIND FARM (OFFSHORE)

Location: Southern province of Bac Lieu

Capacity: 100 MW

Investment: 5.22 trillion dong (\$225.22 million)

Status: Construction started in July and scheduled to be completed by November 2021.



BAC LIEU WIND FARM (OFFSHORE)

Location: Bac Lieu province

Capacity: 99.2 MW

Investment: 5 trillion dong (\$215.73 million)

Status: The first phase of the project started power generation in 2013 and the entire project from 2016.



HIEP THANH WIND FARM (ONSHORE)

Location: Southern province of Tra Vinh

Capacity: 78 MW

Investment: 3.37 trillion dong (\$145.40 million)

Status: Construction started in March. Its first turbine will start power generation early 2021 and the entire project by mid-2021.

FOREIGN INVESTMENT

- The Vietnamese Renewable Energy industry is appealing to foreign investors as **demand for electricity is high**.
- Moreover, Vietnam has adopted **flexible policies** for Renewable Energy in recent years, particularly **paying attention to the solar and wind energy projects** in the country.



FOREIGN INVESTMENT FORM

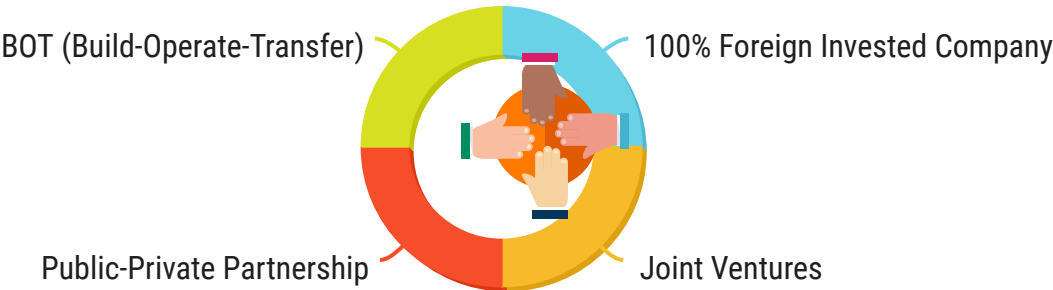


NO
Application
Form



Foreign investors can **own**
UP TO 100% of equity in power
projects

Foreign investors can **trade in different types**:



POWER PURCHASING AGREEMENT

The Power Purchasing Agreement (PPA) is **UNBANKABLE**
due to following reasons:



Fixed terms



Non negotiable



Fixed FiT
for **20 YEARS**



CANNOT take land
assets as securities



No international
arbitration



No stabilization
clause



Risk of connecting
the plant to grid



Credit **worthiness** of
Offtaker

FOREIGN INVESTMENT

PROJECT INVESTMENT PROCESS



Pre-Investment Stage



Conduct site study



Gather data and measurements



Prepare pre-feasibility study



Apply for inconclusion of the project in the PPA (if it has not been included)*

*usually projects over **50MW** must be approved by the Prime Minister and those under that threshold by the MOIT

Investment and Enterprise Registration



Obtain investment decision (normally from provincial People's Committee)



Investment Registration Certificate issued for project



Establish project company by obtaining Enterprise Registration Certificate



Make deposit (from 1% to 3% of project's required capital investmet)

Sign Relevant Agreements



- EVN's agreement in principle to purchase power
- Grid connection agreement
- Metering agreement
- SCADA/EMS (or SCADA/DMS) agreement
- Protective relay agreement
- Power Purchase Agreement with EVN

Land Lease



Negotiate and obtain policy agreement for project location



Land clearance (and relocation of/ compensation for existing land users) are undertaken



Sign land lease agreement – the lease term cannot exceed the project term and is likely to be around 20 years



Obtain Land Use Right Certificate

Construction



- Prepare feasibility study and designs
- Evaluate basic design/ feasibility study
- Evaluate technical design



- Obtain fire prevention and firefighting approval
- Conduct environmental impact assessment
- Obtain construction permit



- Carry out construction works
- Undertake commissioning & acceptance

Operation



Obtain electricity generation licence (for the power plant)



Obtain operating licence (for employees holding certain operating positions)

FOREIGN INVESTMENT

FEED-IN TARIFF RATES



FEED-IN TARIFF	20-year fixed FiT	one of the lowest in the world
SOLAR POWER	7.69 US cents/kWh for floating solar energy projects 7.09 US cents/kWh for ground-mounted solar energy projects 8.38 US cents/kWh for rooftop solar energy projects	
WIND POWER (COD* before November 1, 2021)	9.8 US cents/kWh for OFFSHORE wind projects 8.5 US cents/kWh for ONSHORE wind projects	
SMALL HYDROPOWER	5 US cents/kWh for subject to avoid costs regime	
BIOMASS	7.03 US cents/kWh for combined heat and power 8.47 US cents/kWh avoided cost tariff for other technologies	
SOLID DOMESTIC WASTE	10.05 US cents/kWh for waste incineration 7.28 US cents/kWh for combustion of landfill gas	

*COD: Commercial Operation Date

The Prime Minister issued **Decision No.13** to replace Decision No.11, which details the new FiT tariffs (as can be seen they are **significantly lower** than those under Decision No.11)

Due to the **Covid-19 pandemic**, to reach COD by the end of 2020 for FiT eligibility, developers may **need to quicken** the project timelines to meet the deadline.



