



# Policy Brief

For Preparation of Just Energy Transition Partnership  
Implementation in Viet Nam

## FINANCIAL ASPECTS

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10 April 2023

### Disclaimer

*This Policy Brief is prepared by Green Climate Innovation Company Limited (GreenCIC) and reviewed by Perspectives Climate Group (PCG) under the finance support of ETP to meet the request of the Department of Climate Change of Vietnam (DCC) to provide for the background in the early stage of preparing the Outline of the Just Energy Transition Partnership Resource Mobilisation Plan (JETP RMP). The opinions expressed in this publication are those of the authors solely. They do not purport to reflect the opinions or views of the ETP or DCC.*



## Key messages

The key purpose of the Just Energy Transition Partnership (JETP) in Viet Nam is to harness international public and private finance for activities that lead to an accelerated expansion of renewable electricity generation. This then enables the replacement of planned coal power plants with renewable electricity and an accelerated decommissioning of existing coal power plants. These activities need to be in line with the Nationally Determined Contribution's (NDCs) (up to 2030) and net-zero emission (up to 2050) targets. Given the declaration of the International Partners' Group (IPG) of the JETP to mobilise 7.75 billion USD each of public and private international financing that aims to reduce 6.8 GW of coal fired power plant capacity by 2030 and increase wind and solar energy generation from 36% to 47% of total electricity generation, the critical steps to be undertaken are as follows:

- 1. Calculate the investment costs for renewable electricity expansion to generate enough electricity for the replacement of 6.8 GW of coal power by 2030, taking into account needs for grid expansion, funding for covering unemployment of retrenched coal mine and power plant workers as well as their retraining.**

Assuming that coal power plants are run on baseload, the replacement of 6.8 GW requires the generation of about 50 TWh of renewable electricity per year. Assuming an annual plant load factor of 25% for solar and wind combined, about 22 GW of new solar and wind power capacity is required. The current costs per MW of onshore wind and solar reach about 1.2 million USD/MW. The gross financing needs for 22 GW of solar and wind power thus reach about 26 billion USD, so significantly more than the 15.5 billion USD pledged by the IPG.

Given that JETP financing also needs to cover costs for financing grid extension to connect the new renewable power plants, subsidising the livelihoods of coal mining and power plant workers until they have been able to find new jobs as well as retraining workers, it is clear that the actual financing gap for the JETP becomes significantly larger.

The priority for the government of Viet Nam is therefore to refine estimates of the investment needs for the different activity types that are needed to reach the JETP targets for renewable electricity generation and coal power plant replacement. This allows to calculate the funding gap and subsequently embark on analysing how this funding gap could be closed.

- 2. Assess possible funding constellations for different activity types under the JETP.**

The funding structures for greenfield renewable power plants will differ according to the project size and involved companies. Assess the volume of equity and types of debt financing needed, and the commercial availability of debt financing depending on the characteristics of the projects and its promoters. High availability of domestic financing would reduce the need for a concessional source from JETP.

Grid expansion would usually be a task that is commercially unattractive and thus have to be financed through public sources. The same applies to funding for unemployment benefits and retraining of workers. Retirement of coal power plants before the end of their technical lifetime would probably require payments to the plant operators to

cover revenue losses linked to premature retirement. These activity categories would therefore be contingent on receiving grants or highly concessional funding.

The government of Viet Nam should commission specific studies that define the financing structures for all project types under the JETP. The aim of this exercise would be to check whether the amount of international funding pledged under the JETP could be sufficient to achieve the JETP's aim of coal power plant replacement or whether further sources of international finance would be required. This exercise should also state clearly which sources of domestic public and private finance could be available and should be harnessed with which degree of priority.

- 3. Assess possible policy instruments to mobilise finance for the activities needed to achieve the JETP objectives and prioritise them.** The government of Viet Nam principally could use various instruments to leverage domestic and international, public and private finance beyond the finance pledged by the IPG:
  - provide government guarantees for private investment, thereby reducing the cost of debt and enhancing the debt-equity ratio;
  - Introduce a domestic system for the generation of emissions credits whose sale would provide an extra revenue stream for renewable electricity projects, making these projects more attractive for their promoters;
  - Introduce clear legislation for the generation of emissions credits under Article 6.2 of the Paris Agreement, and negotiate specific acquisition deals of Internationally Transferred Mitigation Outcomes (ITMOs) with the governments forming the IPG. If IPG member governments would be willing to buy ITMOs from renewable electricity generation projects under the JETP, the revenue stream could significantly reduce the need for concessional financing components for those projects.
- 4. Assess the need for specific legal provisions to enable high leverage of public and concessional finance:** The government of Viet Nam should commission studies to assess potential legal hurdles to implement the theoretically ideal financing structures of renewable electricity generation projects, grid expansion, unemployment benefits for retrenched coal mine and power plant workers and retraining of workers. These studies should also provide recommendations for legislative and regulatory changes to enable the most effective financing structures.
- 5. Improve enabling environment for and access to green finance:** The government of Viet Nam should increase the liquidity of the secondary market through increased transparency, improved corporate governance, and an improved legal framework for green finance. It is necessary to encourage the participation of investors through the introduction of new financial instruments and products, e.g. green bonds, green index, green certificates, green investment funds, green credits, etc. Specific criteria and a list of green projects for different sectors as well as capacity building for financing institutions are necessary to facilitate the appraisal of green projects under JETP.
- 6. Develop the JETP RMP:** Identify the priority investment portfolio, financing sources and instruments, and a clear roadmap that outlines specific steps and indicative periods for implementation as well as expected outcomes in the JETP-RMP. The RMP

should clearly differentiate which IPG/GFANZ partner provides which amount of funding at what point in time, differentiated by funding type (grant – for projects, technical assistance, etc. -, guarantee, concessional loan – characteristics of loans), Clear terms and conditions on the concessional loans provided by the IPG should also be discussed and specified to ensure compliance with the Law on State Budget and the Law on Public Debt Management, no diversion from Overseas Development Assistance (ODA), and attractiveness of JETP financing that is higher than that of the “normal” capital markets. The JETP-RMP should be as specific as possible regarding the actual projects to be funded, and identify gaps where further project proposals need to be harnessed.

- 7. Ensure close coordination and consultation with relevant stakeholders:** The development of the JETP RMP should include the relevant government institutions Ministry of Planning and Industry, Ministry of Finance, ministries in charge of priority sectors, provinces, the public and private domestic financial sector, the international partners (IPG, Global Financial Alliance for Net Zero (GFANZ), etc.). Especially regarding the grant components, communities who will be affected by the transition need to be heard. Inclusive engagement is an important strategy to ensure a just transition.

## 1. Finance-related statement in the Political Declaration on JETP

In the Political Declaration (European Commission, 2022), Viet Nam considered the JETP as an opportunity to receive support for a “just, equitable and inclusive” transition to achieve the country’s NDCs for the 2021-2030 period and the net-zero emission target by 2050 (paragraphs. 5 & 14). Accordingly, the JETP committed “to mobilise an initial amount of at least 15.5 billion USD over the next three to five years,” including at least 7.75 billion USD of public sector finance and at least 7.75 USD billion in private finance, to support the process (para. 18). The funding will be used to achieve accelerated energy transition actions in Viet Nam as follows:

- Accelerating the decarbonisation of the electricity system from the current net-zero planning peak of 240 MtCO<sub>2</sub>eq. by 2035 toward a peak of no more than 170 MtCO<sub>2</sub>eq. emissions by 2030 (para. 24.b);
- Reducing the project pipeline for coal-fired generation from the currently planned capacity peak of 37 GW toward a peak of 30.2 GW and providing a creditable and ambitious emission reduction pathway to phasing out unabated coal-fired power generation afterwards (para. 24.c);
- Accelerating the deployment of renewable energy from the current plan of 36% toward at least 47% of electricity generation from renewables by 2030 (para. 24.d).

