# Industry Messaging Brief on Recommendation for Postponement of Feed-in-Tariffs Eligibility Deadline for Vietnam's Onshore Wind Industry

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This is an internal document prepared exclusively for the onshore wind industry and is for confidential use only. It cannot be published unless approved. Information in this document should be extracted, tailored and used to engage with appropriate stakeholders to argue for a postponement of the feed-intariff deadline in Vietnam. The document will be updated as information and new developments become available.

# **ACRONYMS**

Acronym	Name
COD	Commercial Operation Date
CPV	Communist Party of Vietnam
PM	Prime Minister
DPM	Deputy Prime Minister
DPPA	Direct Power Purchase Agreement
FiT	Feed-in-tariff
GWEC	Global Wind Energy Council
KOL	Key Opinion Leader
MNRE	Ministry of New and Renewable Energy (India)
MOF	Ministry of Finance
MOIT	Ministry of Industry and Trade
MPI	Ministry of Planning and Investment
MOT	Ministry of Transport
DOIT	Department of Industry and Trade
DOLISA	Department of Labor, Invalids and Social Affairs
DOT	Department of Transport
PDP	Power Development Plan
EVN	Electricity Vietnam
PPA	Power Purchase Agreement
PPC	Provincial People's Committee
PTC	Production Tax Credit
RE	Renewable Energy
VCCI	Vietnam Chamber of Commerce and Industry
VCEA	Vietnam Clean Energy Association
VEA	Vietnam Energy Association
BTWSEA	Binh Thuan Wind and Solar Energy Association

### **BACKGROUND**

Both the Communist Party of Vietnam ("CPV") and the Vietnamese Government have been supportive of an energy transition, advocating for expanded renewable energy ("RE") sources, particularly wind, in the country's future energy mix.

# 1. Key policy documents

2015 saw an early sign of the Government's commitment to RE development, when the then-Prime Minister ("PM") Nguyễn Tấn Dũng enacted Prime Ministerial Decision No. 2068/QD-TTg, approving Vietnam's RE development strategy by 2030, vision to 2050. This Decision identified wind as a key RE source to be given development priority. More recently, Politburo Resolution No. 55/NQ-TW provides the highest-possible political impetus for the move toward RE.

RE is also now well-reflected in Vietnam's National Power Development Plans ("PDP"). 2016's revised PDP 7 set wind energy targets of 2,000MW and 6,000MW for 2025 and 2030. These targets have been significantly increased in Draft PDP 8, pending approval. In the latest public draft, the onshore wind targets are 11,320MW (base load scenario) or 12,280MW (high load scenario) by 2025, and 18,010MW (base) or 19,080MW (high) by 2030.

Feed-in-tariffs ("FiT") were designed and introduced as a support mechanism to encourage rapid development of the wind energy sector. On September 10, 2018, then-PM Nguyễn Xuân Phúc enacted Prime Ministerial **Decision No. 39/2018/QD-TTg**, which set the current FiT prices for wind energy. The FiT price for onshore wind energy was set at 8.5 US Cent/kWh, an 8% increase from the previous price of 7.8 US Cent/kWh. This FiT price would apply to projects that begin commercial operations before November 1, 2021.

### 2. Background on the expiring FiTs deadline for wind energy

According to the Ministry of Industry and Trade ("MOIT")'s Circular No. 02/2019/TT-BCT dated January 15, 2019, wind energy projects must submit to Electricity Vietnam Group ("EVN") a draft test-run process for their plants 90 days prior to the commercial operation date ("COD").

With the November 1, 2021 COD deadline, August 3, 2021 is the deadline for wind energy projects to submit the draft test-run process for their plants. As of August 3, 2021 EVN reported that of the 144 wind projects with signed power purchase agreement ("**PPAs**"), only 106 projects had turned in their required submissions to request grid connection. This means that over 25% of projects with signed PPAs are not seeking to meet the FiT eligibility deadline.

Project investors and developers are facing many challenges and uncertainties preventing them from meeting the COD deadline. Beginning April 2021, when the fourth wave of COVID-19 infections began, the application of stringent social distancing measures, extensive lockdowns, and strict international and local mobility restrictions has hampered project development. Furthermore, disruptions in supply chains and difficulties in mobilizing local and personnel have prevented wind energy projects from moving towards completion.

Because of these major obstacles, many onshore wind projects will not achieve COD despite having submitted grid connection requests. According to a survey conducted in late August 2021 ("August 2021 survey") by the Global Wind Energy Council ("GWEC") on major wind developers and original equipment manufacturers, an estimated 4,000MW (approximately 71%) of installed capacity among projects that had submitted grid connection requests will not achieve COD before the November 1, 2021, deadline.

# 3. Statements by key supportive stakeholders

# 3.1. Provincial People's Committees

Provincial People's Committees ("**PPC**") have been generally supportive of a FiT postponement. In 2020, 10 PPCs submitted requests for extension of the FiT mechanism for another 1 to 2 years. Most recently in early August, PPCs in key provinces for onshore wind, namely Bac Lieu, Ben Tre, Ca Mau, Gia Lai, Soc Trang, and Tra Vinh have submitted requests for FiT postponements of 6 months, 12 months, 14 months, 2 months, 5 months, and 6 months, respectively.

#### 3.2. Vietnam Energy Association

The Vietnam Energy Association ("VEA") has demonstrated its support towards investors and developers by submitting a petition to the PM in late August 2021, requesting for a postponement of the current FiT schedule.

# 3.3. Vietnam Clean Energy Association

The Vietnam Clean Energy Association ("VCEA") has voiced its support for a postponement of the FiT schedule for wind energy. On July 20, 2021, the VCEA sent Official Correspondence No. 198/CV-VCEA addressed to the PM, the MOIT, and EVN on the issue. In the document, the VCEA cited major challenges caused by the COVID-19 pandemic, including delayed equipment imports and order fulfillments, restricted mobility for both local and foreign personnel, and on-site labor shortage as major factors delaying projects' progress. The VCEA requested that the Government postpone the FiT deadline by 3 to 6 months.<sup>1</sup>

### 3.4. Binh Thuan Wind and Solar Energy Association

The Binh Thuan Wind and Solar Energy Association ("BTWSEA") is also a proponent of postponing of the current FiT for onshore wind. On July 21, 2021, it submitted a petition to the PM, the MOIT, and EVN in which it cited mobility restrictions and local and foreign personnel shortage as key obstacles to wind projects' progress. The BTWSEA requested that the Government consider postponing the FiT deadline by 3 to 6 months so that wind projects can avoid bankruptcy due to COVID-19 challenges.

<sup>&</sup>lt;sup>1</sup> Source: VCEA, "Hiệp hội Năng lượng Sạch Việt Nam đề nghị gia hạn thời hạn phát điện thương mại" (*The VCEA proposed to postpone the COD deadline*). July 21, 2021. Accessed via: https://nangluongsachvietnam.vn/d6/vi-VN/news/Hiep-hoi-Nang-luong-Sach-Viet-Nam-de-nghi-gia-han-thoi-han-phat-dien-thuong-mai-6-161-10880?fbclid=lwAR0ajQr0C9qbHHOEEgbpGgLV8g4qSg-UFsxLgwIRxQkWmECxuPsxNZ0TkTA

# SPECIFIC REQUEST FOR INDUSTRY SUPPORT

The wind industry proposes that the **Government enact a 6-month postponement to the FIT deadline**. This is based on consideration of the dual goals of supporting businesses during the COVID-19 pandemic and preparing for an eventual transition to an auction mechanism.

The industry believes that projects need to demonstrate their capacity and clear progress towards completion in order to qualify for the postponement. This reflects the Government's priority of supporting businesses facing specific challenges from COVID-19. As such, only projects that would have been able to reach COD by the required deadline if the complicated COVID-19 situation had not gotten worse, should be qualified. The industry has discussed and proposes that the Government limit eligibility for the postponement only to projects that:

- Have a signed PPA with EVN, and
- Have imported turbines, with adequate proof of import from Vietnam customs, before the November 1, 2021 deadline.

### EVIDENCE SUPPORTING FIT DEADLINE POSTPONEMENT

Note: These positions are based on a synthesis of open-source research and surveys / interviews of wind developers, original equipment manufacturers, and other relevant stakeholders.

- I. Wind energy projects faced uncontrollable delays due to COVID-19 and the necessary containment measures adopted widely.
- 1. Restricted mobility and/or availability of local labor

Prior to late April 2021, COVID-19 measures in Vietnam had been successful, but the situation has drastically worsened, and the country now has over 400,000 cases. National and provincial authorities have adopted increasingly stronger measures to contain the virus' spread. For example, the PM's Directive No. 16/CT-TTg ("Directive 16") dated March 31, 2020, which mandates strict social distancing measures and travel restrictions, has been widely applied.<sup>2</sup>

Since July 17, 2021, Directive 16 has been applied widely to 19 Southern provinces. Since August 23, 2021, Ho Chi Minh City and some other Southern provinces even implemented stricter social distancing measures than under Directive 16. The associated restrictions have directly affected nearly 2,800MW of wind projects under development across the Southern region.

However, the total amount of MW affected by strict pandemic preventive and control measures is even greater. Authorities in other provinces, including Lam Dong, Binh Thuan, Ninh Thuan, Quang Binh, have also ordered the application of Directive 16. This means almost all provinces with large-scale wind projects are under strict social distancing with restricted internal and/or

<sup>&</sup>lt;sup>2</sup> Directive 16 provides guidance for the implementation of urgent measures for COVID-19 prevention and control, some of which include social distancing requirements between families, neighborhoods, villages, communes, districts, and provinces; a stay-at-home order; as well as restrictions and/or suspension of public transportation, movement from one area to another, and movement from affected areas to other areas.

inter-provincial travels. Strict containment measures remain in place as of September 2021, with some areas subject to strict 'stay in place' orders that further limit mobility and worker availability.

1.1 Since February 2021, stricter travel restrictions have affected the local workforce

The Ministry of Transport ("**MOT**") and provincial PPCs have suspended all public transportation, as well as restricted local and inter-provincial travel. While transportation for local workers and experts is not prohibited, rigorous restrictions have been put in place.

For example, Departments of Transport ("**DOT**") in many of the key wind provinces have placed a 50% cap on worker transport vehicles. More stringent restrictions have also been reported. For example, on August 5, 2021, the Lam Dong PPC sent an urgent telegram to Ocean Renewable JSC, denying its personnel access to the Cau Dat Wind Farm's construction site in an effort to control pandemic outbreak in the locality.

As stricter travel restrictions were introduced, many wind projects struggled to mobilize local workers to and in between project sites. According to GWEC's August 2021 survey, wind developers reported to have experienced challenges in mobilizing local construction workers and specialist testing teams for on-site activities due to stricter travel restrictions as early as February 2021. Locally required quarantines for interprovincial travel have made these challenges acute. For example, turbine construction specialists who have finished at one site are unable to move to a neighboring Province or District to build a new site because of lack of clear procedures between and within Provinces and varying local requirements for quarantine. Some projects have been told 28-day centralized quarantines are required for workers coming into the province.

Local and inter-provincial movement restrictions, compounded by rigorous COVID-19 screenings and testing procedures, have not only significantly increased the cost, but also the time required to transport workers across sites in different localities by 2 to 3 weeks.

### 1.2 On-site personnel caps constrain local workforce availability and productivity

Following Directive 16 implementation, provinces such as Ninh Thuan, Binh Thuan, Tien Giang, Bac Lieu, and Ca Mau, imposed a 50% cap for on-site personnel. This reduction in onsite personnel has inevitably delayed project progress. In addition, it has led to reduced productivity with remaining workers stretched thin and required to take on additional responsibilities.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Recruitment group Navigos Group found that approximately 25% of energy industry workers had to increase their working hours and take on responsibilities that are either for other departments or are not within their profession because of COVID-19.

Source: Navigos Group, "Energy industry personnel: Opportunities and Challenges in adapting to new recruitment requirements". August 25, 2021. Accessed via: https://www.navigosgroup.com/energy-industry-personnel-opportunities-challenges-adapting-new-recruitment-requirements/

According to an August 16 bulletin from Vietnam Chamber of Commerce and Industry ("**VCCI**"), enterprises in the Mekong Delta region compensated for labor shortages by requesting workers to take on additional responsibilities which caused reductions in overall productivity.<sup>4</sup>

Shortage in manpower, compounded by curfews resulting from lockdown restrictions, has significantly slowed down projects' construction and equipment installation rate, with some developers reporting slowdowns as much as 50%. As installation of wind turbines are contingent on wind conditions, developers may have to resort to night shifts if daytime wind conditions are not ideal. However, with curfews in place, as early as 6pm in some provinces, night shifts are not possible. As a result, some project developers reported that the lead time for turbine installation has increased from 7 days per turbine to 10-15 days.

On June 16, 2021, Tien Giang PPC announced that to control the spread of COVID-19 more effectively in the province, the Tan Phu Dong Wind Power Project may not add more personnel to project sites without prior approval from the PPC.

1.3 "3-on-the-spot" arrangements have imposed constraints that may increase risks of onsite infections and reduce workers' availability, wellbeing, and overall productivity

"3-on-the-spot" is a stay-at-work scheme, whereby workers work, dine, and rest on the project site. According to Mr. Đỗ Thắng Hải, Vice Minister of MOIT, though these arrangements have been effective at some Northern industrial complexes, they've faced challenges in Ho Chi Minh City and Southern provinces.<sup>5</sup>

Experience in other industries have also shown that "3-on-the-spot" arrangements are vulnerable to on-site infections, risking further quarantine requirements or even site closures, draining an already depleted workforce. This is because some outside physical contact is inevitable as workers receive inventory orders or catering deliveries.<sup>6</sup>

In June 2021, the Tien Giang PPC ordered a local wind energy developer to conduct RT-PCR tests on all project personnel and that the project may not resume without an all-negative result. Some results returned positive, and the project had to suspend operations for another round of RT-PCR testing.

<sup>&</sup>lt;sup>4</sup> Source: VCCI, "Bản tin VCCI Cần Thơ" (*VCCI Mekong Delta Report*). August 16, 2020. Accessed via: http://vccimekong.com/upload/admin///2021/bantinkt/ban-tin-ky-7-7-2021.pdf

<sup>&</sup>lt;sup>5</sup> Source: VCCI, "Các tỉnh được tự quyết mô hình '3 tại chỗ'" (*Provinces may determine their own '3 on-the-spot' models*). August 13, 2021. Accessed via: https://vcci.com.vn/cac-tinh-duoc-tu-quyet-mo-hinh-3-tai-cho

<sup>&</sup>lt;sup>6</sup> Source: VCCI, "Nhà máy '3 tại chỗ' – từ nơi an toàn thành ổ dịch như thế nào?" ('*3-on-the spot factories – How safe havens can become infection clusters*). July 30, 2021. Accessed via: https://vcci.com.vn/nha-may-%E2%80%983-tai-cho%E2%80%99-tu-noi-an-toan-thanh-o-dich-nhu-the-nao

High levels of infection risk also inflict psychological strain on workers. Low mental wellbeing has been reported.<sup>7</sup> A fear of contracting COVID-19, as well as a desire to avoid the above challenges, has led wind sector workers to report hesitancy to travel and work onsite.

The Tien Giang PPC required workes of a local wind energy developer to adhere to "3-on-the-spot" arrangements. Refusing to comply with this requirement, approximately 100 local workers had quitted, citing that their houses are already located within the province.

While the "3-on-the-spot" model presents many challenges to wind projects, some developers resorted to this arrangement to ensure construction continuity. As mentioned earlier, local curfews have slowed down project progress, and to overcome such difficulties, some developers have applied for local authorities' approval to implement "3-on-the-spot" arrangements so that their projects can carry out construction activities beyond the local curfew hours. Developers reported that it may take up to one month to finalize the paperwork for this arrangement.

- 2. Restricted mobility and/or availability of local labor
- 2.1 Strict social distancing measures have delayed access to projects for foreign experts

Projects face many difficulties recruiting foreign experts and technicians due to long quarantine procedures and stringent requirements to obtain work permits.

As mentioned above, many key provinces where major onshore wind projects are located have implemented strict social distancing and imposed more extensive intra- and inter-provincial travel restrictions. Substantial delays have been caused by additional local quarantine requirements for foreign workers, on top of the 14-21 days quarantines required on arrival in Vietnam. Because each province and locality have a different local quarantine requirement, resulting uncertainties have introduced substantial delays and difficulties in mobilizing needed foreign expertise. Projects report that the time required to move a foreign worker or expert to one site in Vietnam or move them in between sites, has more than doubled, from 8 to 18 weeks.

An onshore wind developer reported that their Thai crane installation contractor's applications for entry have been rejected by Ho Chi Minh City authorities in May 2021 and Soc Trang authorities in 2021. The authorities requested the developer to reapply after social distancing measures under Directive 16 ended. This means that the installation of turbines is significantly delayed with no solution in sight.

<sup>&</sup>lt;sup>7</sup> Source: CafeF, "Thêm đề xuất về '3 tại chỗ'" (*Further proposals for '3-on-the-spot arrangements*). August 16, 2021. Accessed via: https://cafef.vn/them-de-xuat-ve-3-tai-cho-20210816073748203.chn

At the same time, while it takes much longer to bring in foreign expertise, the visa system has not adjusted to accommodate this change. Some developers report once required quarantines are completed, work visas may only be valid for 1-2 months, not enough time to complete the needed work. More recently, some wind developers report that foreign experts and technicians have refused to travel and work onsite to avoid these travel restrictions and administrative processes, as well as to avoid contracting COVID-19 given Vietnam's challenging outbreak.

In July 2021, the Lam Dong PPC ordered all hotels and hostels to stop receiving guests from other provinces and/or cities. Therefore, some foreign experts could not travel to the project site despite having completed concentrated quarantine upon arrival in Hanoi.

# 2.2 Challenges of fulfilling more stringent labor requirements for foreign workers

Another challenge has been delays in fulfilling more stringent labor requirements for foreign workers entry and employment under Decree No. 152/2020/ND-CP ("Decree 152"). Stringent labour permit requirements for foreign workers have lengthened the amount of time needed to prepare paperwork to get foreign experts and technicians to enter Vietnam (average of 70-80 days).

Decree 152 has posed major challenges to companies across many sectors, an issue that is being addressed by the Government. However, these challenges have been ongoing for months and have caused many delays in wind project developments that cannot be redressed or fixed given both the COVID context and short time before the COD deadline.

Among the many challenges associated with Decree 152 have been the requirements that foreign technicians receive certified letters regarding their experience from former employers and that experts' university degrees must match exactly their job descriptions. Particularly during the COVID pandemic, getting letters from former employers is not practical. And regarding expertise, undergraduate degrees are often not connected to a person's expertise and experience, especially in a new and evolving sector like wind energy.

- 3. Disruptions of supply chain and/or logistics
- 3.1 Disruptions in equipment production and order fulfillment have contributed to further delays

Many projects have also experienced extensive supplier delays, with order fulfillment significantly diminished due to COVID-19.

This problem has affected both local and foreign suppliers, who have struggled to sustain production and delivery, significantly slowing down or, worse yet, entirely disrupting wind projects development. Many developers in the industry have reported supply challenges for key construction materials, including iron, steel, fuel, sand, gravel, and cement. Wind turbine delivery, indispensable technical components for projects that are predominantly imported from foreign

manufactures, have also experienced months-long delays. As foreign manufacturers had to slow production due to COVID-19 outbreaks globally, projects were inevitably delayed.

Once turbines arrived in Vietnam, limited mobility resources to move these massive pieces of machinery, compounded by port congestion at Southern Ports, has caused further delays to wind energy projects.

A wind power developer in Tien Giang Province reported that their supplier has missed the delivery of important turbine equipment (nacelle, hub, and blade) 5 times, which prolonged the contract by another 2 months.

# 3.2 Delays in equipment import due to disruptions in international transport and delayed customs clearance

In addition to order fulfilment issues from both local and foreign suppliers, onshore wind projects also dealt with delays resulting from disruptions in international transport, which significantly delayed the import of equipment. These disruptions, resulting from delays and backlogs in the customs clearance process, as well as in warehousing and freight services<sup>9</sup>, have drastically delayed the import of onshore wind equipment Vietnam.

Furthermore, international transport procedures were reported to have significantly slowed down in Asia<sup>10</sup>, and Vietnam is not an exception. Major ports in Vietnam, such as Cai Mep, Cat Lai, and Phu My, reported undergoing days of congestions due to backlogged containers as enterprises halted their operations due to COVID-19-related challenges and strict social distancing measures under Directive 16. Project developers reported that port congestion has resulted in delays lasting 10-14 days on average.

Furthermore, the import of wind energy equipment is also seriously affected by delays in customs clearance, which are estimated at approximately 2 weeks by developers. Due to lockdown and social distancing orders, the exchange of customs documents among customs offices, developers, credit institutions, and other relevant agencies have virtually halted. Furthermore, customs clearance has been significantly slowed down due to customs authorities' requirements for original documents and signatures rather than copies and digital versions, which project developers grappled to fulfill amidst lockdown and social distancing orders. In other cases,

<sup>&</sup>lt;sup>8</sup> Source: Vietnam News, "Investors concerned about wind power development.", May 11, 2020. Accessed via https://vietnamnews.vn/economy/716482/investors-concern-about-wind-power-development.html

Source: Duane Morris Vietnam "Vietnam Economic Times interviewing Dr. Oliver Massmann", February 21, 2021. Accessed via: https://blogs.duanemorris.com/vietnam/2021/02/25/vietnam-wind-energy-latest-update-on-tariffs-vietnam-economic-times-interviewing-dr-oliver-massmann/

<sup>&</sup>lt;sup>9</sup> Source: Saigon Times, "Doanh nghiệp xoay sở với khó khăn về vận chuyển" (*Enterprises grappled with challenges regarding transportation*). July 16, 2021. Accessed via: https://www.thesaigontimes.vn/318301/doanh-nghiep-xoay-xo-voi-kho-khan-ve-van-chuyen.html

<sup>&</sup>lt;sup>10</sup> Source: Tai Chinh Magazine, "Doanh nghiệp logistics Việt ảnh hưởng thế nào từ dịch COVID-19?" (How are Vietnamese logistics enterprises affected by COVID-19?". March 6, 2020. Accessed via: https://tapchitaichinh.vn/tai-chinh-kinh-doanh/doanh-nghiep-logistics-viet-anh-huong-the-nao-tu-dich-covid19-319785.html

developers reported that some tax and authorities personnel handling customs paperwork had tested positive for COVID-19, which introduced further delays as additional time is required for a handover process.

### 3.3 Disruptions in local transport have delayed equipment transportation

Projects have also dealt with disruptions and delays in local ground transportation of equipment to the project site. A prominent issue has been delays in removing physical obstructions on ground transportation routes. While EVN is responsible for dispatching manpower to lift and/or relocate electrical lines that obstruct these routes, it has not been able to do so due to movement restrictions and social distancing measures adopted by local authorities under Directive 16. As a result, even if equipment had been imported into Vietnam, they cannot be transported to project sites as scheduled, further delaying the onshore wind projects' construction and turbines erection progress, as evidenced in the case of Soc Trang Province<sup>11</sup>. Furthermore, COVID-19 control measures under Directive 16 have also delayed and interrupted local ground transportation. Most recently, for instance, the Lam Dong PPC suspended the transportation of wind turbines to the Cau Dat Wind Farm, citing concerns over the worsening COVID-19 outbreak in the region<sup>12</sup>.

Projects are further delayed as COVID-19 control measures exacerbate the already limited capacity of transportation enterprises in transporting oversized and overweight wind energy equipment to project sites. Even before the outbreak of COVID-19, project developers have experienced road congestions, along with inadequate supply of trailers, barges, and crane operators. Such difficulties became acute following the implementation of movement restrictions and lockdowns, substantially increasing transportation time.