GOVERNMENT INCENTIVES

Four key proclamations this year provide guidance on the role Renewable Energy could play in meeting demand growth:



MOIT Report No.2491

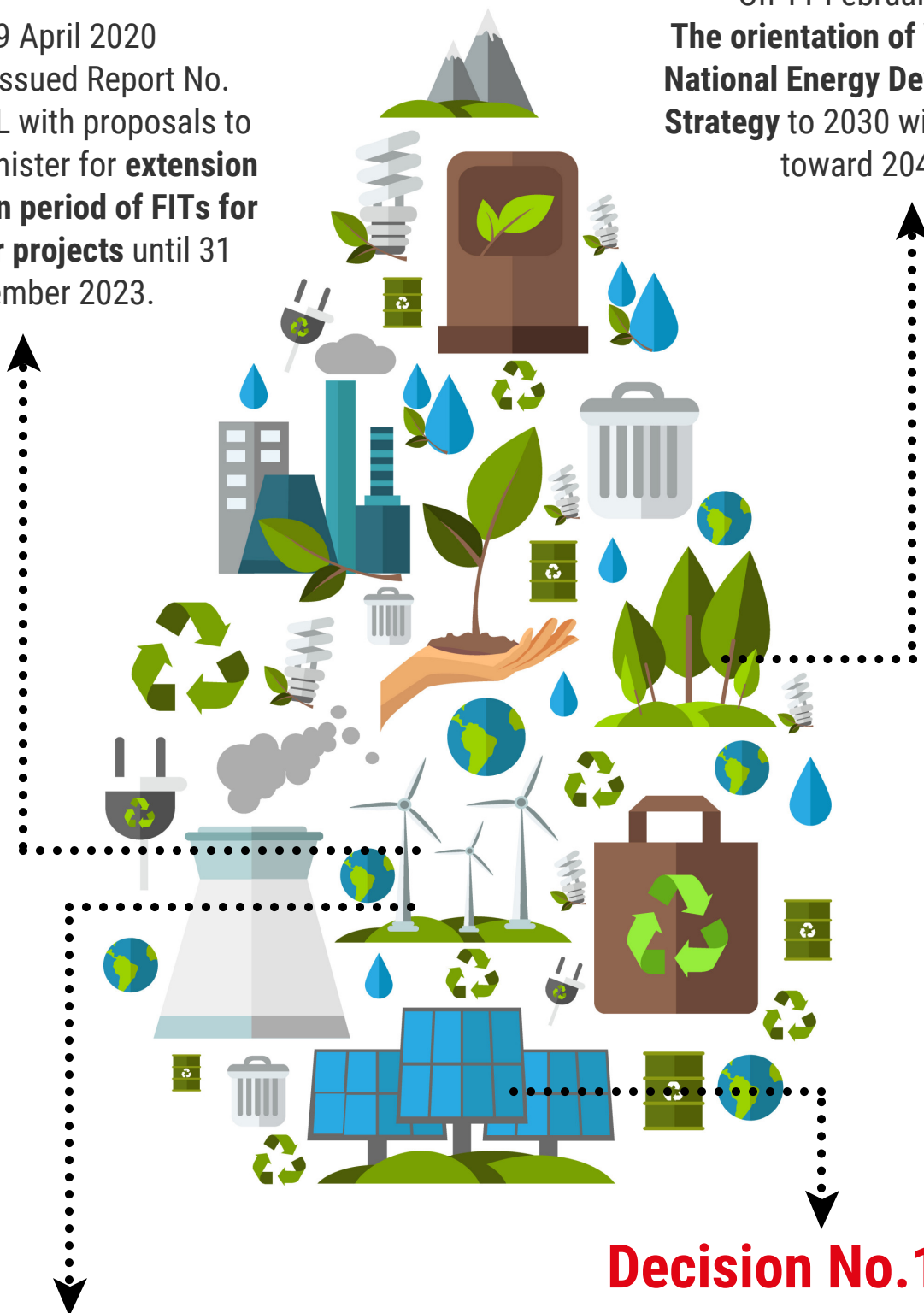
- On 9 April 2020

The MOIT issued Report No. 2491/BCT-DL with proposals to the Prime Minister for **extension of application period of FITs for wind power projects** until 31 December 2023.

