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INDUSTRIAL DEVELOPMENT ORGANIZATION



Ministry of Planning and
Investment of Vietnam

HANDBOOK ON HOW TO ACCESS GREEN FINANCING IN VIET NAM



INCLUSIVE AND SUSTAINABLE INDUSTRIAL DEVELOPMENT

ACKNOWLEDGEMENTS

This handbook was prepared to introduce the funds in Viet Nam that provide access to green investments in the country. This work was done in the framework of the project “*Implementation of eco-industrial park initiative for sustainable industrial zones in Vietnam*” managed by the Ministry of Planning and Investment (MPI) and the United Nations Industrial Development Organization (UNIDO). The project is supported by the Global Environment Fund (GEF) and the Swiss Government. The project aims to transform industrial parks (IP) into eco-industrial parks, including the IPs of Khanh Phu Industrial Park (Ninh Binh), Hoa Khanh Industrial Park (Da Nang) and Tra Noc Industrial Park 1 & 2 (Can Tho).

The handbook begins by introducing the financial funds that invest in technological innovation to save energy and reduce companies’ ecological footprint. It also provides basic instructions on the conditions, purpose, benefits and access procedure of each fund.

The handbook was prepared by Tran Huong Giang (Sen26 Trading Consultant Company limited), Nguyễn Đình Chúc (VASS), Trần Minh (VASS), Nguyễn Thị Thục (VASS) and Alessandro Flammini (UNIDO Headquarters), with the support of many organizations and individuals. The report benefited from excellent editing by Genevieve Joy. The authors are grateful to the International Financial Company (IFC), Vietnam Development Bank (VDB) and the Vietnam Environment Protection Fund (VEPF) for their contribution to the development of this handbook. Sincere thanks also go to Tran Thanh Phuong and Nguyen Tram Anh (UNIDO Vietnam), Jerome Stucki (UNIDO Headquarters), Nguyen Thuy Ha, Nguyen Ngoc Khanh (VDB), Vu Tuong Anh (IFC), Tran Thanh Nam and Pham Tuan Anh (VEPF), Nguyen Chau Hoa (WB) and Nguyen Thi Thu Ha (HD Bank) for their help in the finalization of the handbook.

For more information on UNIDO’s work on eco-industrial parks, please contact EIP@unido.org.



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State Secretariat for Economic Affairs SECO



ACRONYMS AND ABBREVIATIONS

BAT/BEP	Best available technologies/best environmental practices
EECP	Energy Efficiency and Cleaner Production Fund
EIP	Eco-industrial park
GHG	Greenhouse gas
GGSF	Green Growth Support Fund
MPI	Ministry of Planning and Investment
IE	Industrial enterprises
IFC	International Finance Corporation
IP	Industrial park
PFI	Participating financial institutions (PFIs)
POP	Persistent organic pollutants
RECP	resource- efficient cleaner production
SECO	Swiss State Secretariat for Economic Affairs
SME	Small and medium enterprise
SW	Solid waste
UNIDO	United Nations Industrial Development Organization
VASS	Vietnamese Academy of Social Sciences
VDB	Vietnam Development Bank
VEPF	Vietnam Environmental Protection Fund
VEEIE	Vietnam Energy Efficiency for Industrial Enterprises Project

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INTRODUCTION

Vietnam has attained remarkable economic achievements after nearly 30 years of innovation and opening policies. These achievements are greatly attributed to the nationwide establishment and development of economic and industrial zones, which were designed to create a favourable environment for manufacturers and entrepreneurs, both domestic and international. However, it is urgent that environmental issues and environmental management are addressed within the context of industry. Faced with these challenges, the Ministry of Planning and Investment (MPI) and the United Nations Industrial Development Organization (UNIDO) have joined forces in the project “Implementation of ecological industrial parks initiative for sustainable industrial zones in Vietnam”, aimed at fostering the development of eco-industrial parks to reduce and eliminate GHG emissions, water consumption, water pollution, persistent organic pollutants (POPs) and other toxic chemicals and to pilot initiatives on clean and low-carbon technologies to be rolled out in all sectors.

With a view to helping businesses overcome financial barriers in investment to apply clean and low carbon technologies, UNIDO and MPI partnered with the International Financial Company (IFC), Vietnam Development Bank (VDB), Vietnam Environment Protection Fund (VEPF), Vietnam Energy Efficiency for Industrial Enterprises project of World Bank (VEEIE), and HDBank in order to introduce available financial mechanisms to support investments in green technology, facilitating easy access to capital sources, investment support, direct assistance and preferential loans.

Enterprises in eco-industrial parks (EIPs) are expected to be equipped with information about available green financial funds. In addition, as part of UNIDO’s support, companies will also be provided with information about the available preferential loans and support for accessing these funds.

The handbook is structured into 3 main parts:

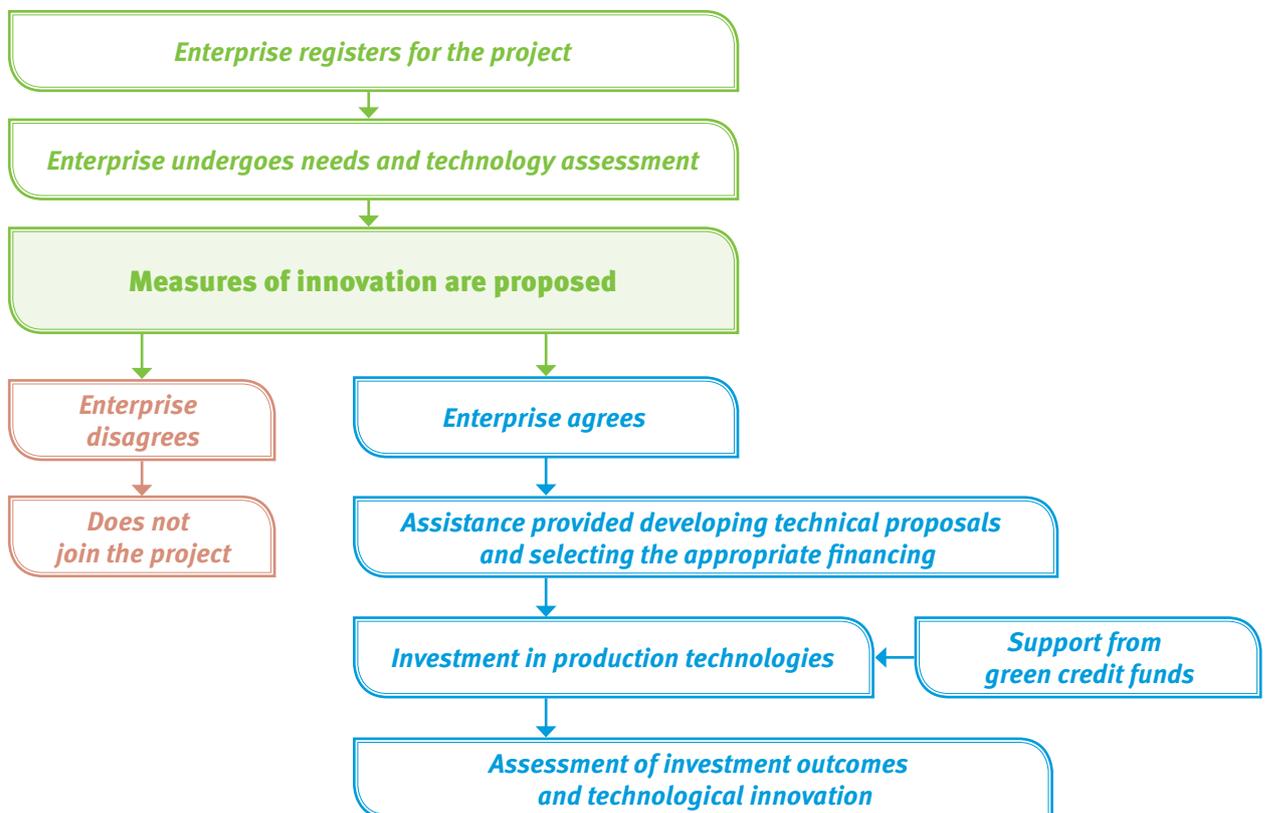
1. introduction of the benefits and advantages for SMEs wanting to access green financial mechanisms;
2. introduction of green financial mechanisms provided by project partner institutions;
3. introduction of green financial mechanisms provided by other financing institutions.



PART 1. BENEFITS FOR SMEs

Supporting small and medium enterprises (SMEs) to improve their environmental footprint can promote the transfer, application and diffusion of cleaner production technology and methods to reduce hazardous waste, greenhouse gas (GHG) emissions, water pollutants, and better manage chemicals in industrial parks in Vietnam, while also helping them become more competitive.

Figure 1. Process to be followed by SMEs supported by the UNIDO project



Enterprises seeking financial support are assessed against their processes and technologies and are assisted in seeking financial solutions by connecting them with preferential financial sources of investment in resource-efficient cleaner production (RECP) technologies suitable for industrial parks.

Enterprises can benefit from their involvement both directly and indirectly.

1.1. Direct benefits

One direct benefit for enterprises is that they are assisted in the process of identifying new and appropriate technologies, proposing measures of technological innovation, and drafting financing applications in accordance with credit institutions' regulations (including loans with preferential interest rates, bank guarantee and post-investment rewards). Specifically, enterprises can:

- Be assessed by experts in terms of energy efficiency, cleaner production and chemical management, and receive recommendations in terms of possible RECP solutions.
 - At least 56 companies in the industrial parks Khanh Phu, Hoa Khanh and Tra Noc 1 and Tra Noc 2 have been assessed so far in terms of applicability of RECP technology options.
- Be supported by the experts on drafting financing applications for technological innovation in accordance with credit institutions' regulations.
- Access preferential loans or grants supported according to the regulations of credit institutions, including the International Financial Corporation (IFC), Vietnam Development Bank (VDB), Vietnam Environmental Protection Fund (VEPF) and other relevant financial mechanism like Vietnam Energy Efficiency for Industrial Enterprises of World Bank (VEEIE) and Solar Power of HDBank (HDBank).

Another direct benefit for enterprises is the opportunity to participate in training and capacity building activities within the framework of the project. Enterprise technicians have the opportunity to attend training courses in RECP to later provide training to other staff. At least 220 technicians in 3 industrial parks in Ninh Binh, Da Nang and Can Tho have been trained on characteristics and environmental aspects of technologies and production methods, as well as on assessment and implementation of RECP solutions.

1.2. Indirect benefits

Apart from the direct benefits, enterprises participating in the project can also gain indirect benefits from:

- long-term support from UNIDO regarding all technical, financial, social and environmental aspects of eco-industrial parks in planning and management;
- long-term support for training from local consultancy and service provider firms who have been trained to be RECP trainers or advisors.

The templates to apply for green financing are available on the website of project “Implementation of eco-industrial park initiative for sustainable industrial zones in Vietnam” at <http://eipvn.org/>

PART 2. GREEN FINANCIAL MECHANISMS OF THE PROJECT PARTNERS

As introduced above, one of the activities of the project is seeking and connecting enterprises participating in the project with appropriate financial sources in order to help them access finance.

To date in November 2018, there are two active financial institutions available to finance these enterprises: the VDB and VEPF. Objectives, criteria and procedures for accessing financing from these financial institutions are presented below. .

2.1. Vietnam Environmental Protection Fund

The VEPF is a state-owned financial organization established by the government. The VEPF holds total chartered capital of VND 1 trillion, including VND 727 billion allocated by the state budget.

One of the main activities of the VEPF is to provide financial support for environmental protection, biodiversity, projects and activities at national, inter-sectoral and inter-regional levels on environmental pollution prevention and recovery or severe local environmental issues.

Activities of financial support provided to businesses involved in the project include:

- preferential loans
- preferential interest rates
- grants

Section 2.1.1 will present details of eligible clients, conditions and procedures for each support mechanism.

2.1.1. Fund clients

The target clients to be provided with VEPF financial support are those whose basic operations are in the following areas:

- cluster industrial wastewater treatment, or concentrated wastewater with a designed capacity of at least 2 500 m³ of wastewater per day applied to urban areas type IV or higher (according to the Ministry of Construction);
- treatment of toxic waste and concentrated industrial waste;
- treatment of waste discharged from hospitals, factories and craft villages (e.g. wastewater, exhaust gas, smoke, etc.);
- domestic waste handling;
- producing environment-friendly products or products from waste treatment and recycling activities;

- deploying clean environment-friendly technology, energy saving, producing renewable energy;
- buying specialized equipment and means directly used in waste collection, transport and treatment, environment observance and analysis;
- Other areas stipulated in Decree No. 19/2015/ND-CP dated 14/02/2015¹.

In addition to the general conditions, more details on specific customers for (i) loans at preferential interest rates, (ii) subsidized interest rate/loan guarantees and (iii) project grants are described below.

i. Eligible client for preferential loans

Clients eligible for preferential loans have environmental protection programs, projects, activities and tasks at national, inter-sectoral and inter-regional level; or address severe local environmental problems in priority areas meeting the selection criteria. The list of priority areas and criteria are changed annually by the Fund's Management Board.

ii. Client for preferential interest rate/ loan guarantee

Clients subject to preferential interest rate/loan guarantees are organizations and individuals borrowing from other credit organizations that have environmental protection investment projects in priority areas, satisfying selection criteria and fulfilling payback obligations for environmental protection investment loans.

ii. Client for project grant and co-financing

The mechanism for project grants is used for (i) the development and implementation of a project that mobilizes funding resources in order to perform tasks and activities related to environmental pollution, environmental disaster response and remediation; (ii) programs, plans and projects as decided by the Prime Minister; (iii) the administration of environmental awards and other commendations to honour organizations and individuals acting as role models of environmental protection in accordance with the decision of the Minister of Natural Resources and Environment; and (iv) environmental protection projects as specified in VEPF's organization and operation charter.

Eligible applicants for project grants are organizations and individuals with projects in environmental protection. These can include environmental education; community awareness raising; environmental prizes, response and handling of pollution, accidents and disasters; core and urgent environmental protection investment projects that lack government budget; development and duplication of the community-based environmental protection models; development of programmes and projects on mobilizing funding from both domestic and overseas sources; environment-friendly technology transfer and cleaner production; and measures to prevent, limit and remediate environmental incidents.

¹ According to Appendix III – List of environmental protection activities eligible for preferential support.



2.1.2. Selection criteria

General selection conditions/criteria for financial support are based on:

- environmental protection effectiveness and urgency
- size and characteristics
- economy and ability to repay
- sustainability and replicability
- applicability of suitable advanced technology, especially domestic manufacturing
- direct contribution to government environmental policies

Besides the general conditions, each form of support requires further specific conditions including scale, duration, preferential interest rates, guarantees/grants, as follows.

i. Requirements for preferential loans

The decision to provide investors with preferential loans is based on the following conditions:

- eligible client for preferential loans as stipulated above;
- capacity for civil legal and civil acts, taking civil responsibilities in accordance with legal regulations;
- completion of investment procedures in accordance with legal regulations;
- existing evaluation and approval of Loan Application Document by the Fund;
- sufficient financial and repayment ability in the period specified in the Loan Application Documents while ensuring the committed counterpart capital;
- loan collateral such as the property assets, assets from loans or guarantees by a third party. In special cases, the unsecured lending is to be decided by the fund management board. In the payoff period, the investor or the guarantor is not allowed to transfer, trade or collateralize assets which are hypothecated or bailed to borrow elsewhere.

Loan amount: The maximum should not exceed 70 percent of the total investment. The fund management board has the right to decide the loan amount for each target group while the director authorizes the lending decisions in each period.

Authority for loan approval: The fund director, with under 3 percent of actual chartered capital (at present equivalent to about VND 22 billion), the chairman of the fund management board with 3 to 5 percent of actual chartered capital (at present equivalent to VND 22 to 36 billion).

Loan term: Defined based on the ability to recover capital, the production and business characteristics and ability to repay the borrowers over a period of no more than 7 years.

Interest rate: The maximum should not be over 50 percent of the commercial interest rate. This interest rate is determined by the Fund Management Board based on the ceiling interest rate approved by the Ministry of Finance. From January 2018 to present, the annual interest rate is 2.6 percent.

ii. Requirements for subsidized interest rates or loan guarantees

To earn a subsidized interest rate, beside the general conditions, the project owner must ensure the following:

- the project is confirmed by competent authorities as effective in environmental protection or addressing environmental problems;
- the project is completed and put into operation with the loans already repaid;
- the project is confirmed as already having a subsidized interest rate or grant aid by the Fund's operating capital.

Support scope: The project owner only receives one-time support of a subsidized interest rate for a given investment loan (excluding overdue debts) within the total investment of the project approved by the competent authorities.

Interest rate: Determined by the Fund Management Board. The determination of the subsidized interest rate is based on the total loan of the project owner from credit institutions to invest and the interest rate at the time of borrowing but should not be over 50 percent of the ceiling interest rate set by the Ministry of Finance at the time of signing the contract. The subsidized interest rate is the original debt at a subsidized interest rate \times approved interest rate \times loan term (in years) of the original debt at the subsidized interest rate. From January 2018 to present, the approved subsidized interest rate is 2.6 percent per year. The time of funding is once per year at the end of the year after the project owner has already repaid the credit institution.

iii. Requirements for project grants

To be granted, the project must be approved by competent authorities as eligible for the grant aid while the project owner should secure a counterpart capital of at least 50 percent of the total investment. The maximum grant amount will cover at most 50 percent of expenses.

2.1.3. Loans procedure

The procedure of preferential lending is defined in Decision No. 65/QĐ – QĐVT dated 21/05/2010 while that of preferential interest rate and project grant is stipulated in Decision No 07/QĐ – QĐVT dated 07/01/2013. Essentially, the steps in these procedures are similar with four basic steps as shown in Figures 2.1 and 2.2. The specific contents of each step are described in Appendix 1 of this handbook.

Figure 2.1: VEPF procedure of completing, evaluating and approving financial support

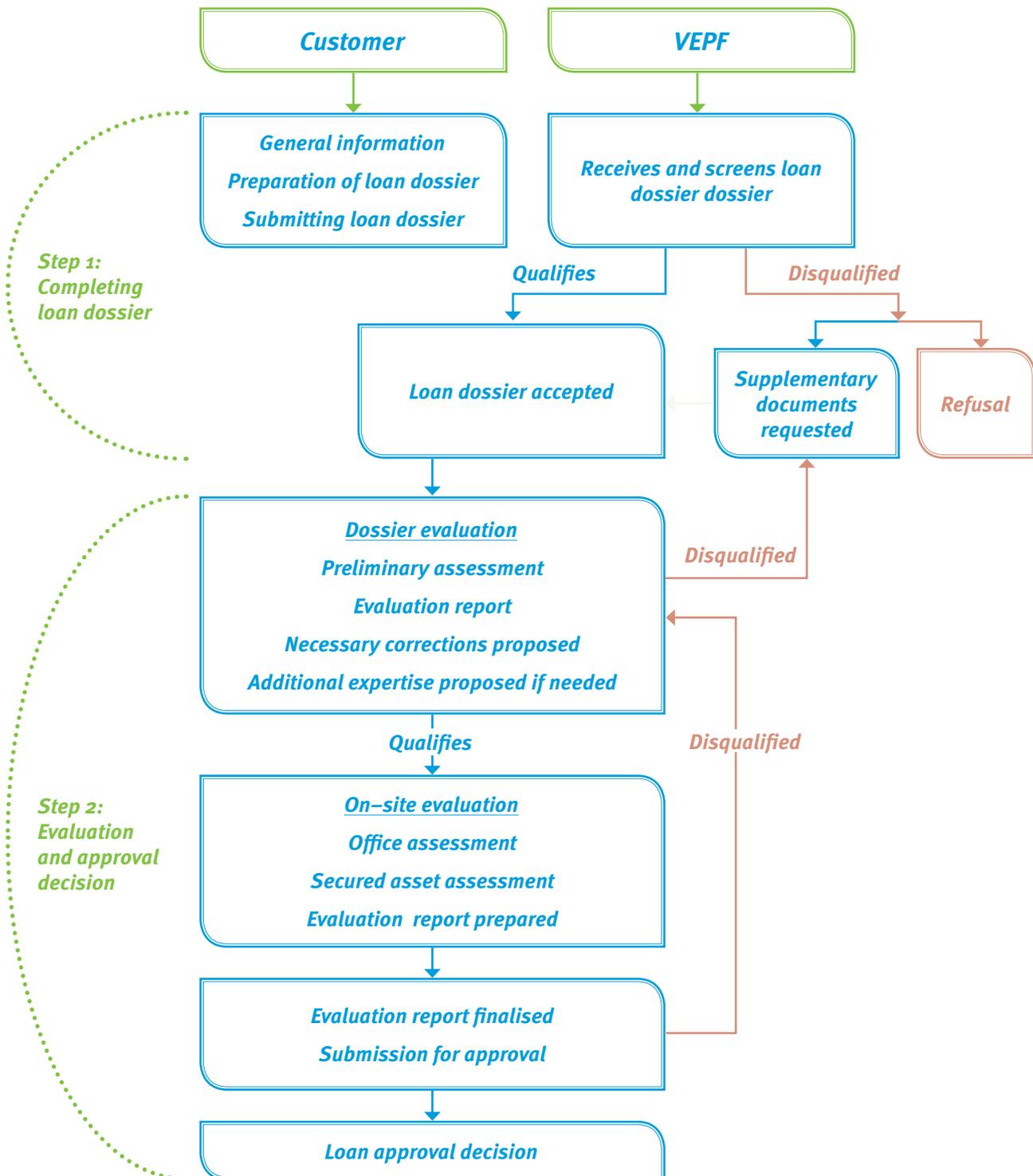
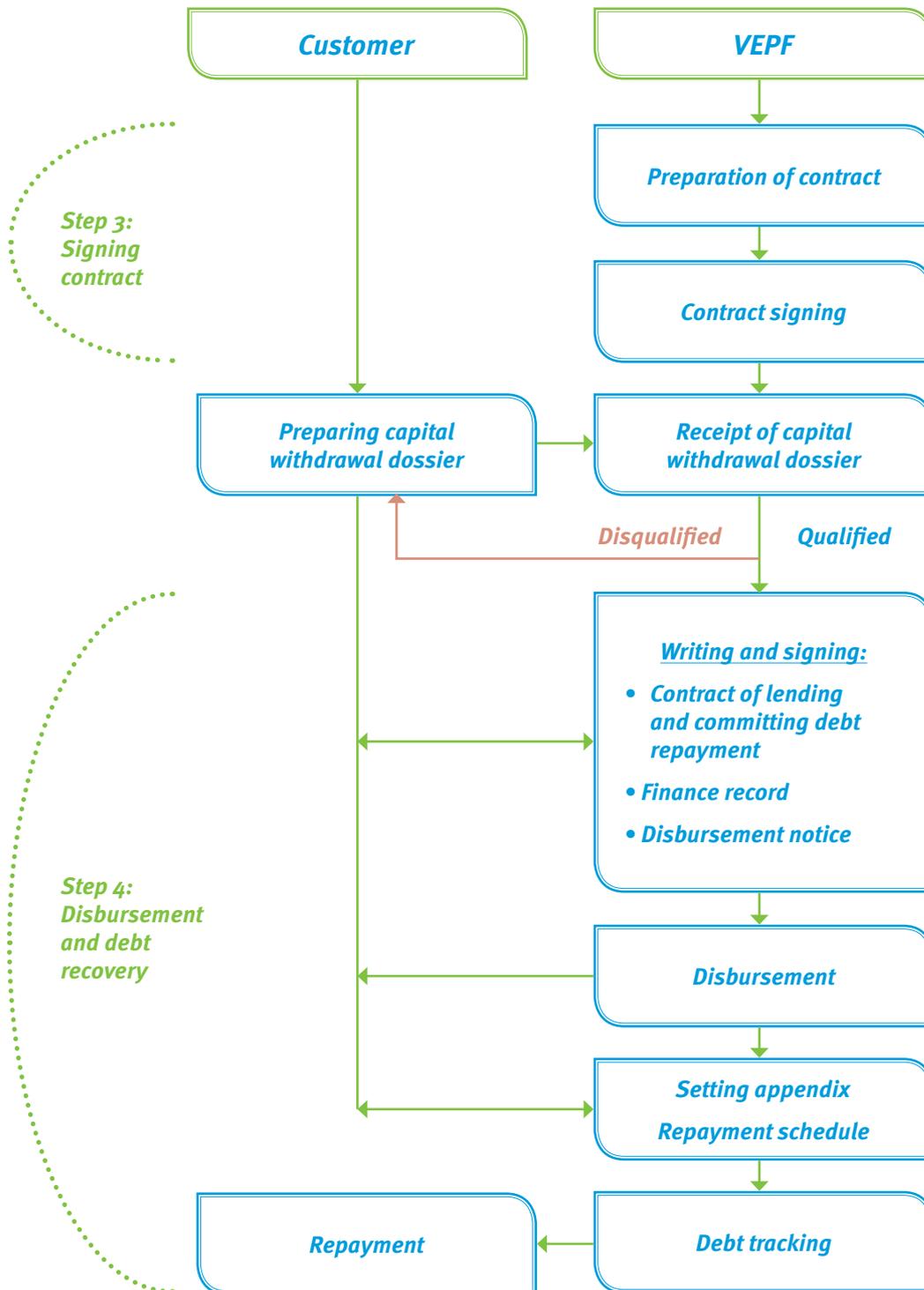


Figure 2.2: The procedure to access financing support from VEPF



2.2. Vietnam Development Bank

The Vietnam Development Bank (VDB) provides financial support to projects with a committed capital of USD 1.77 million in preferential credit under a re-lending programme of the European Investment Bank (EIB) for climate change mitigation in Vietnam. At present, the VDB only provides loans for state investment credits and re-loan foreign investment (authorized by the Ministry of Finance for subprime loans with risks) pursuant to Decree 32/2017 on investment credit and Decree 97/2018 on on-lending of official development assistance (ODA) loans. This handbook focuses on the procedures to access the committed USD 1.77 million.

The specific conditions to be considered for a loan to support EIPs are outlined below.

2.2.1. Fund clients

VDB clients are projects that have been invested and implemented in Vietnam to mitigate climate change impacts, with a demonstrated ability to repay the loan. These include:

- projects invested in producing renewable energy, hydropower, wind power, solar power, geothermal, biomass energy;
- projects in industry:
 - exploitation and use of methane in coal mining;
 - exploitation and use of methane in oil extraction;
 - renovation;
 - investments to reduce gas losses;
 - use of alternative raw materials, increasing the use of additives, and recycled waste heat recovery in cement production;
 - Efficient use of energy in renovated projects, especially those in food, glass, steel and iron industries;
 - projects that use energy converted from coal to gas;
- agricultural projects:
 - exploitation and use of biogas;
 - collection of residential and commercial wastewater from landfills and agricultural product processing establishments;
 - exploitation and use of methane obtained from wastewater treatment or use in energy production;
- other projects:
 - investment in other forms of energy distribution that are more effective;
 - investment in energy-saving technologies used in residential areas or for commercial purposes (solar water heater, high voltage AC, lighting, etc.);
 - effective conversion of transportation types or upgrading of transport management;
 - investment in afforestation and reforestation.

Beneficial EU-funded investment projects in energy, transport, industry, related services (including industry and agriculture), infrastructure (including public-private partnerships), tourism, communications, public utilities with technology transfer of European know-how (imported from EU

countries and must be worth at 50 percent of the project's total investment) and/or implemented by European companies or in joint venture with Vietnamese companies.

2.2.2. *Loan conditions*

Clients must build an investment project to meet requirements such as construction permits, environmental protection certificates, use of water, electricity generation (for power development investment project), etc. The conditions of investment projects and investors are as follows:

i) Investment projects:

- eligible for capital borrowing as prescribed in section 3.2.1;
- total investment capital of not less than EUR 25 million;
- financial plan and loan repayment plan accessed and approved by VDB;
- full implementation of investment procedures following sponsor's regulations and the state's current regulations on investment and construction management and open bidding.

ii) Investors:

- if enterprises, must be:
 - Vietnamese enterprises set up in accordance with the Law on Enterprises from all economic sectors;
 - branches of EU countries' companies;
 - joint ventures between Vietnamese and EU enterprises;
- if investors, must be investors of projects as illustrated in 3.2.1;
- able to arrange the counterpart capital of at least 50 percent of the project's total capital, in which the owner's equity accounts for at least 15 percent of the project's total investment.

2.2.3. *Lending mechanism*

- Currency for lending is in Vietnamese dong (VND).
- Loan amount: Maximum 50 percent of the investment capital of the project, but not more than EUR 1.77 million from the EIB fund. The loan may be considered in combination with investment capital sources and other suitable loan extended programs, ensuring that the total loan from VDB's capital sources shall not exceed 85 percent of the project's total capital investment.
- Loan term: Suitable for production and business characteristics, ensuring that each project can repay the loan in the term and not exceeding 13 years, within which the grace period shall not exceed 3 years from the signing date of the credit contract.
- Loan interest rate: At present, it is 11 percent per year for VND. This interest rate will be adjusted by VDB in case the market interest rates change.
- Overdue interest rate: 150 percent of the lending interest rate
- Loan security assets: Investors may use loan originated assets and other legal assets to secure loans.

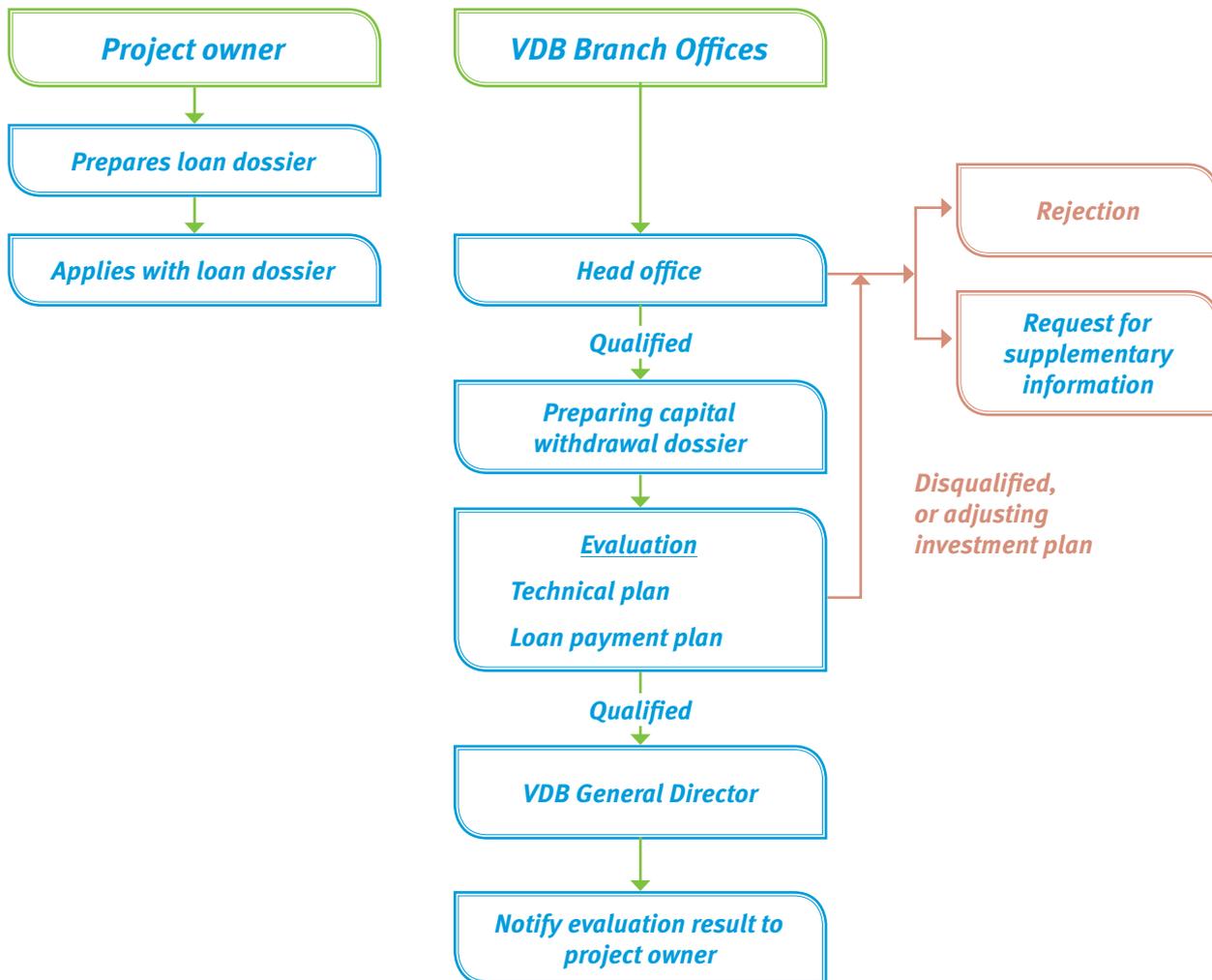
2.2.4. Bidding regulations for enterprises borrowing capital

- For state-owned enterprises: International bidding to be implemented according to open and restricted tendering procedures published on the Official Gazette of the European Union (OJEU);
- For private enterprises: There is no formal procedure, but they need to implement a commercial practice based on the implementation of transparent and fair procedures.

2.2.5. Sponsorship/support process

Although in this project the subprime loan is from the EIB, a loan-for-investment procedure is applied regardless of the source of funds. This process is modeled as shown in Figure 2.3.

Figure 2.3: VDB process for lending



In cases where enterprises borrow capital and investment projects satisfy the conditions specified in points 3.3.1, 3.3.2 and 3.3.3, the transaction bureaus and VDB branches shall:

- Guide enterprises to compile project dossiers in accordance with current regulations on investment and construction management; management and use of foreign loans and documents related to the investment in the projects; the socio-economic development plan in the locality; documents to grant or lease land; and opinions of relevant agencies.
- Receive project dossiers, urgently organizing the evaluation of financial plans and loan repayment plans according to current regulations.
- If projects have been appraised as eligible for loans, the VDB transaction offices or branches send the appraisal report together with the project file and information sheet on the project as required by the EIB for them to consider and decide. If needed, the VDB may consider providing loans for eligible loan applications in advance.

2.3. IFC's Energy Efficiency and Cleaner Production Financing Program

The funding programme for the project of Vietnam Energy Efficiency and Cleaner Production (EECP) runs within the framework of IFC's global Sustainable Energy Finance (SEF) Program. The programme cooperates with some commercial banks, assisting them in developing market strategies and financial products related to sustainable energy for enterprises that wish to upgrade their production line and technology to achieve higher energy efficiency, save production costs, improve productivity and product quality and reduce environmental impacts. To date in November 2018, IFC disbursed the committed loan (USD 63 million). IFC does not work directly with enterprises but through commercial banks such as Viettinbank and VP Bank, building capacity of those banks in appraisal and management of loans for enterprises. The loan procedures adhere to their prevailing regulations.

2.4. National Technology Innovation Fund

National Technology Innovation Fund (NATIF) is a state financial, non-profit institution that provides grants, preferential loans, subsidized loan interest rates and loan guarantees, and financial support to organizations, individuals and businesses who carry out research, technology transfer and innovation.

The total charter capital is VND 1 billion from the state budget for science and technology activities and is replenished each year to reach fund's total charter capital. One-half of this state grant can be used for preferential loans, subsidized interest rates and the provision of loan guarantees. However, at the moment, the primary financial product of this fund is grants; therefore this Handbook mentions only grant aid.

By November 2018, NATIF stopped receiving new grant applications while it waited for the approved new Charter, which adheres to the Law of Technology Transfer and Law of State budgets. It is expected that the new Charter will be finalized by mid-2019.

PART 3. GREEN FINANCIAL MECHANISMS OF NON-PARTNERS

3.1. Vietnam Energy Efficiency for Industrial Enterprises programme of the World Bank

The Vietnam Energy Efficiency for Industrial Enterprises (VEEIE) programme funded by the World Bank extends loans to industrial enterprises (IEs) for energy efficiency (EE) investments.

The programme provides loans or tranches of loans through participating financial institutions (PFIs) so that IEs can implement their EE projects. The programme also provides technical assistance for PFIs during the investment period. It will support around 60 eligible EE projects by July 2022.

Total investment: USD 158 million consists of 2 components:

Component 1: Loans for EE investment projects at USD 156.3 million (of which USD 100 million is from the WB, USD 25 million from PFIs and USD 31.3 million from IEs;

Component 2: USD 1.7 million as a grant from the World Bank's International Development Association (IDA) for Technical Assistance.

Implementing time: July 2017 to July 2022.

3.1.1. *The programme's beneficiaries*

Eligible IEs:

- IEs registered and operated according to the prevailing laws of Vietnam; and
- IEs that do not have cross ownership with PFIs with which they register for loans; and that meet PFI requirements on normal trade rules for similar loans.

Eligible EE sub-projects:

- (i) replace ineffective equipment and techniques by energy efficient and more effective equipment and techniques;
- (ii) withdraw and make use of emissions, by-products, pressure;
- (iii) install high--efficient electric and mechanical equipment including engines, lights, pumpers, waste heat recovery systems and ventilators, etc.;
- (iv) optimize industrial systems to minimize energy utilization;
- (v) improve energy efficiency in industrial buildings; and
- (vi) utilize industrial renewable energy and other projects accepted by the World Bank.

Sub-projects are limited to renovating and restoring the existing components and systems and the requirement for energy savings rate is at least 20 percent. A lower energy saving rate can be accepted with specific fields with modern energy technology.

The maximum payback period is 10 years. The internal rate of return must be at least 10 percent.

3.1.2. Requirements for participating projects

- IEs must be eligible;
- Energy efficiency sub-projects must be eligible;
- Expenditure must occur after 15 July 2016;
- Lending articles to IEs must adhere to VEEIE requirements;
- Sub-projects must meet technical requirements;
- Sub-projects must meet the environmental and social policies of the World Bank and national regulations;
- Project procurement procedures must be adhered to and most projects implemented under common trade practices;
- Sub-projects must meet the economic ratio under VEEIE regulations.

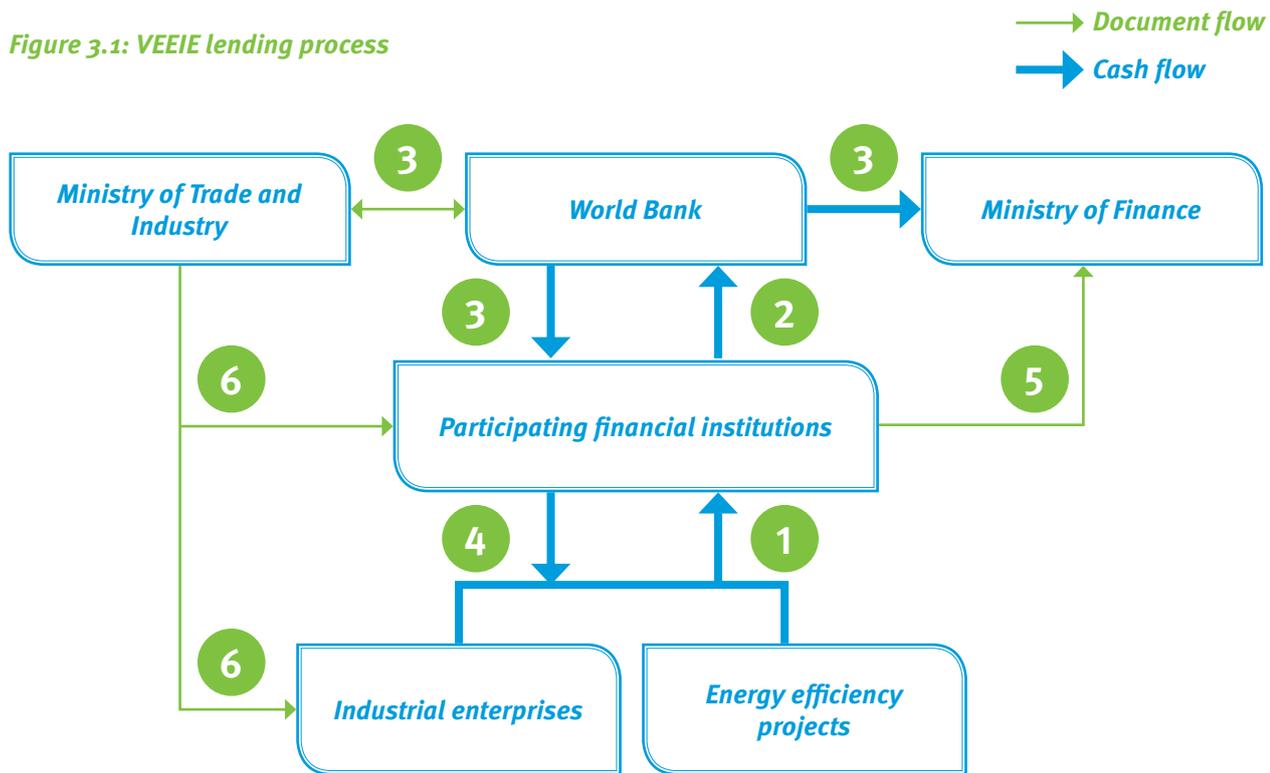
3.1.3. Requirements on lending articles between PFIs and IEs

- Interest rate extended for IEs will be agreed by both PFIs and IEs
- Maturity date: Maximum 10 years. Grace period: Equal to the construction and installation time.
- Lending currency: VND or USD, following the State Bank's foreign exchange management policies.
- PFIs can provide loans for energy efficiency sub-projects at a maximum rate of 80 percent of the total investment of the project.

3.1.4. Lending process

- Step 1: IE sets up and submits a loan application to one of the two PFIs. Apart from common requirements according to trade practices, the loan application consists of the following documentation: feasibility study, technical design, energy savings calculation (including an energy audit if needed), procurement plan, economic and financial analysis, social and environmental documentation (if required).
- Step 2: If the loan application meets all lending requirements, the PFI will submit the completed application to the World Bank to obtain a no-objection letter (NOL). A completed application includes: (i) no-objection request from PFI to the World Bank; (ii) loan application; and (iii) checklist on PFI's lending requirements.

Figure 3.1: VEEIE lending process

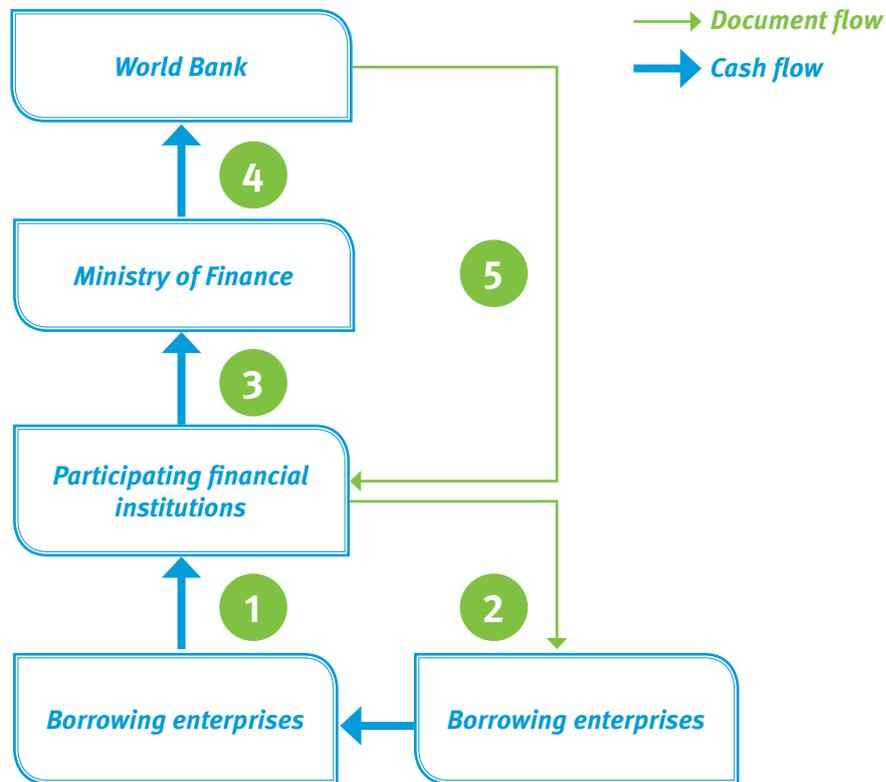


- Step 3: The World Bank will thoroughly scrutinize the submitted loan applications to issue an NOL.
- Step 4: Once the NOL is received from the World Bank, the PFI will inform the IE that the energy efficiency sub-project has received approval for loans from the VEEIE, and it will implement the under the agreement and requirements from the VEEIE. If the PFI receives an NOL with conditions, it is responsible for ensuring that the IE will meet all the conditions before the approval of the loan application.
- Step 5: If the loan application is approved and receives an NOL from the WB, the PFI can disburse the loan from its advance account.
- Step 6: During the project implementation period, the Ministry of Industry and Trade will monitor the implementation of all approved sub-projects and ensure that IEs and PFIs implement energy efficiency projects under VEEIE requirements.

The sub-project will be screened and appraised by the PFIs and will not need an NOL from the World Bank. If the sub-project meets all the requirements, the PFI can disburse the loan for a sub-project and monitor its implementation. The Ministry of Industry and Trade and the World Bank can have post test procedures with 20 percent of sub-projects with the total investment equal to or less than USD 500 000.

3.1.5. Loan payment request procedure

Figure 3.2: Disbursement procedure for VEEIE projects



- Step 1: IE requests PFI to withdraw capital from the energy efficiency loan for payment of sub-project expenses.
- Step 2: PFI approves the capital withdrawal and process the capital payment to IE or to contractors providing goods and services.
- Step 3: PFI prepares capital withdrawal application and other documents to be reimbursed and sent to the Ministry of Finance (MOF) for approval/control and signature.
- Step 4: MOF checks the request and documentation, approves capital withdrawal application, signs the application and sends it to the World Bank for reimbursement. The Bank will handle within 5 working days from the receiving day.

The deadline for the disbursement is 4 months after the closure of the VEEIE.

3.1.6. Benefits to the project participants

- Long-term and preferential capital from the World Bank to Vietnam;
- Opportunity to participate in Carbon Finance Program in which gas emission reductions from energy saving investment will be reimbursed by the World Bank. The total fund for the first period of the programme is estimated to be USD 10 million.
- Can participate in training and capacity building activities on technical project evaluation (e.g. verification of energy savings solutions), finance and project management.
- Support on technical areas, technology consultation and investment project preparation.
- