

CHAPTER 9 ENERGY AND ELECTRICITY

OVERVIEW

The EuroCham Green Growth Sector Committee (GGSC) welcomes and supports the priorities of the Government in managing and developing the energy market in Vietnam. In particular, we applaud the additional emphasis on clean energy in Resolution 55¹ and the visionary stance described therein. The Political Bureau of the Central Committee can be assured of our continued support for this strategy. EuroCham also recognises the commitments that Vietnam made at COP 21 and COP 26 and wishes to contribute to their fulfilment.

Energy impacts all aspects of Vietnam's environment. As such, the approach to developing it may compound or reduce climate and environmental impacts.

We acknowledge Vietnam's impressive and rapid growth of solar and wind power. The expansion of indigenous solar energy reached 27 per cent of national power production capacity by the end of 2020, with 16,500MW of solar installed by this date.²

We also note the growth in demand from power-consuming companies for clean energy for their businesses in Vietnam. Often, this is part of a corporate commitment to 100 per cent clean energy use in the near future. This, in turn, is part of a global movement driven by consumers' expectations. In many Asian countries, a 100 per cent clean energy supply is achievable without financial penalties to the consumer. However, Vietnam has limited mechanisms available to achieve this goal. This impacts upon its attractiveness as a manufacturing location.

The cost of producing clean energy has decreased as markets have reached large-scale around the world, making wind and solar the cheapest power options in global markets. The economic benefits of this trend are visible in Vietnam in areas where solar rooftop utility companies can supply manufacturing consumers with electricity 20 per cent cheaper than the Vietnam Electricity (EVN) tariff. This reduction of operating costs is a major benefit to manufacturers, and we strongly support the continued development of low-cost clean energy in Vietnam.

Electricity produced by coal-fired thermal plants impacts air, water, and land pollution more than energy produced from any other source.³ In the short term, installing more filters in coal-fired plants will reduce emissions. However, in the medium-term, it will be more economical, safe, and strategically resilient to switch to indigenous renewable sources and to seriously engage in energy efficiency. EuroCham would welcome confirmation of the Draft Power Development Plan (PDP) VIII that no new coal power plants will be licensed in Vietnam.⁴ While

1 Politburo's Resolution 55-NQ/TW on 11 February 2020 regarding the Orientation of the Viet Nam's National Energy Development Strategy to 2030 and outlook to 2045.

2 "Overall review of issues related to solar power development", *Vietnam Government Portal*, 23 February 2021. Available at: <<http://baochinhphu.vn/Phat-trien-he-thong-dien-mat-troi/Ra-soat-tong-the-nhung-van-de-lien-quan-den-phat-trien-dien-mat-troi/423954.vgp>>, last accessed on 18 August 2021.

3 "Future air quality in Ha Noi and northern Vietnam", *IIASA Research Report*, October 2018. Available at: <www.iiasa.ac.at/web/home/research/researchPrograms/air/news/Future_air_quality_in_Ha_Noi.pdf>, last accessed on 18 August 2021.

4 "The Ministry of Industry and Trade calling for comments on the Draft National Power Development Planning Project for the period 2021-2030, with a vision to 2045", *Ministry of Trade and Industry*, 21 February 2021. Available at: <www.moit.gov.vn/web/guest/tin-chi-tiet/-/chi-tiet/bo-cong-thuong-xin-y-kien-gopy-du-thao-%C4%91e-an-quy-hoach-phat-trien-%C4%91ien-luc-quoc-gia-thoi-ky-2021-2030-tam-nhin-toi-nam>

there are, of course, ongoing legal commitments, financing them has become much more difficult and has had a negative impact on other projects of developers.⁵ The cost of importing and burning coal is no longer competitive compared to alternative renewable sources.⁶ Furthermore, the fact that coal imports are set to increase dramatically also makes coal-fired thermal plants' energy production strategically vulnerable to pricing and political risks.

It is understood that Liquefied Natural Gas (LNG) is a serious contender to be a bridging source of base-load power production. However, the market conditions for gas and the high absorption by Europe point to a delay in it being used at scale in the next few years.

The recommendations in this chapter reflect the Draft PDP VIII in its most recent form and are in harmony with Vietnam's commitments to the EVFTA.

I. RENEWABLE ENERGY

Relevant authorities: Party's Central Economic Commission (CEC), Ministry of Finance (MOF), Ministry of Industry and Trade (MOIT), Ministry of Planning and Investment (MPI), Office of Government (OOG), Ministry of Agriculture and Rural Development (MARD)

Issue description

Developments in global and regional energy markets have increased the probability of a 2030 energy market more focused on lower-cost renewable energy and less dependent on fossil fuels. This will lead to more diverse, secure, reliable, and affordable energy systems; even more so in markets that have open competition and access to international capital.

A growing number of global corporations are directly purchasing renewable energy from independent power producers in Vietnam. They have also signalled their interest in procuring renewable energy via the proposed Direct Power Purchase Agreement (DPPA) and in producing their own clean energy in larger scale "behind-the-meter" power plants.