Resolution No.55

- On 11 February 2020

The orientation of Vietnam's National Energy Development Strategy to 2030 with a vision toward 2045.



MOIT Report No.1931

- On 19 March 2020

The Ministry of Industry and Trade (“MOIT”) issued Report No. 1931/BCT-DL with proposals to the Prime Minister for **the development of wind power sources.**

Decision No.13

- On 6 April 2020

The Prime Minister issued Decision No. 13/2020/QĐ-TTg on encouragement mechanisms for **the development of solar power** in Vietnam, effective from 22 May 2020. (introduces a number of new incentives and mechanisms for investors in solar power projects in Vietnam)

CHALLENGES

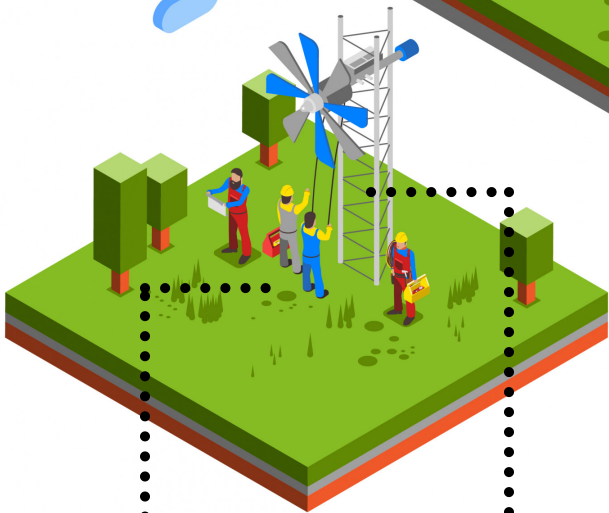
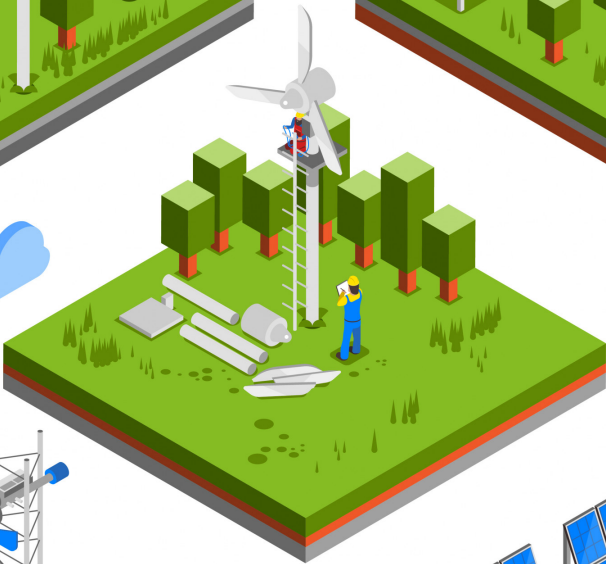
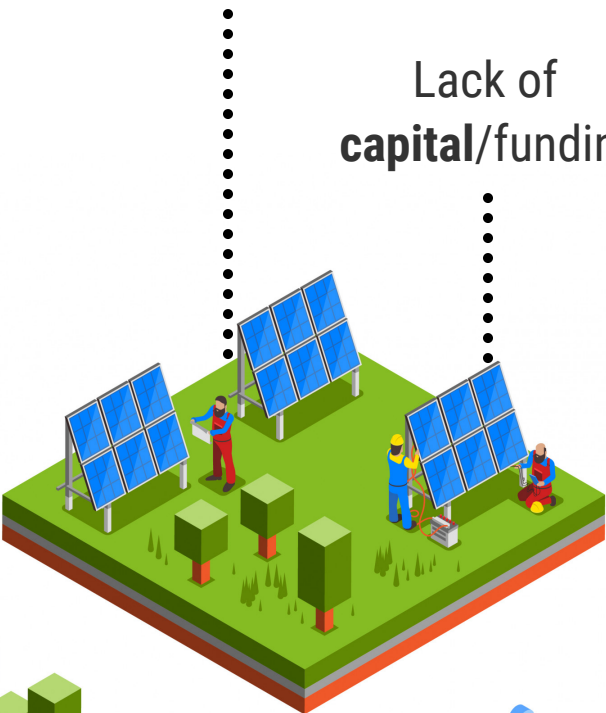
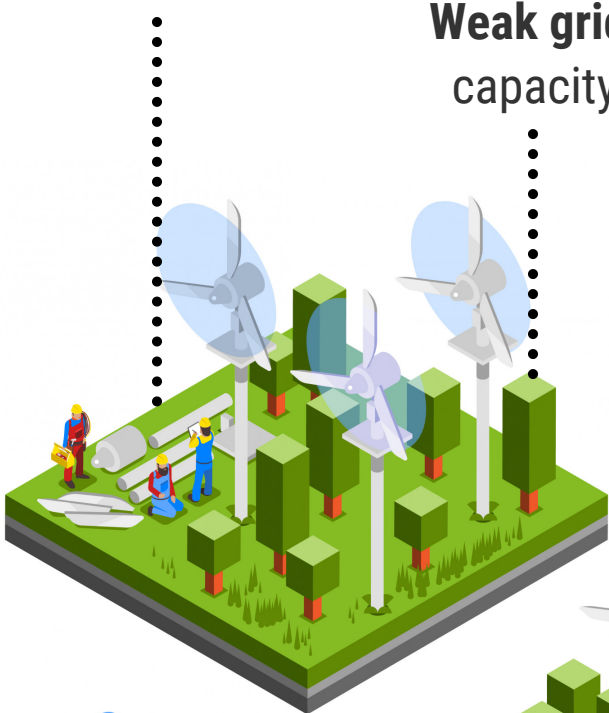