The just elements of the transition process include:

- Ensuring “all of society can benefit from a green transition to increase access to affordable energy” and “meet the needs of those most affected by the green transition, such as workers and communities in sectors and areas affected by the transition” (para. 24.e);
- “Develop[ing] and implement[ing] educational, vocational training and re-skilling programmes to develop necessary skills and competencies and supporting job creation

for labour in sectors and regions affected by the transition, and other forms of support to ensure better living conditions for workers after the transition” (para. 24.f).

The considerations for the financial support for the JETP as stated in the Political Declaration are that (para. 18):

- The finance will be mobilised through “a combination of appropriate financial instruments, which should not divert critical development assistance away from existing development funding” and should be “in accordance with the national framework of public debt and external debt management”;
- The mobilisation of public sector finance “should be on more attractive terms than Viet Nam could secure in the capital markets”;
- The public sector finance will be mobilised by the IPG members in close collaboration with the Viet Nam’s Government;
- The private sector finance will be mobilised by GFANZ Working Group members in close collaboration with the Viet Nam’s Government and the IPG; the private sector will be mobilised through the catalytic public sector finance mentioned above.

Viet Nam’s Government will develop and adopt a JETP Resource Mobilization Plan (JETP – RMP) to mobilise such finance for JETP, which will be “a part of the much larger investment needs for Viet Nam,” (para. 19).

The following aspects of private investment mobilisation are covered in the JETP Political Declaration of Viet Nam:

- “define the role of the private sector and create an enabling environment for businesses to proactively participate in the transformation process, such as de-risking credit, facilitating equity and bank finance, auctioning of permits, speeding up licensing, enhancing competition” (para. 24. g));
- “create opportunities for technological innovation and private investment to drive the creation of green and decent jobs as part of a prosperous low emission economy; and to design mechanisms to assist ensuring affordable electricity for affected, vulnerable and low-income groups;” (para. 24. h))

## 2. Current Country Context

This section briefly presents the current country context in relation to the above-mentioned considerations in the V-JETP Political Declaration.

### **a) Status of investment in mitigating climate change and accelerating the just energy transition**

- *Investments in mitigating climate change*

Over the 2011-2020 period, Viet Nam has made significant progress in mobilising investment for mitigating climate change; the results however were still far from meeting the needs. Among the 55.85 billion USD highlighted by the Ministry of Planning and Investment (MPI) for implementing the Target Programme on Climate Change and Green Growth for 2016-2020, the public investment plan only provided about 24 billion USD in public finance (about 43%), the remainder was mobilised from the private sector. It is thus necessary to narrow the gap between investment needs and actual financial flow through the improvement of policies and

mechanisms to attract investment from state-owned and private enterprises (Ministry of Natural Resources and Environment, 2022, p. 31).

The types of investments needed to mitigate climate change include the following (Ministry of Natural Resources and Environment, 2022, pp. 32–34):

- Public investment: consisting of development investment and finance for a national targeted program to respond to climate change, including both adaptation and mitigation and regular finance for the operation of bodies, agencies for environmental protection, climate change, and sustainable development at central and provincial levels. Overall, the state budget allocated to address climate change in Viet Nam for the 2015-2020 period is about 166.2 trillion VND (about 7 billion USD) annually, accounting for 10.9% of the total state budget and 3% of GDP in 2018, which is higher than the share of other countries in the region like Thailand or Cambodia. However, the share of this budget allocated to mitigation is still limited, representing about 6-10 % of the total climate budget (Ministry of Planning and Investment, 2022, p. 48).
- Official Development Assistance (ODA): Over the 2012-2019 period, ODA for mitigating climate change in Viet Nam reached about 2.26 billion USD annually; however, the flow of ODA in Viet Nam has been decreasing since 2014 as the level of concessionality of loans decreased after Viet Nam became a middle-income country.
- Investment from enterprises: consisting of green loans, green bonds, Foreign Direct Investment (FDI), and Public- Private Partnership (PPP).
  1. Green loans for mitigating climate change in Viet Nam mostly focus on agriculture, renewable energy, and other sectors with a total average volume of about 12.91 billion USD annually in the 2018-2020 period. The loans for the renewable and clean energy sector account for 47% of the total amount of green loans (Vietnam Economic News, 2022).
  2. In 2016, the Ministry of Finance approved a pilot project for issuing urban green bonds, which are used to mobilise finance for green projects such as irrigation, environmental protection, wind power, etc. So far, Viet Nam has issued 564 million USD of green bonds. About 57% of the bond issues were used for renewable energy (Ministry of Finance, 2021).
  3. Viet Nam has been successful in attracting FDI. However, considerations should be given to ensure that the flow of FDI would not result in the increase of greenhouse gas (GHG) emissions from energy-intensive industries like cement, iron and steel, refineries, and coal power.
  4. The PPP Law was approved and took effect from 1 January 2021. So far, about 146 big PPP projects on climate change activities have been implemented in Viet Nam with an estimated value of 2.71 billion USD, of which 2.2 billion USD went to GHG mitigation projects. About 90% of the PPP investment volume was on clean and renewable energy, and the remainder was for urban solid waste management, transport, and water drainage management sectors.

- International and domestic carbon markets: Viet Nam has been strongly participating in the international carbon market under the Kyoto Protocol, ranking fourth globally in terms of the number of registered projects under the Clean Development Mechanism (CDM), covering more than 6,700 MW of renewable electricity generation capacity. Viet Nam has also several projects registered under independent voluntary carbon standards like the Gold Standard (GS) and the Verified Carbon Standard (VCS), totalling about 1,100 MW of renewable electricity that was added to the electricity grid of Viet Nam separately from those from CDM<sup>1</sup>. Viet Nam also established the Joint Crediting Mechanism (JCM) with Japan and is open to negotiations on collaboration with Singapore and Korea for cooperative approaches under Article 6.2 of the Paris Agreement.

There was no comprehensive review of the financial benefit from the carbon market in Viet Nam, but the number of registered projects and issued credits, most of which are from renewable energy, especially hydropower, shows the importance of revenues from international carbon markets in supporting energy transition and GHG mitigation in Viet Nam.

The development of a domestic carbon market in Viet Nam has been defined in the 2020 Law on Environmental Protection and its roadmap has been provided in Decree No. 06/2022/ND-CP of the Government dated 07 January 2022 on GHG mitigation and Ozone layer protection. Accordingly, GHG-emitting facilities that have annual GHG emissions of 3,000 tCO<sub>2</sub> or above shall conduct GHG inventory and develop GHG emission mitigation plans and be subject to allocation of allowances to participate in the domestic emission trading system (ETS). The system is expected to pilot from 2026 and officially operate from 2028. The operation of the domestic carbon market will be an important policy instrument to promote investment into low carbon transition in Viet Nam.

As the JETP aims to accelerate actions towards the achievement of a just energy transition and meet the targets set out in the Paris Agreement, the funding structure for JETP should consider all of the above-mentioned existing sources of climate change finance in Viet Nam that could be harnessed to complement JETP funds. Moreover, different from climate finance which focuses on GHG emission reduction targets, JETP also considers just elements that are crucial but not attractive to private financiers.

- *Investments in just transition*

The just elements as concerned in the JETP Political Declaration with Viet Nam (European Commission, 2022) include “increase[d] access to affordable energy”, “engagement with relevant organisations and stakeholders to help meet the needs of those most affected by the green transition” (para. 24.e), “develop[ment] and implement[tation] of educational, vocation training and re-skilling programs, ... as well as other forms of support to ensure better living conditions for workers after the transition” (para. 24.f).

Currently, the support for increased access to electricity in disadvantageous areas mostly come from public finance (including central and provincial State budget), ODA and

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<sup>1</sup> There are renewable energy projects that are registered under both CDM and international independent carbon standards (about 770 MW)

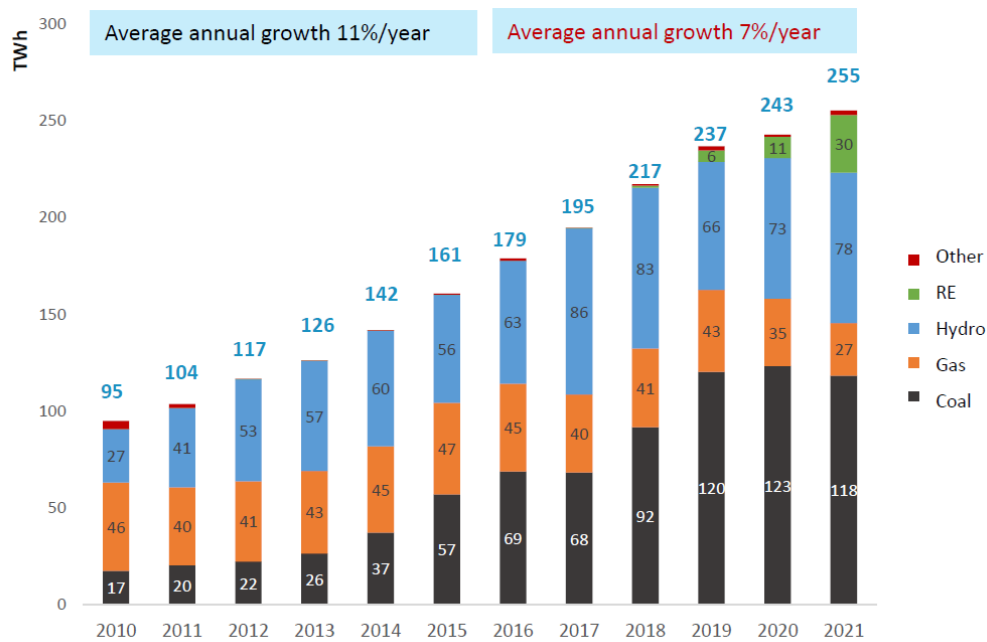
concessional loans, and the capital from the Vietnam Electricity Corporation (EVN), in which the finance from ODA and concessional loans are expected to play a prominent role. For the Target Program for Power Supply in Rural, Mountainous, and Island Areas for the 2016-2020 period for example, the public finance, the ODA and concessional loans, and the capital from EVN was expected to account for 12%, 78%, and 10% of the total investment need of 30,116 billion VND (about 1.3 billion USD) respectively (Prime Minister, 2018). However, the mobilisation of the ODA and concessional loans significantly fell short of the expectation in the Prime Minister's Decision, leading to limited achievements of the Program. According to the review of the State audit, only 18.5% of the total investment need has been mobilised for the Program over the 2016-2020 period. The main reasons were lack of access to finance from ODA and international concessional loans, and delay in the appraisal process (State Audit of Viet Nam, 2023). It is thus necessary for JETP to address these challenges to unlock finance for just transition in Viet Nam.

- Those deemed to be mostly affected by green transition include workers and communities in the coal mining and coal-power generation sectors. According to the Law on Employment (National Assembly, 2013) the Government provides credit incentives from the National Employment Fund and other credit sources to support employment creation and maintain and expand employment as well as support for employment change for workers in rural areas. However, the total capital of the fund for supporting employment creation and maintaining and expanding employment was limited at about 17 billion VND (about 0.7 million USD) up to 31 May 2019 and there has been no additional supply of the capital for the Fund from the State budget since 2016. Most of the support provided by the Fund was for the agriculture sector (Journal of Education, 2019). Besides the Law also established unemployment insurance to compensate part of the income for unemployed workers to support them to receive vocational training or seek new employment opportunities. However, the support from the unemployment insurance shall not exceed 12 month- timeframe and thus to ensure just transition, an inclusive and long-term approach should be considered, which will require significant capital mobilisation, from both public and private sources, both domestically and internationally. *Investments in renewable energy*

The total electricity generation in Viet Nam has been increasing constantly since 2010 to meet the electricity demand for the development of the country. New forms of renewable electricity (mainly solar and wind) have increased significantly since 2019 thanks to the promulgation of a favourable Feed-in-Tariff (FIT) for renewable electricity. However, thermal power and large hydropower are still the biggest sources in the electricity mix.



**Figure 1: Power Generation by sources from 2010-2021**



Unit: TWh

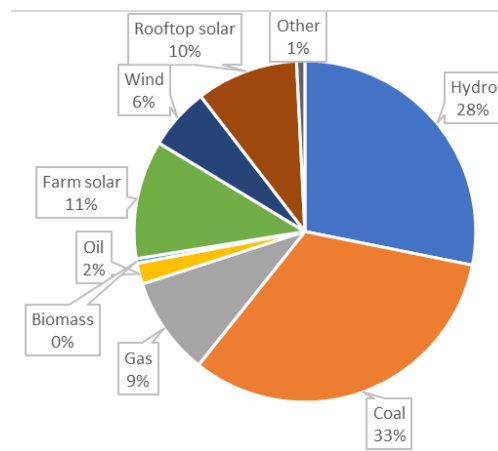
Source: (VIET, 2022, p. 4)

By the end of 2022, the total installed power capacity of the whole system reached 79.35GW of which the total capacity of renewable energy (wind, solar, biomass) sources reached 21.59 GW accounted for 27% and coal-fired power reached 25.82 GW, of 33% of the system (National Load Dispatch Centre, 2023). The scale of Viet Nam's power system has risen to the top in the ASEAN region in terms of power capacity. The following table and figure depict the structure of different power sources in the electricity mix in terms of installed capacity. The mobilisation of such a significant capacity in a short time shows the success of the FIT policy for leveraging investment from the private sector for the development of renewable electricity for Viet Nam during the 2019-2021 period.

**Table 1: Installed capacity of the different power sources in Viet Nam’s electricity system**

Power source	Installed capacity (MW)
Hydro	22,345
Coal	25,820
Gas	7,398
Oil	1,579
Biomass	356
Farm solar	8,907
Wind	4,667
Rooftop solar	7,660
Other	619
<b>Total</b>	<b>79,351</b>

**Figure 2: Structure of electricity system in terms of installed capacity**



Source: National Dispatch Centre, EVN, 2022

The promulgation of FIT policies has significantly boosted the renewable electricity development in Viet Nam, especially for solar and wind power. However, the fast development of renewable energy also raises problems related to grid constraints, i.e. in provinces where large amounts of solar and wind are concentrated, the transmission lines often hit full capacity and many projects have suffered from curtailment. Therefore, the JETP target of accelerating the deployment of renewable energy in Viet Nam needs to consider the financing needs to re-structure the power system to increase flexibility and identify options for electricity storage to increase the sustainability and reliability of the system.

There is however a lack of long-term support policy for solar and wind power projects. Solar power projects that have Commercial Operation Date (COD) from 1 January 2021 and wind power projects that have COD from 01 November 2021 no longer benefit from a FIT. Only on 3 October 2022 the Ministry of Industry and Trade issued Circular 15/2022/TT-BCT defining methods to determine the price range for “transitional” solar wind power plants, i.e. plants that were under active development at the time of FIT expiry. On 7 January 2023, MOIT through Decision 21/QD-BCT defined the maximum tariffs for these plants at a much lower level than the previous FIT. This greatly discourages investors in further development of renewable electricity in Viet Nam:

**Table 2: Feed-in Tariff for transitional solar power and wind power plants**

No.	Type of renewable energy project	Previous FIT (US cents/kWh)	Maximum tariff under Decision 21/QD-BTC (USD cents/kWh*)	Reduction compared to previous FIT (%)
1	Ground mounted solar plant	7.09	5.05	29
2	Floating solar power plant	7.69	6.43	16
3	Rooftop solar	8.38	-	
4	On-shore wind power plant	8.5	6.77	20
5	Off-shore wind power plant	9.8	7.74	21

\* at exchange rate 1 USD = 23,452 VND

Source: (MOIT, 2023), (The Prime Minister, 2020), (The Prime Minister, 2018)

Most renewable power projects in Viet Nam so far have been developed by domestic companies. According to the Mekong Infrastructure Tracker, 58% of projects were developed entirely by Vietnamese companies, another 27% by a Vietnamese company with an international partner, and only 12% without a Vietnamese project partner (IUCN, 2022). Unlocking international finance for the energy transition is thus important under JETP.

- *Investment in coal transition*

Viet Nam's electricity industry relies heavily on coal; installed capacity has quadrupled in a decade, from 5 GW in 2010 to 20 GW in 2020, making the power sector the largest source of GHGs in Viet Nam (Kieu Mai, 2022).

The main challenges for the decommissioning of coal power in Viet Nam are financing and the appropriate measures for the transition process. Since 67% of the existing coal-fired power plants (CFPPs) in Viet Nam are under 10 years old and only 12% are more than 30 years old, finance will be an issue for early coal retirement because it usually takes about 30-40 years for a CFPP to retire. Regarding the measures for coal transition, fuel switching is currently the main strategy identified in the draft PDP8. This trajectory, however, needs further assessment in terms of technical and economic feasibility, including the supply of alternative fuels (biomass/ammonia) to co-fire CFPPs at such a large scale. Given the high prices for hydrogen and ammonia, cofiring is also commercially unattractive.

As the coal transition is a new initiative and the alternative technology measures are not yet mature, current support is mainly provided by multi-lateral financial institutions or development partners in the form of technical assistance. Some international donors have initiated support for Viet Nam to speed up the transition process. In June 2022, the Energy Transition Mechanism Partnership Trust Fund (ETMPTF) was established by the Asian Development Bank, which is a multi-partner trust fund to mobilise resources to accelerate the process of decommissioning CFPPs in developing member countries. For the pilot period, in the first two years, the early phase down of the coal plants will be taken place in the Philippines, Indonesia, and Viet Nam. As of November 2022, related activities have been carried out in Indonesia and the Philippines (Asian Development Bank, 2022).

The Southeast Asia Energy Transition Partnership (ETP) is also supporting the Government of Viet Nam to review the coal abatement scenarios to reduce the projected use of coal in the power development plan and to encourage the use of domestic renewable energy resources to decarbonise the energy sector. ETP also supports Viet Nam to formulate a transparent and

sustainable roadmap for coal phasing-down at the coal-fired power plants managed by the state-owned enterprises in the energy sector toward net-zero emission by 2050 (Energy Transition Partnership, 2022).

UNDP is also supporting a study to assess current and planned coal-thermal electricity generation in Viet Nam and assess scenarios of taking coal-thermal power generation in Viet Nam to net-zero GHG emissions by 2050 (UNDP, 2022).

Announcement on support for coal decommissioning was made by the Asian Development Bank, Citi Bank, HSBC, and Prudential to buy and retire existing CFPPs before the end of their lifetime (Lien Hoang, 2021). As mentioned above, further assessment should be performed on the acceptance of the stakeholders and the technical and economic feasibility of the decommissioning solutions.

The Rockefeller Foundation and the Global Energy Alliance for People and Planet (GEAPP) are conducting a study on Accelerated Coal Transition Carbon Credits (ACTCC) solutions in Indonesia and Viet Nam. The project aims to pilot an appropriate use of climate finance to accelerate the coal transition by exploring the challenges and opportunities of using innovative sources of climate finance to accelerate CFPP decommissioning. More broadly, the project seeks to demonstrate that carbon markets can play a role in bringing forward CFPP retirement dates and where additional funds are needed to make the just clean-energy transition viable. This is also in line with the new methodology that the Gold Standard is planning to develop for the early phase-out of coal plants and a just transition to renewable energy generation (Gold Standard, 2023). The revenue from the carbon market, therefore, can play a role in accelerating the coal transition under JETP.

#### **b) Financing needs for Viet Nam to achieve the NDC's and net-zero emission targets**

The financial needs for Viet Nam to achieve the NDC's and the net-zero emission targets were indicated in the second updated NDC in 2022 and the technical study in the development of the National Climate Change Strategy (NCCS) to 2050 as follows:

**Table 3: Financial needs for Viet Nam to achieve NDC (2021-2030)**

Sector	NDC's unconditional target			Contribution from international support			NDC's conditional target		
	Reduction compared to BAU (%)	Reduction compared to BAU (MtCO <sub>2</sub> eq)	Financial need (million USD)	Reduction compared to BAU (%)	Reduction compared to BAU (MtCO <sub>2</sub> eq)	Financial need (million USD)	Reduction compared to BAU (%)	Reduction compared to BAU (MtCO <sub>2</sub> eq)	Financial need (million USD)
Energy	7	64.8	14,464.40	17.5	162.2	46,097.00	24.4	227	60,561.40
Agriculture	1.3	12.4	2,122.80	4.1	38.5	13,979.40	5.5	50.9	16,102.20
LULUCF*	3.5	32.5	3,927.40	1.5	14.1	1,567.40	5	46.6	5,494.90
Waste	1	8.7	916.6	2.2	20.7	1,809.50	3.2	29.4	2,726.10
IP	3	27.9	310	2.4	21.9	1,640.20	5.4	49.8	1,950.10
<b>Total</b>	<b>15.8</b>	<b>146.3</b>	<b>21,741.20</b>	<b>27.7</b>	<b>257.4</b>	<b>65,093.40</b>	<b>43.5</b>	<b>403.7</b>	<b>86,834.70</b>

Note (\*): increasing GHG removal

Source: (Government of Viet Nam, 2022, p. 10)

**Table 4: Financial needs for Viet Nam to achieve net-zero emission by 2050**

Sector	2030 target		2050 target		Financial needs (million USD)		
	Emission reduction compared to BAU (%)	Absolute emission reduction (MtCO <sub>2</sub> eq)	Emission reduction compared to BAU (%)	Absolute emission reduction (MtCO <sub>2</sub> eq)	2021-2030	2031-2050	2021-2050
Energy	32.6	457	91.5	101	65,412.70	189,602.30	255,015.00
Agriculture	43.0	64	63.1	56	15,313.80	7,487.80	22,801.60
LULUCF	70	-95	90	-185	3,477.00	22,869.00	26,346.00
LULUCF*	20		30				
Waste	60.7	18	90.7%	8	5,509.70	21,762.40	27,272.10
IP	38.3	86	84.8%	20	3,522.10	45,870.40	49,392.50
<b>Total</b>	<b>43.5</b>				<b>93,235.30</b>	<b>287,591.90</b>	<b>380,827.20</b>

Note (\*): increasing GHG removal

Source: (Ministry of Natural Resources and Environment, 2022, pp. 231, 232)

According to the above tables, the estimated financial needs for Viet Nam to achieve the energy-related parts of the NDC for the 2021-2030 period and net-zero emission by 2050 would be 60.6 billion USD and 255.5 billion USD respectively. The committed finance under the JETP, if successfully mobilised, could thus represent about 26% of the financial needs for Viet Nam to achieve its energy-related NDC and 6% of the financial needs to achieve the energy-related part of Viet Nam's net-zero emission target, that is not to mention the targets for accelerated actions and just transition. JETP finance is thus only a small share of the finance needed by Viet Nam.

This message is reinforced by a short back of the envelope calculation of the reach of JETP committed resources for sufficient renewable electricity generation to replace 6.8 GW of coal power capacity (see the section on gap assessment below).

### **c) National framework of public debt and external debt management**

For developing countries like Viet Nam, public debt is necessary for raising capital, meeting investment needs, and encouraging production. It is important that caution is exercised to ensure that it does not become a hindrance or pose a threat to the sustainable development of the economy.

The public debt of Viet Nam includes government debts, sovereign-guaranteed debts, and provincial debts. Over the past few years, Viet Nam has successfully controlled its public debt by improvement of the state management on this aspect. The public debt of Viet Nam has decreased from 61.4% of GDP in 2017 to 43.1% of GDP in 2021. Against a GDP of 368 billion USD in 2021, Viet Nam's public debt last year was 157 billion USD (Viet Nam News, 2022).

On 28 July 2021, the National Assembly adopted Resolution No. 23/2021/QH15 regarding national financial borrowing and public debt repayment plan for the 2021-2025 period and set the goals for the national financial plan on borrowing and payment of public debt for the 2021-2025 period. Accordingly, the country's annual public debt ceiling shall not exceed 60% of GDP, with a warning level of 55% of GDP. The national foreign debt annually shall not exceed 50% of GDP, with a warning level at 45% of GDP.

It is crucial for the implementation of the JETP in Viet Nam to comply with the above-mentioned national framework of public debt and external public debt management through the following measures:

- Ensuring a sufficient share of grants of the promised finance to catalyse the private investment through creating/improving the enabling environment and to support just transition activities such as skills training, income protection, social inclusion, etc.
- Ensuring concessional loans with terms substantially more advantageous than market-related loans, mainly through lower interest rates, longer grace and repayment periods, etc. in order to mitigate challenges, risks, lower cost of financing for innovative technologies or catalysing additional investment from the private sector to scale up the just energy transition actions.

The JETP-RMP of Viet Nam should thus be developed with specific volumes of investment needs, identified sources and financing instruments as well as relevant financing principles, criteria, and conditions.

#### **d) Enabling environment for financing just energy transition in Viet Nam**

As earlier mentioned, with the FIT policy, private investment has played a key role in the development of renewable electricity, especially solar and wind power for Viet Nam during the 2019-2021 period. There is however a need to mobilise further massive investment from the private sector to meet JETP objectives. A common method for investors, especially international ones, to indirectly invest in Viet Nam is via the securities markets.

The securities or capital markets in Viet Nam are divided into two categories: i) the primary market, where newly issued securities are sold and bought; and ii) the secondary market, where securities are sold or bought after the stock is sold at the primary market. The secondary markets in Viet Nam include the Hanoi and Ho Chi Minh City Stock Exchanges and the OTC trading market.

A developed and liquid secondary market will have significant positive impacts on long-term investment of the investors since they can easily sell or buy stocks or bonds to reduce investment risks (long-term financing channel often comes from the bond market). However, the secondary markets in Viet Nam remain limited supply and low liquidity due to the following reasons:

- *Small scale of the market*: this also means small investment opportunities for investors. There are few renewable energy projects issuing bonds or stocks in the market and thus market transactions are also limited.
- *Lack of confidence in the market*: investors may be hesitant to participate in the secondary market due to worries over the ups and downs of the market, its lack of transparency, and poor corporate governance. It is even worse in the renewable energy sector due to limited supply, leading to unpredictable liquidity and difficulties in defining the price of the stocks.
- *Legal barriers*: The general legal framework for the stocks market and bonds market in Viet Nam is deemed sufficient. However, it still fails to meet the needs in actual practices. There is a lack of detailed and clear guidance to attract investors into the

market, especially in the renewable energy sector. This is a limitation for the development of the secondary market in Viet Nam.

Another channel for financing renewable energy projects is through the banking system. However, the limited source of long-term funding prevents commercial banks from financing these types of projects. Another challenge is their lack of necessary in-house technical expertise in credit appraisal for the renewable energy sector, thereby increasing their perceived risks (Le Ngoc Dang & Farhad Taghizadeh-Hesary, 2019). This also applies to green finance which requires different methods for credit appraisal to ensure the environment/climate change mitigation/ sustainable development benefits of the projects.

**e) Successful experiences in Viet Nam**

- *Deep dive: The success of the solar PV feed-in-tariff*

Viet Nam’s framework of public and private stakeholders has been extremely successful in promoting the development of the solar PV sector between 2019 and 2021. The government has played a crucial role in providing the necessary policies, regulations, and incentives to attract private sector investment in the solar PV industry by setting ambitious targets for the share of renewable energy.

According to the Renewable Energy Development Strategy (The Prime Minister, 2015), the targeted percentage of renewable energy in the total primary energy consumption in 2030 should reach around 32.3% and up to around 44% by 2050. The Strategy set the objective to bring the percentage of power produced from solar power in the total production power from 2015 to around 6% by 2030 and around 20% by 2050.

To achieve the above targets, the government has implemented a series of policy measures, including feed-in-tariffs (FITs), tax incentives, credit support, land rent incentives, etc. The solar PV FIT program has been one of the key drivers of the growth of the solar PV industry in Viet Nam.

**Table 5: Feed-In-Tariff for solar power in Viet Nam**

Feed-In-Tariff for solar power in Viet Nam	Regulation	Year	Notes
9.35 US cents/kWh	Decision 11/2017/QD-TTg of the Prime Minister	2017	led to a massive and rapid increase in installed capacity with 4.7 GW of solar power connected to the grid in 2019  Revised in 2020
7.09 US cents/kWh for on-shore solar projects and 7.69 cents/kWh for off-shore solar projects, 8.38 cents/kWh for roof-top solar	Decision 13/2020/QD-TTg of the Prime Minister	2020	Take effect from 22 May 2020 and apply for projects that receive approval of the investment policy before 23 November 2019 and have COD from 01 June 2019 to 31 December 2020

**Table 6: Other investment incentives to promote renewable electricity generation development**

Incentive	Regulations	Year	Details
Reduced corporate income tax	Law on Corporate Income Tax (Law no. 32/2013/QH13)	2013	<ul style="list-style-type: none"> <li>New investment projects will be subject to a reduced corporate income rate of 10% for the first 15 years of the project</li> </ul>
Land-related incentives	Decree 46/2014/ND-CP	2014	<ul style="list-style-type: none"> <li>Exemption from land use fees for 11 years or 15 years if the project is in a region facing “extreme socio-economic difficulties”</li> <li>Exemption from land and water surface rents during capital construction</li> </ul>
Import duty relief	Circular 83/2016/TT-BTC	2016	<ul style="list-style-type: none"> <li>Exemption from import duties for goods used to construct or form fixed assets as part of a renewable energy project</li> </ul>

The above policies have resulted in a significant increase in the installed capacity of solar power in Viet Nam in the past few years. Before 2019, there were no solar power plants above 110 kW. However, within the first 6 months of 2019, 89 solar power plants with a total installed capacity of 4,550 MW have been connected to the grid (Dong A, 2020) which has gone far beyond the target of the total installed capacity of 850 MW solar power by 2020 in the revised national Power Development Master Plan VII. Even in Viet Nam’s first NDCs submitted in 2015, the mitigation scenario for solar power development stated a planned solar power capacity of just 2,000 MW by 2030. At the end of 2022, the total installed power capacity of solar power reached 16,567 MW accounting for 21% of the total installed capacity of the national grid.

The success of the solar PV FIT program can be explained by several factors: firstly, the FIT program provides a clear and transparent pricing mechanism, which reduces uncertainty for investors and encourages them to invest in the solar PV sector. Secondly, the FIT program provides a long-term revenue stream to renewable energy project owners by selling the generated electricity to the grid, which mitigates the risk associated with volatile electricity prices. Thirdly, the FIT program has been well-designed to ensure that it is financially sustainable, with the FIT rates being adjusted periodically to reflect changes in the cost of electricity generation as well as the support of the Government. Fourthly, the different FIT prices applied to different power generation technologies provide development opportunities for a variety of solar projects (floating solar power, ground-mounted solar power, and rooftop solar power).

Overall, Viet Nam’s framework of public and private stakeholders, coupled with the successful implementation of the solar PV FIT program, has created a conducive environment for the growth of the solar PV industry in Viet Nam. The success of the solar PV FIT program has attracted significant private sector investment in the sector, which has helped to create jobs, reduce GHG emissions, and increase access to clean energy in Viet Nam.



However, the FIT has also suffered from challenges essentially linked to its overly high attractiveness: the government has been unable to control the number of new, incoming solar power projects to be in line with the development plan of the power system including grid expansion; FIT prices have not been adjusted downwards when solar power costs fell dramatically, leading to high rents for project developers and a race to set up projects as quickly as possible. Therefore, we recommend the following

- In order to make adjustments that align with practical requirements and the target for solar power development, it is necessary to thoroughly evaluate whether FITs for new projects are aligned with current solar power costs and to adjust FITs regularly over time, but in a transparent manner. FITs granted for past projects should not be changed retroactively during their lifetime.
- It is necessary to improve the management and implementation of the Power Development Plan including the calculation of actual output of solar power projects which have been built. This is one of the factors that help the Government to adjust policies to attract or reduce new investment in solar power projects avoiding waste due to significant curtailment.

There are other examples of financing instruments that have been successful in Viet Nam, namely,

- ODA: including grants or loans with preferential conditions from other governments (such as Japan, Korea, France, UK, etc.), and international financial institutions (World Bank, Asian Development Bank, etc.). Since 1993, Viet Nam has been receiving ODA from international donors. Over the course of 20 years, this assistance has been instrumental in transforming Viet Nam into a middle-income country. The benefits of this resource are particularly apparent in the transportation sector, where the country's roads, hospitals, and schools in rural and mountainous areas have been significantly improved. Large-scale investments have also enabled the development of seaports and airports. ODA funds have played a crucial role in driving economic growth and improving the living standards of people who have limited access to domestic capital. The government places special emphasis on financing areas such as natural disaster risk prevention, loss, and damage reduction, adaptation to climate change, environmental protection, green economic growth, and technological innovation through ODA funding.
- Provision of government guarantees to enterprises: for industries and fields that need large-scale investment, but domestic banks cannot meet their borrowing requests or enterprises have reached the limit of loans from banks. If an enterprise has a viable project that meets certain criteria, the Ministry of Finance can issue a government guarantee on its behalf to secure capital from domestic or foreign commercial banks for project implementation. In the past, the Ministry of Finance has provided such guarantees to enterprises such as Viet Nam Airlines for acquiring aircraft through overseas borrowing, and to EVN for constructing large-scale power plants through borrowing from both domestic and foreign banks. This approach is a valuable means by which the government can support enterprises engaged in substantial projects that contribute to the country's social and economic development.

- Public Private Partnerships (PPP): is a collaboration between a government agency and a private sector company through a contract in which they agreed to finance, build and operate projects mostly on infrastructure development and public services. This structure has been applied in Viet Nam since 2015. Viet Nam's increasing demand for infrastructure investment has outstripped the limits of its state budget, leading to a shift towards financing projects through the PPP model. This approach has been particularly critical given the changing nature of external funding sources, which have evolved as Viet Nam has become a middle-income country. In recent years, numerous highway projects have been developed under the PPP framework. To further facilitate private sector investment, the National Assembly enacted the Law on Public-Private Partnership in 2020, which provides a clear legal framework for this type of financing and came into effect in 2021.

The above-mentioned historically successful financing structures in Viet Nam show the necessity for the V-JETP- RMP to combine different instruments to be tailored to the specific needs of the country. For example, large-scale infrastructure projects may need to rely on a combination of public and private financing, while small-scale projects might be supported by grants and concessional loans provided by development partners or even by the private sector. This will also involve a focus on capacity building and technical assistance to support the just transition through grants.

### 3. Lessons Learnt from South Africa on the Financial Aspect of JETP

Out of the three countries that have entered into JETP with the IPG, only South Africa (SA) has established an Investment Plan (IP) specifically aimed at facilitating a just energy transition (JET). From the beginning, South Africa's JET IP stressed that "the success of the JET IP will depend on the scale and availability of concessional finance, including grants from relevant sources," (The Presidency, 2022, p. 14).

South Africa's JET IP modelled that a total of 98.7 billion USD would be needed over a five-year period (2023-2027) to aid in South Africa's transition. Of this amount, according to the Political Declaration, the IPG will provide 8.5 billion USD which will cover the following sectors: infrastructure, planning and implementation capacity, as well as the "just elements" skills development, economic diversification, and innovation and social investment and inclusion (The Presidency, 2022). The "just elements" only make up 0.58% of the 8.5 billion USD, with the rest allocated to infrastructure and planning and implementation capacity. These are often the hardest to fund and cannot raise capital in conventional markets, therefore they should be given priority for grants.

The financing instruments of South Africa's JET IP include a range of instruments, including grants, concessions, and commercial loans, and guarantee instruments. The image below provides an overview of the sources and financing instruments that make up IPG's offer.

As it is evident, a significant proportion (63%) of the finance committed by the IPG will be disbursed in the form of concessional loans. However, the terms and conditions of these financing arrangements remain unclear in the JET IP, and it's not clear whether these terms would be more favourable than those offered by the commercial capital markets.

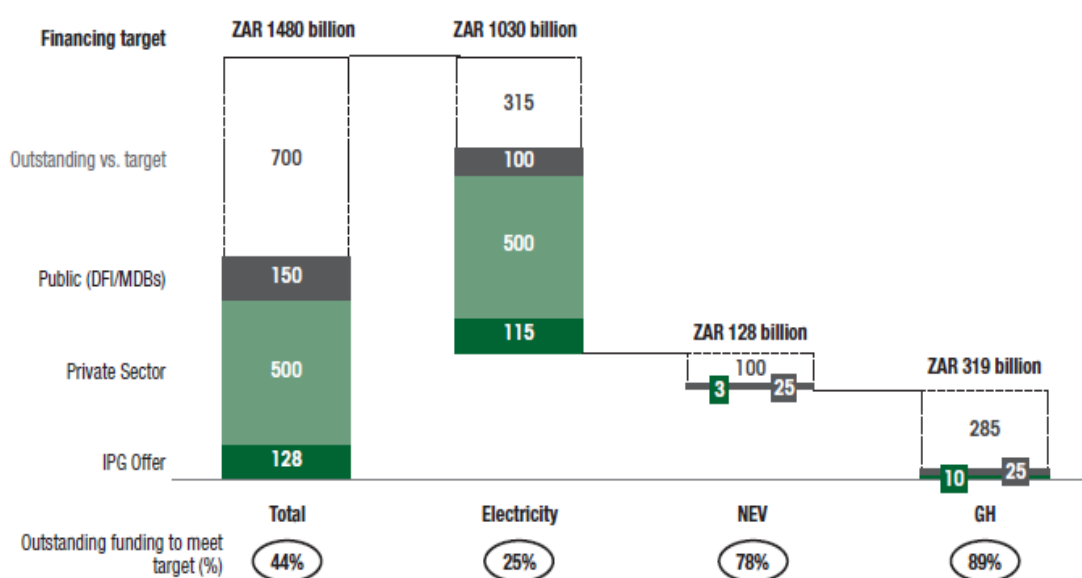
Table 7: Sources and financing instruments of the IPG offer

US\$ millions	Grants / TA	Concessional Loans	Commercial Loans	Guarantees	Total (source)
CIF/ACT (\$500m to leverage an additional \$2.1 bn)	50	2 555	0	0	2 605
European Union – EIB	35	1 000	0	0	1 035
France	2.5	1 000	0	0	1 002.5
Germany	198	770	0	0	968
United Kingdom	24	0	500	1 300	1 824
United States <sup>141</sup>	20.15	0	1 000	0	1 020.15
<b>Total (Instrument)</b>	<b>329.7</b>	<b>5 325</b>	<b>1 500</b>	<b>1 300</b>	<b>8 455</b>

Source: (The Presidency, 2022, p. 129)

The JET IP also provides a detailed overview of the funding requirements per sector, which include: the electricity sector, new energy vehicle (NEV) sector, green hydrogen sector, skills development, and municipal capacity. The figure below provides an overview of the availability of funding per sector and source, alongside the outstanding funding to meet targets.

Figure 3: Projected funding needs for SA-JET and estimated availability, by source and sector



Source: (The Presidency, 2022, p. 124)

The cornerstones of the SA-JET IP include:

- “Strong governance arrangements to ensure leadership, oversight, transparency, safeguards, and accountability;
- Robust management arrangements for planning, performance, reporting, and communications;
- Monitoring, Evaluation, and Learning Framework for the measurement of success and continuous improvement, and
- Risk Management Framework for identifying potential risks and implementing mitigation measures to reduce material risks to the JET IP,” (The Presidency, 2022, p. 17)

It is worth noting that financing has been an integral component of several studies conducted since 2020 to facilitate the just transition of South Africa as part of the JETP preparation. These studies include:

- South African Climate Finance Landscape 2020 (January 2021),
- The Just Transition Framework for South Africa (December 2021),
- Social Impact Bonds in South Africa: The Risks of Returns of Innovative Finance for Social Change (April 2021),
- Financing South Africa’s Just Energy Transition: Capital Market Development to Scale Private Sector Mobilisation (November 2022) and
- Funding social justice in the energy transition: A Role for Private Sector Financing at Scale?” (March 2023).

The coordination for the preparation of South Africa’s JET IP and negotiation with the IPG was led by a high-level entity called the Presidential Climate Commission (PCC). The PCC is comprised of ten government ministers, including the Minister of Finance, Minister of Planning, Monitoring and Evaluation, and sector-specific ministers, the Commission also includes representatives from labour, academia, advocacy groups, civil society, research institutions, youth, business, and traditional leadership, totalling 21 members. The diverse composition is critical to ensuring representation of various stakeholders involved in the just transition, and that their needs were fully considered in the development of the JET IP.

#### 4. Gap Assessment for JETP in Viet Nam

The review of the financial aspects mentioned in the Political Declaration of the V-JETP and the current country context related to financing and investment as well as the lessons learnt from South Africa’s JET IP shows the following gaps for Viet Nam in achieving the objectives for JETP:

- **Gaps in financial needs and mobilisation commitment for JETP:**

A rough estimation already shows that the current amount committed to be mobilised for JETP with Viet Nam would be far to meet the financial needs of the country to achieve the targets set in the Political Declaration.

Taking the target to reduce the project pipeline for coal-fired generation from the planned capacity peak of 37 GW to 30.2 GW for example, assuming that coal power plants are run in

baseload, replacement of 6.8 GW requires generation of about 50 TWh of renewable electricity per year. Assuming an annual plant load factor of 25% for solar and wind combined, about 22 GW of new solar and wind power capacity is required. The current costs per MW of onshore wind and solar reach about 1.2 million USD/MW. The gross financing needs for 22 GW of solar and wind power thus reach about 26 billion USD, so significantly more than the 15.5 billion USD pledged by the IPG.

Given that JETP financing also needs to cover costs for financing grid extension to connect the new renewable power plants, subsidising the livelihoods of coal mining and power plant workers until they have been able to find new jobs as well as retraining workers, it is clear that the actual financing gap for the JETP becomes significantly larger.

- **Gaps in accessibility to different sources of finance and ensuring advantageous terms and conditions**

Existing grid infrastructure shows a lack of capacity to absorb a large amount of electricity generation from renewable sources in some key provinces (Binh Thuan, Ninh Thuan, Lam Dong, Khanh Hoa, Phu Yen, Binh Dinh, Gia Lai), affecting the safe and stable operation of the electricity system (Government News, 2023). To increase renewable electricity capacity under JETP, it is necessary not only mobilise finance for developing renewable power plant projects but also for improvement of the grid system for such highly variable energy sources.

The funding structures for greenfield renewable power plants differ according to the project size and involved companies. It is necessary to assess the volume of equity and types of debt financing needed, and the commercial availability of debt financing may vary depending on the characteristics of the projects and its promoters. High availability of domestic financing would reduce the need for a concessional source from JETP.

Grid expansion, on the other hand, would usually be a task that is commercially unattractive and thus have to be financed through public sources. The same applies to funding for unemployment benefits and retraining of workers. Retirement of coal power plants before the end of their technical lifetime would probably require payments to the plant operators to cover revenue losses linked to premature retirement. These activity categories would therefore be contingent on receiving grants or highly concessional funding.

- **Gaps in policy instruments to mobilise private finance for activities under JETP**

There is a lack of clarity in the current policy for determining the tariff for renewable electricity after the expiration of the FIT policy. The ceiling price for transitional wind power and solar power plants is not yet attractive to investors, let alone the risk in the currency exchange (the current tariff is regulated in VND instead of USD in the previous policy). Further incentives should be provided to increase the rate of return on investment in renewable electricity generation in the future.

International and domestic carbon markets can provide an additional source of revenue to promote coal transition and renewable electricity development in Viet Nam, as shown by the CDM under the Kyoto Protocol. The regulations for the generation of carbon credits under Article 6 of the Paris Agreement are not yet developed in Viet Nam. Regulations for the domestic carbon market are only expected from 2025.

- **Gaps in the formulation of the legal provisions to leverage public and concessional finance**

Apart from a 50%-50% split between public and private sector finance, there is not yet a specific indication of the sources and funding instruments of the 15.5 billion USD committed for Viet Nam under JETP. It is necessary that the Government of Viet Nam and the IPG provide further clarification on these. Lessons learnt from South Africa's JET IP show that the enabling environment and just elements should be paid special attention to funding, especially regarding scarce grants. Moreover, clear terms and conditions on the concessional loans provided by the IPG should also be discussed and specified.

- **Gaps in enabling environment for just transition finance**

Given sufficient finance is provided for just energy transition in Viet Nam, there is still a need to create an enabling environment to ensure such finance from different sources, especially from international and private ones is able to flow easily into the domestic capital market.

The absence of deep and liquid secondary markets raises constraints over the availability of long-term financing for energy transition projects.

The domestic financing institutions lack long-term deposits as well as necessary in-house technical expertise for credit appraisal for green projects.

- **Gaps in the development of JETP RMP:**

Viet Nam does not yet carry out relevant in-depth studies on the financing aspect of JETP. The experience from SA shows that this process took about three years from incubation to the official release of the JET IP. Viet Nam should initiate in-depth studies on several aspects of JETP, including financing, to have a clear view of the financial landscape and current capital markets in Viet Nam, the drivers of investment flows, the role of the private sector, alongside the prioritisation of sectors and development of the investment portfolio.

- **Gaps in coordination with relevant stakeholders for formulation and implementation of JETP**

Current discussions on JETP are mainly conducted at a ministerial level. There is thus a need to establish a high-level body to coordinate and supervise the development of the JETP RMP. The negotiations on the financing aspect of the JETP require active involvement of the Ministry of Finance, Ministry of Planning and Investment as well as relevant Ministries in charge of the priority sectors under the JETP together with the Ministry of Natural Resources and Environment and provinces. Moreover, stakeholders who will be affected by the transition, including labour, academia, business, etc. need to be involved and given a platform to voice their needs and concerns.

- **Other considerations**

Current discussions have failed to include a monitoring and evaluation framework as well as risk management for the JETP. Addressing these gaps will be essential for Viet Nam to develop a comprehensive financing section in the JETP RMP to achieve the JETP objectives.

## 5. Recommendations for the development of JETP Resource Mobilisation Plan and next steps

### a) Recommendations

The financing required for the JETP should be viewed as part of the broader financing needs required for Viet Nam to achieve its NDC and net-zero emission targets and to enable a just energy transition. To match the objectives of V-JETP and such financing needs the following recommendations are identified to fill the gaps identified in the previous section:

Gaps	Recommendations
Financial needs and mobilisation commitment for JETP	To refine estimates of the investment needs for the different activity types that are needed to reach the JETP targets for renewable electricity generation and coal power plant replacement. This allows to calculate the funding gap and subsequently embark on analysing how this funding gap could be closed.
Accessibility to different sources of finance and ensuring advantageous terms and conditions	To commission specific studies that define the financing structures for all project types under the JETP. The aim of this exercise would be to check whether the amount of international funding pledged under the JETP could be sufficient to achieve the JETP's aim of coal power plant replacement or whether further sources of international finance would be required. This exercise should also state clearly which sources of domestic public and private finance could be available and should be harnessed with which degree of priority.
Policy instruments to mobilise private finance for activities	<ul style="list-style-type: none"> <li>• To provide government guarantees for private investment, thereby reducing the cost of debt and enhancing the debt-equity ratio;</li> </ul>

	<ul style="list-style-type: none"> <li>• To introduce a domestic system for the generation of emissions credits whose sale would provide an extra revenue stream for renewable electricity projects, making these projects more attractive for their promoters;</li> <li>• To introduce clear legislation for the generation of emissions credits under Article 6.2 of the Paris Agreement, and negotiate specific ITMO acquisition deals with the governments forming the IPG. If IPG member governments would be willing to buy ITMOs from renewable electricity generation projects under the JETP, the revenue stream could significantly reduce the need for concessional financing components for those projects.</li> </ul>
Formulation of legal provisions to leverage public and concessional finance	To commission studies to assess potential legal hurdles to implement the theoretically ideal financing structures of renewable electricity generation projects, grid expansion, and unemployment benefits for retrenched coal mine and power plant workers, and retraining of workers. These studies should also provide recommendations for legislative and regulatory changes to enable the most effective financing structures.
Improvement of access to green finance	<p>To set up an integrated green financial policy framework, including credit, refinancing, fiscal, and financing policies for green projects</p> <p>To introduce new financial instruments and products, i.e. green bonds, green index, green certificates, green investment funds, green credits, etc.</p>
Improvement of the secondary market	<p>To increase the transparency of the market, improve corporate governance, and continue to improve the legal framework.</p> <p>To encourage participation from investors to increase the liquidity of the market through awareness raising, and information sharing.</p> <p>To encourage private investment through the issuance of green bonds.</p>
Strengthening the capacity of domestic financing institutions	<p>To develop specific criteria and a list of green projects for different sectors to facilitate the appraisal process</p> <p>To provide capacity building for financing institutions for appraisal of green projects</p>
Development of JETP RMP	To identify the priority investment portfolio, financing sources and instruments, and a clear roadmap that outlines specific steps and indicative periods for implementation as well as expected outcomes in the JETP-RMP. The RMP should clearly differentiate which IPG/GFANZ partner provides which amount of funding at what point in time, differentiated by funding type (grant – for projects, technical assistance, etc. -, guarantee, concessional loan – characteristics of



	loans), Clear terms and conditions on the concessional loans provided by the International Partners Group (IPG) should also be discussed and specified to ensure compliance with the Law on State Budget and the Law on Public Debt Management, no diversion from Overseas Development Agencies (ODA), and more attractiveness than the capital markets. The JETP-RMP should be as specific as possible regarding the actual projects to be funded, and identify gaps where further project proposals need to be harnessed.
Coordination with relevant stakeholders	To include the relevant government institutions Ministry of Planning and Industry, Ministry of Finance, ministries in charge of priority sectors, provinces, the public and private domestic financial sector, and the international partners (IPG, GFANZ, etc.). Especially regarding the grant components, communities who will be affected by the transition need to be heard. Inclusive engagement is an important strategy to ensure a just transition.

### b) Next steps

The following is an outline of a sequence of steps for the development of the financing aspect of the JETP RMP:

1. Conducting studies on overview of international and domestic public climate finance, international and domestic carbon market, and capital market in Viet Nam, roles of different stakeholders, and drivers of investment flows.
2. Conducting studies on the financing needs for Viet Nam to achieve a just energy transition and proposed financing principles and prioritisation criteria and identification of priority sectors, differentiated by the type of financing.
3. Conducting studies to develop a JETP investment portfolio and investment needs in each priority sector;
4. Organising stakeholder consultation workshops to build consensus on JETP financing;
5. Mapping various funders in the ecosystem to establish who can fund what;
6. Designing investment instruments that can unlock financing at scale;
7. Developing monitoring, reporting, and evaluation frameworks, as well as risk management frameworks for JETP.

The non-exhaustive list of in-depth studies is proposed below that will be conducted in the period from now until the approval of JETP RMP and during the implementation of JETP RMP.

**Table 8: Suggestive list for in-depth studies**

Subject	Timeline	Stakeholders
Overview of international and domestic public climate financing landscape in Viet Nam	Sep 2023	MOF, MPI, MOIT, MONRE

Subject	Timeline	Stakeholders
Overview of the international and domestic carbon market to facilitate the green transition in Viet Nam and other countries	Sep 2023	MOF, MPI, MOIT, MONRE
Overview of the capital market in Viet Nam, roles of different stakeholders, drivers of investment flows	Sep 2023	MOF, MPI, MOIT, MONRE
Development of a private sector finance matrix, including revenues from Article 6 and the voluntary carbon market and defining the role of the government and the private sector in Vietnam in the financing framework for JETP	Nov 2023	MOF, MPI, MOIT, MONRE, private investors
Assessment of financing needs for Viet Nam to achieve just energy transition and proposed financing principles and prioritisation criteria and identification of priority sectors, differentiated by the type of financing	Nov 2023	MOIT, MONRE, MOF, MPI, MOLISA, MOET
Development of a JETP investment portfolio and investment needs in each priority sector	June 2024	MOIT, MONRE, MOF, MPI, MOLISA, MOET
Analysis of the challenges and opportunities for technological innovation and private investment, especially that mobilised through international carbon markets.	June 2024	MONRE, MOIT, private investors
Assessment of the potential impacts of the transformational process on the socio, economic development of Vietnam and identification of the affected, vulnerable and low-income groups;	Nov 2024	MOLISA, social-societies, affected groups
Identify the financial mechanisms to support the affected, vulnerable and low-income groups;	Nov 2024	MOF, MOLISA, MOIT, social-societies, affected groups
Develop risk management mechanisms.	Nov 2024	MOIT, MONRE, MOF, MPI, MOLISA, MOET

\* Notes:

MOET: Ministry of Education and Training;

MOF: Ministry of Finance;

MOIT: Ministry of Industry and Trade;

MOLISA: Ministry of Labour, War Invalids and Social Affairs;

MONRE: Ministry of Natural Resources and Environment;

MPI: Ministry of Planning and Investment;

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