The objective of "100% clean energy" is a challenging target. However, it is one that has become commonplace for global companies, including those within the "RE100 Group". To support these initiatives, we would welcome the immediate implementation of the DPPA Pilot Scheme of 1,000 MW capacity – with further expansion after the pilot, or correction of rules if not – and an easing of the regulatory burden on companies wishing to implement clean energy plants on-site "Behind the Meter". Both these measures would help individual companies to achieve their own 100% clean energy supply targets. Electricity from LNG plants will not assist our members in achieving their 100% clean energy goal, since LNG is not a clean fuel from extraction to consumption. Therefore, the rising use of LNG to produce electricity will not increase the attractiveness of Vietnam as a manufacturing location when judged by the clean energy objective.

2045-21618-15.html>, last accessed 18 August 2021.

⁵ Many international banks consider it a serious reputational risk to lend to companies that are engaged in new coal power stations, even if they have already started.

⁶ "Renewable Power Generation Costs in 2018", *International Renewable Energy Agency*. Available at: <www.irena.org/publications/2019/May/Renewable-power-generation-costs-in-2018>, last accessed on 18 August 2021.

Despite this global trend, Vietnam still has more coal thermal power capacity planned or under construction than any other country in Southeast Asia.⁷ It is positive that the draft for PDP VIII sets out technological requirements for coal-fired power plants to use Ultra Supercritical (USC) and Advanced Ultra Supercritical (AUSC) technologies. It also requires them to reduce the impact of local air pollution, minimise their logistical impact, and cut the strategic risks of coal. This implies a conversion of the planned power stations to another fuel or natural source.

It is important to stimulate investment by all power consumers in energy efficient measures to achieve the national energy efficiency strategy goals. For this reason, the contribution of solar, biomass, small hydropower, wind, and offshore wind power within the energy system should be maximised. In particular, redundancy and diversification are key to energy system security and resilience. To halt approvals for any new coal-powered plants and enhance energy security – with the inclusion of natural gas as a transition fuel to temporarily replace coal – the Draft PDP VIII should be implemented. The ambition of the Nationally Determined Contributions (NDCs) in the Paris Agreement 2015 mean that greenhouse gas emission reductions should reflect increased targets for clean energy and better energy efficiency measures. Offshore wind power should be considered the lowest cost, least risky source of base-load large electricity capacity to 2045. We understand that the latest draft of PDP VIII has set a development target of 7GW for Offshore Floating Wind (OFW) power by 2030. This is an ambitious goal, given that Vietnam's OFW industry is still in its infancy. MOIT should consider facilitating the development of offshore wind power by creating an internationally bankable Power Purchase Agreement (PPA) and combining Permits, Licensing, and Master Planning into a single one-stop-shop. It should also consider including the EVN National Power Transmission Corporation (NPTC) and all stakeholders in the development of a Strategic Grid Transmission Plan and allow private financing of the transmission assets to be managed and coordinated by the public energy company. Furthermore, MOIT should consider allowing developers to build their own 220kv and 500kv transmission lines connecting to the national grid, and define the power pricing roadmap for a transparent and efficient auction system that will be in force until at least 2030. In this regard, Vietnam should accept that only those companies/consortia with the financial and technical skills to deliver safe, stable, and cheap energy should be allowed to participate in the auction process. Likewise, it should offer fully defined packages of conditions and permissions that can be implemented immediately after the adjudication of the auction.

Clean energy, together with battery storage, has been shown to provide reliable and cheap electricity in other markets. We have raised this issue of battery storage before, and we welcome MOIT's inclusion of a Battery Storage System (BESS) in the energy mix starting with 50MW in 2025 and increased capacity between now and 2050. However, there is no existing regulatory framework on BESS. We suggest that MOIT should implement EuroCham's recommendations to allow storage on-site with solar power plants, with the relevant documents amended accordingly. In addition, EVN should also investigate the benefits of widespread storage capacity at clean energy plants of all types, including rooftop solar power plants.

We also believe that the contract between EVN and clean energy producers should be amended so that it is in line with international standards to harvest the full cost-reduction

⁷ "Global coal power", *Carbon Brief*. Available at <<https://www.carbonbrief.org/mapped-worlds-coal-power-plants>>, last accessed 18 August 2021.

benefits of the planned auction processes. The industrial and commercial power tariffs likely to be included under PDP VIII should be defined in a clear Roadmap to Power Tariffs to 2025. Furthermore, power consumers should be allowed access to clean energy by implementing DPPAs in pilot schemes and reducing the front-end regulatory barriers to behind-the-meter clean energy plants as intended in the Government's Resolution 68,8 tackling the red-tape challenge in Vietnam.

To enable the grid to service the whole country, it is recommended that the pilot project encouraging private investment in the important power transmission network be expanded, and that investors who meet the requirements to build 220kv and 500kv transmission lines be allowed to do so on their own. In this light, it is also important to promote the benefits to the power transmission and distribution system by continuing to support the growth of rooftop solar power plants.