Low tariffs coupled with **high investment costs** in newer technologies

Un-bankable power purchasing agreements (PPA) terms

Weak grid capacity

Lack of capital/funding



Lack of qualified human resources

Delays in larger projects due to the complex regulatory framework

Lack of clarity in future energy prices.

Underdeveloped supporting industries

REFERENCES



- [1] **The World Bank in Vietnam** (n.d.) (Updated on Oct 6, 2020) The World Bank
<https://www.worldbank.org/en/country/vietnam/overview>
- [2] **Asian Development Bank** (December, 2015): Vietnam Energy Sector Assessment, Strategy, and Road Map (December, 2015)
<https://www.adb.org/sites/default/files/institutional-document/178616/vie-energy-road-map.pdf>
- [3] **Forbes Vietnam: VCEA** (September 20, 2020): Lĩnh vực năng lượng tái tạo sẽ phát triển sôi động trong thời gian tới (September 20, 2020)
<https://forbesvietnam.com.vn/tin-cap-nhat/vcea-linh-vuc-nang-luong-tai-cao-se-phat-trien-soi-dong-thoi-gian-toi-9203.html>
- [4] **The Law Reviews** (August, 2020): The Renewable Energy Law Review – Edition 3
<https://thelawreviews.co.uk/edition/the-renewable-energy-law-review-edition-3/1229911/vietnam>
- [5] **Vietnam Briefing** (November 12, 2020): Renewables in Vietnam: Current Opportunities and Future Outlook (November 12, 2020) <https://www.vietnam-briefing.com/news/vietnams-push-for-renewable-energy.html>
- [6] **Tilleke & Gibbins** (April 10, 2020): New Incentives for Solar Power Projects in Vietnam <https://www.tilleke.com/resources/new-incentives-solar-power-projects-vietnam>
- [7] **Ministry of Industry and Trade of Tuyen Quang Province** (September 09, 2019): Potential and Challenges for renewable energy development in Vietnam
<http://socongthuong.tuyenquang.gov.vn/tin-tuc-su-kien/nang-luong-moi-truong/tiem-nang-va-thach-thuc-phat-trien-nang-luong-tai-cao-o-viet-nam-ky-1-110.html>
- [8] **Vietnamnet Global** (November 29, 2020): Vietnam's renewables: Advantages and considerations <https://vietnamnet.vn/en/business/vietnam-s-renewables-advantages-and-considerations-693393.html>
- [9] **Ministry of Industry and Trade of the Socialist Republic of Vietnam (MOIT)** (July 09, 2020): Phát triển bền vững nguồn Năng lượng tái tạo nổi lưới và Điện mặt trời mái nhà
<https://www.moit.gov.vn/web/guest/tin-chi-tiet/-/chi-tiet/phat-trien-ben-vung-nguon-nang-luong-tai-cao-noi-luoi-va-dien-mat-troi-mai-nha-19897-2401.html>
- [10] **Electricity and Renewable Energy Authority in Vietnam under the Ministry of Industry and Trade EREA (MOIT) together with the Danish Energy Agency** (November, 2019): Báo cáo triển vọng năng lượng Việt Nam 2019 (EOR2019)
- [11] **EastAsiaForum** (May 13, 2020): The renewable energy transition is coming to Asia (May 13, 2020) <https://www.eastasiaforum.org/2020/05/13/the-renewable-energy-transition-is-coming-to-asia/>
- [12] **Allens Linklaters**: Renewables in Vietnam, Opportunities for Investment