### 4. Other challenges

In addition to the challenges mentioned above, onshore wind power projects have also confronted extended delays resulting from backlogs and delays of administrative procedures due to COVID-19.

### 4.1 Land clearance has been significantly delayed due to COVID-19

Land clearance has been virtually halted due to local COVID-19 prevention and control measures. A wind energy developer in Soc Trang Province reported that they have not been able to hold dialogues and/or advocacy initiatives nor make payments to households. Furthermore, officials

Source: Lao Dong Newspaper, "Vướng đường vận chuyển, nhiều dự án điện gió nguy cơ không kịp tiến độ" (Multiple wind energy projects are behind schedule due to obstacles on ground transportation routes). June 7, 2021. Accessed via: https://laodong.vn/kinh-te/vuong-duong-van-chuyen-nhieu-du-an-dien-gio-nguy-co-khong-kip-tien-do-917797.ldo

<sup>&</sup>lt;sup>12</sup> Source: Lam Dong Newspaper, "Dừng việc vận chuyển thiết bị tuabin gió phục vụ Dự án Nhà máy điện gió Cầu Đất" (*Transportation of wind turbines to the Cau Dat Wind Farm has been suspended*). August 6, 2021.

Accessed via: http://baolamdong.vn/doi-song/202108/dung-viec-van-chuyen-thiet-bi-tuabin-gio-phuc-vu-du-an-nha-may-dien-gio-cau-dat-3071631/

from the Land Clearance Council and the Land Fund Development Center have not been able to work in the area due to social distancing measures in place. Lastly, COVID-19 has diverted the commune leaders' attention away from land clearance procedures; focused on pandemic prevention and control, these leaders have not been able to assist wind energy projects in coordinating the implementation of land procedures, including but not limited to verifying land's origin or holding land clearance and compensation dialogues.

# 4.2 General paperwork has been significantly delayed due to COVID-19

Many onshore wind projects also reported to have experienced delays in general paperwork. Due to COVID-19, local Departments of Labor, Invalids, and Social Affairs ("**DOLISA**") have faced constraints that slow processing of work permits for foreign experts and technicians, meaning that wind projects must wait longer to obtain necessary work permits. As such permits are required in order for foreign experts and technicians to be able to work at a site, these delays have cascading effects when experts are expected to move across multiple construction sites.

An onshore wind energy project in Soc Trang Province reported that by the end of August 2021, their Chief Operations Officer has not received his/her work permits from DOLISA even though he/she submitted the application in May 2021. As his/her passport has been submitted to DOLISA to apply for the work permit, the Officer has not been able to travel to site.

### II. Some other sectors have received specific support from Government

In response to broad-ranging negative economic impacts of COVID-19, the Government has implemented a range of policies and measures to alleviate pressures on businesses.

Some of the most notable policies include Resolution No. 68/NQ-CP on support policies for employers and employees; Decree No. 52/2021/ND-CP deferring value-added tax, corporate income tax, personal income tax and land rents in 2021; and the Government's Draft Resolution on support policies for enterprises during the pandemic.

While the Vietnamese Government has enacted timely cross-sector policies to support the business community, onshore wind has been one among the many industries most severely impacted by the pandemic. Therefore, the onshore wind industry is in great need of industry-specific relief measures, especially when the industry is still in its early stages.

In light of the pandemic, the Government has adopted different relief measures to support industries that were severely hit. For instance, in early March 2020, MOF enacted Circular No. 14/2020/TT-BTC ("Circular 14") to waive and reduce 15 categories of securities-related services to assist organizations and individuals in the financial sector. While Circular 14 was set to expire in August 2020, it has had two consecutive extensions in response to the COVID-19 situation.

The Government also provided industry-specific relief to the transport and logistics industry. On September 1, 2020, MOT enacted Circular No. 19/2020/TT-BGTVT to reduce prices of aircraft landing and take-off services and arrival and departure air traffic control by 50%. The maritime sector also received support, with maritime pilot and towing companies having prices reduced under Vietnam Maritime Administration's Official Document No. 2688/CHHVN-VTDVHH.

# III. Projects missing the FiT deadline will be vulnerable to negative financial impacts

Many onshore wind developers expect to face severe financial losses if they miss the FIT deadline.<sup>13</sup> These losses could send companies into bankruptcy, cause projects to be halted midway through construction, eliminate expected employment and tax revenue for local provinces. Besides, the investment environment in Vietnam would be negatively affected.

# 1. Direct financial impacts on Vietnam's domestic economy

According to estimates by GWEC, if 4,000MW of wind projects cannot meet the COD deadline, then there will be major investment losses and unrecoverable loss of future jobs. The amount of onshore wind power now at risk equates to USD 6.51 billion in capital expenditures (based on the average expenditures of wind projects in Vietnam), in addition to USD 151 million in operating expenditures per year. As much of these investments would be made in local construction and services activities, the fallout will be mostly borne by Vietnam's domestic economy.

Data used to calculate the global and Vietnam averages for capital and operating expenditures of onshore wind projects have been drawn from the BloombergNEF LCOE database and an expert elicitation survey of more than 140 global wind experts, published in *Nature* journal in 2021.<sup>14</sup> **Table 1** provides a summary of global averages and Vietnam's 2021 estimate for capital and operating expenditures for onshore wind.

<sup>&</sup>lt;sup>13</sup> Source: Nang luong Viet Nam, "Không được gia hạn FiT, nhiều doanh nghiệp điện gió có nguy cơ phá sản" (Many wind power businesses may go bankrupt if Vietnam does not extend FiT scheme). August 23, 2021. Accessed via https://nangluongvietnam.vn/khong-duoc-gia-han-gia-fit-nhieu-doanh-nghiep-dien-gio-co-nguy-co-pha-san-27185.html

<sup>&</sup>lt;sup>14</sup> Source: Wiser, R., Rand, J., Seel, J. et al. Nat Energy 6, 555–565 (2021).

These figures have also been checked against summary reference figures from NREL (<a href="https://www.nrel.gov/docs/fy21osti/78471.pdf">https://www.nrel.gov/docs/fy21osti/78471.pdf</a>). Capital expenditure (CAPEX) for Vietnam onshore wind was increased by 4% from the BloombergNEF figure, based on GWEC's discussions with onshore wind developers in Vietnam on realized CAPEX as of August 2021.

Table 1. Onshore wind expenditures, global average 2019

	Capital Expenditures (CAPEX, \$/MW)	Operating Expenditures (OPEX, \$/MW/year)	Development Expenditures (\$/MW)
Description	Expenditures for manufacturing, construction, transport, installation, vessels, electricity systems and grid connection.	Expenditure for services including local logistics, monitoring, inspection and maintenance. Onshore wind projects typically operate on 25-year project lifetimes.	Expenditure during project development, including surveying and consenting.
Global Average, 2019 <sup>15</sup>	1,335,100.91	38,528.38	N/A <sup>16</sup>
Vietnam Estimate, 2021 <sup>17</sup>	1,627,600.00	37,750.00	N/A

Not only are investments affected, but the domestic job market will also suffer significant losses if onshore wind projects fail to materialize. According to estimates by GWEC, over 25 years of project lifetime, 4,000MW of onshore wind are capable of generating 20,900 jobs. Most of these jobs are local, spread across the value chain, including project development, transport, installation, and operations and maintenance. **Table 2** below provides a summary of job creation across a 50MW onshore wind project with a 25-year lifetime.

<sup>&</sup>lt;sup>15</sup> Source: Wiser, R., Rand, J., Seel, J. et al. Nat Energy 6, 555–565 (2021). Data reflects projects with global average capacity factor of 38%.

<sup>&</sup>lt;sup>16</sup> These calculations did not include development expenditures, due to lack of available global data, though investment in in-country support offices are often required for project development and consenting. This table also excludes decommissioning expenditures, which are typically comprise a minor share of total project costs.

<sup>&</sup>lt;sup>17</sup> According to BloombergNEF LCOE Data, last updated on 23 June 2021. The figure given is the average between low and high figures in the database and assumes projects with average 28.5% capacity factor. The CAPEX for Vietnam has been increased by 4% from the BloombergNEF figure, based on GWEC discussion with developers of onshore wind projects in Vietnam on realised CAPEX costs as of August 2021.

Table 2. Job Creation Across a 50 MW Onshore Wind Project with 25-Year Lifetime<sup>18</sup>

Segment of the Wind Value Chain	Example Activities	Example Jobs	FTE Jobs Required (% of total) <sup>19</sup>
Project planning and development	<ul> <li>Site selection</li> <li>Feasibility studies</li> <li>Environmental impact assessments</li> <li>Community engagement</li> <li>Engineering design</li> <li>Project development</li> </ul>	<ul> <li>Legal, property and tax experts</li> <li>Financial analysts</li> <li>Engineers</li> <li>Environmental and geotechnical scientists</li> </ul>	10.3 (3.8%)
Procurement	<ul><li>Design specifications</li><li>Sourcing</li></ul>	<ul><li>Sourcing specialists</li><li>Engineers</li></ul>	N/A
Manufacturing of components and systems	<ul> <li>Manufacturing and assembly of nacelles, blades and towers</li> <li>Manufacturing of monitor and control systems</li> </ul>	<ul> <li>Factory workers</li> <li>Quality control</li> <li>Marketing and sales</li> <li>Engineers</li> <li>Management</li> </ul>	73 (27.9%)
Transport	Transport of components	<ul><li> Drivers</li><li> Logistics experts</li><li> Technical personnel</li></ul>	3.4 (1.3%)
Installation	<ul> <li>Project site preparation</li> <li>Civil works</li> <li>On-site assembly of components</li> </ul>	<ul> <li>Construction workers</li> <li>Technical personnel</li> <li>Engineers</li> <li>Health and safety experts</li> <li>Logistics and quality control experts</li> </ul>	103.1 (39.4%)
Grid connection and commissioning	Cabling and grid connection	<ul><li>Construction workers</li><li>Technical personnel</li><li>Engineers</li></ul>	29.5 (11.3%)

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<sup>&</sup>lt;sup>18</sup> Source: International Renewable Energy Agency (IRENA), *Renewable Energy Benefits: Leveraging Local Capacity for Onshore Wind*, Abu Dhabi, 2017.

<sup>&</sup>lt;sup>19</sup> Data originally provided by IRENA in person-days; jobs were determined by dividing the person-day figure by 260, the typical number of working days in a year. One job is defined as one calendar year of full-time employment (FTE, 260 working days) for one person. This assumes an 8-hour workday, 5-day working week and 52 working weeks in a year, in line with a standard calculation of one FTE year based on one individual working 2,080 hours in one year. A job can be considered to be equivalent to an FTE year.

	<b>5</b> · ·		
	Project	Health and safety	
	commissioning	experts	
Operation and	Ongoing O&M	<ul> <li>Operators</li> </ul>	10.3 (3.9%)
maintenance	over project	• Engineers	
(O&M)	lifetime (typically	<ul> <li>Construction</li> </ul>	
	25 years)	workers	
		• Technical personnel	
		• Lawyers	
		<ul> <li>Management</li> </ul>	
Decommissioning	• Planning	Construction	32.4 (12.4%)
(in the case of	decommissioning	workers	
repowering,	or repowering	• Technical personnel	
moving back to	• Dismantling the	• Drivers	
the start of the	project on-site	• Engineers	
value chain)	<ul> <li>Disposal and</li> </ul>	• Environmental	
	recycling of	scientists	
	components	5. Health and safety	
	Site clearing	experts	
Total			262

With an enormous volume of foregone investments, along with more than 20,000 local jobs, provincial and local authorities will incur significant losses in expected tax revenues in addition to the missed opportunity to invest in future clean power sector.

# 2. Indirect financial impacts on Vietnam's domestic economy

If the COVID-19 challenges facing the wind energy sector are not addressed, investors and developers are likely to withdraw from the Vietnam market. Given the risky projects without a clear path forward in sight, investors tend to re-evaluate project's feasibility while weighing economic gains and short-term risks. Pandemic uncertainty and non-favorable business environment will heighten perceived risks of Vietnam's wind power industry and diminish investor confidence, ultimately diverting investment away from the country.

Therefore, postponement of the FIT deadline, besides saving businesses from current hardships, will increase investor confidence and attract investment in the post-COVID period. This is also a proof of the Government's support for RE, an important and developing industry, making Vietnam even more attractive as the leading ASEAN nation on clean energy. Furthermore, investors will see how the government's flexible response has supported the industry in difficult times, which will lead to more positive assessments for future investment projects. Such measures by the Government not only leaves a positive impact on onshore wind investors, but

also a much wider range of companies looking to diversify their businesses and supply chain into the Southeast Asian market.

Finally, in the context of the global transition from fossil fuels to RE and the central role of wind power in the draft PDP 8, supporting the sector's business environment will be essential for Vietnam to achieve its energy and development goals.<sup>20</sup> Without it, existing partnerships are likely to collapse and key supply chains, vital to reducing the cost of wind power, will never be developed.

IV. Many Governments globally have provided COVID-19 relief to onshore wind energy industry

# 1. The United States – tax incentives and commissioning deadline extension

According to analysis by the American Wind Energy Association in early 2020, the pandemic was threatening a total of USD 35 billion in investment and put an estimated 25GW of the US wind projects at risk, as many projects might be postponed or even canceled either partially or entirely.<sup>21</sup> Moreover, the economic losses were expected to have an outsized impact on rural areas in the US, where 99 percent of wind projects are located.<sup>22</sup>

Against this backdrop, timely adjustments to tax incentives were made by the government to address wind industry officials' concerns and mitigate potential harm to local economic development. In early May 2020, the US Department of Treasury released guidance that offering onshore wind and solar projects more time to meet tax credit deadlines, an acknowledgement of the challenges brought by the COVID-19 lockdown.<sup>23</sup> Onshore wind projects that started in 2016 and 2017 now have five years instead of four years previously to finish construction while still receiving their Production Tax Credit ("PTC") benefits.

In December 2020, Congress further extended tax credits for RE, a move included in a USD 1.4 trillion federal package alongside a USD 900 billion COVID-19 relief bill. <sup>24</sup> The scheduled eradication of full-valued PTC was flexibly replaced by the extension of PTC at 60% of the full

<sup>&</sup>lt;sup>20</sup> Source: US Energy Information Administration, "Vietnam's latest power development plan focuses on renewable sources". August 23, 2021. Accessed via:

https://www.eia.gov/todayinenergy/detail.php?id=48176#: ``text=The%20draft%20PDP%208%20expands, of%20the%20country's%20generation%20mix. & text=Under%20the%20draft%20PDP%208, grid%20hampers%20these%20capacity%20additions.

<sup>&</sup>lt;sup>21</sup> Source: The New York Times, "How the Virus Slowed the Booming Wind Energy Business". August 21, 2021. Accessed via: https://www.nytimes.com/2020/10/26/business/energy-environment/coronavirus-renewable-energy-wind.html

<sup>&</sup>lt;sup>22</sup> Source: RENews Biz, "COVID 19: 25GW of US Wind Projects at Risk". August 22, 2021. Accessed via: https://renews.biz/59211/covid-19-25gw-of-us-wind-projects-at-risk/

<sup>&</sup>lt;sup>23</sup> Source: The New York Times, "How the Virus Slowed the Booming Wind Energy Business". August 21, 2021. Accessed via: https://www.nytimes.com/2020/10/26/business/energy-environment/coronavirus-renewable-energy-wind.html

<sup>&</sup>lt;sup>24</sup> Source: US Energy Information Administration, "US wind energy production tax credit extended through 2021". August 22, 2021. Accessed via: https://www.eia.gov/todayinenergy/detail.php?id=46576

credit amount for one additional year through December 31, 2021, along with a new 30 percent investment tax credit introduced for offshore wind projects that start construction through 2025. Under the new PTC legislation, project construction must start by December 31, 2021 to be eligible.

Despite the US registering the world's highest number of COVID-19 cases, the US onshore wind sector reported its highest-ever year of new installations in 2020. Nearly 17GW was commissioned, bringing the total above the 120GW threshold.<sup>25</sup> The extension of favorable PTC rate and commissioning deadlines amid the outbreak was a major stimulus for developers to speed up construction in late 2020. PTC qualification is forecast to remain as the main driver for new onshore installations out to 2025.

The US wind industry's explosive growth and resilience show how government's timely and flexible support is vital to industry's development amid the pandemic. It took the US government just four months after the first cases were reported to initiate the first measures to help wind businesses cope with delays in logistics and construction brought by lockdown orders.

## 2. The United Kingdom – extended FiT accreditation deadlines

The United Kingdom wind sector's supply chain has faced massive challenges because of lockdowns. For instance, major companies in the wind industry including Siemens Gamesa have to temporarily halt turbine production to comply with the country's lockdown order.

To respond to these difficulties, the UK government on March 30, 2020 issued the Feed-in-Tariffs (Amendment) (Coronavirus) Order 2020.<sup>26</sup> The Order allowed small-scale renewable installations with capacity up to 5 MW extra time to apply under the FiT scheme, with the application deadline extended six months to September 30, 2020. Prior to this Order, the scheme was due to close to new applicants on March 31, 2020.

In June 2020, the Department for Business, Energy and Industrial Strategy consulted on further government support for RE projects affected by COVID-10 delays. The consultation session concluded with the Feed-in-Tariffs (Amendment) (Coronavirus) (No. 2) Order 2020 in September 2020, whereby the Government replaced the 6-month extension with a 12-month extension for all installations with initial accreditation deadlines falling between March 1, 2020 and September 30, 2020.

For large scale wind installations (ROO-FIT scale), whose declared net capacity exceeds 50kW and a totally installed capacity above 5MW, their validity period is extended to 24 months, with such

<sup>&</sup>lt;sup>25</sup> Source: Global Wind Energy Council, *Global Wind Report 2021*. Accessed via: https://gwec.net/wp-content/uploads/2021/03/GWEC-Global-Wind-Report-2021.pdf

<sup>&</sup>lt;sup>26</sup> Source: The UK Government, *The Feed-in-Tariffs (Amendment) (Coronavirus) Order 2020.* August 23, 2021. Accessed via: https://www.legislation.gov.uk/uksi/2020/375/contents/made

validity period ending either on or before March 31, 2021. For ROO-FiT scale community wind installations, the deadline was extended until September 30, 2021.<sup>27</sup>

The UK government's timely amendments to FiT accreditation deadlines not only lessened the pressure that the industry encountered due to delays in project execution but also provided more certainty to businesses' decision-making process.

# 3. Germany – COD deadlines extensions and amendments to energy legislation

In light of COVID-19, the German government in mid-May 2020 adopted legislative measures to support the RE industry and guarantee energy transition.

On May 15, 2020, the German Parliament (German Bundestag) passed the Planning Safeguarding Act, along with draft amendments to the 2017 Renewable Energy Sources Act and additional energy law provisions submitted by the Federal Government.<sup>28</sup> Under the Planning Safeguarding Act, documents from RE developers in the context of the Special Equalization Scheme could be submitted until November 30, 2020, as the government acknowledged that COVID-related delays were impeding project implementation.

Moreover, a six-month extension of COD deadline was granted for RE projects that were supposed to become operational by June 30, 2020. In addition to deadline extensions, the Act provided that planning and approval procedures as well as specific decision-making procedures involving the public sector could be conducted digitally. This ensures important processes, such as planning and seeking approval for power grid expansion, proceeded efficiently despite movement restrictions or lockdown orders.

As a result of the German government's efforts, new installations pace accelerated in the second quarter of 2020 and even outpaced 2019 installations in the same period.<sup>29</sup> These legislative measures reflected the German government's well-timed support to the RE industry, which creates legal certainty and preserved investor confidence.

<sup>&</sup>lt;sup>27</sup> Source: Department for Business, Energy and Industrial Strategy, "Feed-in-Tariffs Deadlines: Government Response on measures to mitigate COVID-19 commissioning delays to pre-registered and pre-accredited installations". August 22, 2021. Accessed via:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/915325/fit-extension-govt-response.pdf

<sup>&</sup>lt;sup>28</sup> Source: Federal Ministry for Economic Affairs and Energy, "Minister Altmaier: 'We are ensuring that the coronavirus pandemic will not delay the energy transition'". August 25, 2021.

Accessed via: https://www.bmwi.de/Redaktion/EN/Pressemitteilungen/2020/20200515-altmaier-we-are-ensuring-that-the-coronavirus-pandemic-will-not-delay-the-energy-transition.html

<sup>&</sup>lt;sup>29</sup> Source: International Energy Agency, "Covid and the resilience of renewables". August 25, 2021. Accessed via: https://www.iea.org/reports/renewables-2020/covid-19-and-the-resilience-of-renewables

### 4. India – commissioning deadline extension

India ranks second globally in total COVID-19 cases<sup>30</sup> which drove nation-wide lockdowns in 2020 and supply chain disruptions. According to BloombergNEF, in 2020 India commissioned only 1.1GW of onshore wind projects, the slowest pace of new builds in a decade.<sup>31</sup>

To help wind developers mitigate challenges, the Ministry of New and Renewable Energy ("MNRE") on April 17, 2020 issued a memorandum providing a blanket extension of scheduled commissioning date for RE projects. The extension was for the period of lockdown plus thirty days.<sup>32</sup> In mid-August 2020, the MNRE released another memorandum which instructed that all RE projects under implementation as on the date of lockdown, March 25, 2020, would be granted five more months until August 24, 2020 to enter commissioning phase.<sup>33</sup>

In June 2021, the MNRE approved a 2.5 – month extension to RE projects which had been expected to reach COD between April and June 2021. This was designed as a relief measure as renewable developers faced various lockdown measures at state level during the second wave of COVID-19 outbreak that lasted from April 1 to June 15, 2021.<sup>34</sup>

# 5. Greece – extension of deadlines for licensing and development of RE projects

In response to COVID-19, in late March 2020 the Greek government adopted a Legislative Act on pandemic support, including (Article 55) extension of regulatory deadlines for the licensing and development of renewables projects.

Specifically, Act granted a six-month extension for any installation licenses and final grid connections due on or before June 30, 2020. Renewables projects selected to receive operating aid through an auction under the new support scheme (Law 4414/2016) were also eligible for a six-month extension for construction and commissioning tests. For similar projects ending between July 1, 2020 and December 31, 2020, a four-month extension was provided.

<sup>&</sup>lt;sup>30</sup> Source: Corona Board. August 23, 2021. Accessed via: https://coronaboard.kr/

<sup>&</sup>lt;sup>31</sup> Source: BloombergNEF, "Siemens Gamesa Retains Top Spot in India as Wind Turbine Market Set to Rebound" August 22, 2021. Accessed via: https://about.bnef.com/blog/siemens-gamesa-retains-top-spot-in-india-as-wind-turbine-market-set-to-

rebound/#: ``: text = 212%20318%202000-, Siemens%20 Gamesa%20 Retains%20 Top%20 Spot%20 In %20 In dia, Turbine%20 Market%20 Set%20 to %20 Rebound&text = India%20 added%201.1%20 gigawatts%20 of, new%20 build%20 in %20 a %20 decade.

<sup>&</sup>lt;sup>32</sup> Source: Government of India, *Office Memorandum No.283/18/2020-GRID SOLAR*. Accessed via: https://mnre.gov.in/img/documents/uploads/file\_f-1587398024891.pdf

<sup>&</sup>lt;sup>33</sup> Source: Reuters, "India grants five-month extension to renewable project completion". August 22, 2021. Accessed via: https://www.reuters.com/article/us-india-renewables-idUSKCN25A26D

<sup>&</sup>lt;sup>34</sup> Source: Government of India, *Office Memorandum No.283/18/2020-GRID SOLAR*. August 22, 2021. Accessed via: https://mnre.gov.in/img/documents/uploads/file\_f-1625031307671.pdf