Finally, MARD's initial pilot scheme of Carbon Payment for Forest Environmental Services (C-PFES) could be expanded to the national level. The financial benefits should continue to be used entirely for increased forest habitat and wildlife protection, provided that it focuses on additional carbon absorption and its medium and long-term results are transparently monitored.⁹ With regard to forests, we are concerned about the felling of trees to export heating pellets, given the high price they have in the market today. Indulging in such temptations to cash-in in the short term will harm Vietnam's environment in the long term.

Potential gains/concerns for Vietnam

Vietnam's electricity system remains over-reliant on power production from hydroelectric plants. Unless improved and able to recharge capacity, these plants will be increasingly affected by variations in rainfall complicated by the impacts of climate change

Importing fuel creates the potential for price inflation. These risks are unwelcoming to consumers and can no longer be absorbed by government mitigation measures. This undermines EVN's efforts to continue supplying low-cost, reliable electricity in increasing volumes.

Constructing new coal thermal and LNG power plants may have the following unwelcome results:

- Relying on fossil-fuel-powered plants poses important risks. These include increased costs for coal and LNG imports and increased transmission and port infrastructure costs that require additional investment and financing.
- Growing imports of fuels will place unnecessary pressure on Vietnam's foreign currency reserves.
- Foreign-owned coal plants set up on a Build-Operate-Transfer (BOT) or a Build, Own, Operate, Transfer (BOOT) basis - both of which may have cost recovery periods greater

⁸ Resolution 68/NQ-CP dated 12 May 2020 of the Government promulgating the Program on the abolishment or simplification of business regulations in the 2020-2025 period.

⁹ "Carbon payment for forest environmental services – C-PFES- A Feasibility Study Identifying Opportunities, Challenges, and Proposed Next Steps for Application of C-PFES in Vietnam", USAID, March 2018. Available at: <https://pdf.usaid.gov/pdf_docs/PA00TQPJ.pdf>, last accessed 29 April 2021.

than 20 years¹⁰ - are especially vulnerable to changes in the cost structure of energy and climate change policy impacts, such as carbon taxes.

- The planned build-out of fossil fuel power plants under PDP VII has had significant social and environmental impacts that were not adequately considered or effectively mitigated, such as ash storage, water consumption, and air pollution.
- Under PDP VII, there have been significant delays, defaults, and failures to deliver fossil fuel power plants on time and within budget. This has resulted in unnecessary pressure on EVN and the reliable, high-quality power supply that power consumers have come to expect.

EuroCham supports a diverse energy market with access to low-cost, international capital that includes a greater focus on renewable energy. Private sector investors have already shown in 2019-2020 that renewable energy can be developed rapidly at a reduced cost with economies of scale, where clear and simple Government policy support exists.

Recommendations

- > Prioritise effective mechanisms to stimulate investment by all power consumers in energy efficiency measures to achieve the national energy efficiency strategy goals. This includes reducing subsidies to electricity prices.
- > Maximise the contribution of solar, biomass, small hydropower, wind, and offshore wind power within the energy system.
- > Revise the contract between EVN and clean energy producers to meet international standards to harvest the full cost-reduction benefits of the planned auction processes in exchange for full take-or-pay provisions:
 - Enhance energy security with the inclusion of natural gas as a transition fuel to temporarily replace coal.
 - Implement the intention to halt any new coal-powered plants in the Draft PDP VIII.
- > Allow power consumers access to clean energy by implementing DPPAs in pilot schemes and by reducing the front-end regulatory barriers to behind-the-meter clean energy plants.
- > Expand the pilot project, encourage private investment in the important power transmission network, and allow investors who meet the requirements to build 220kv and 500kv transmission lines to do so on their own.
- > Define the industrial and commercial power tariffs likely to be applicable under PDP VIII in a clear Roadmap to Power Tariffs to 2025.
- > Increase the ambition of the NDCs on greenhouse gas emission reductions reflecting increased targets for clean energy and better energy efficiency measures.

¹⁰ "Made in Vietnam Energy Plan 2.0", Power and Energy Working Group, *Vietnam Business Forum*. Available at: <http://vepg.vn/wp-content/uploads/2020/06/20191201-MVEP-2.0-ENG-FINAL-standard-page_compressed.pdf>, last accessed on 12 April 2021.

- > Promote the benefits of decreased pressure on the power transmission and distribution system by continuing to support the growth of rooftop solar power plants for self-consumption/local sale.
- > Give priority to the development of offshore wind power.
- > Expand the initial MARD C-PFES pilot scheme to the national level and continue to use the financial benefits entirely for increased forest habitat and wildlife protection.¹¹
- > Allow storage on-site with solar power.
- > Encourage EVN to investigate the benefits of widespread storage capacity at clean energy plants of all types, including rooftop solar power plants.

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¹¹ "Carbon payment for forest environmental services – C-PFES- A Feasibility Study Identifying Opportunities, Challenges, and Proposed Next Steps for Application of C-PFES in Vietnam", *USAID*, March 2018. Available at: <https://pdf.usaid.gov/pdf_docs/PA00TQPJ.pdf>, last accessed 29 April 2021.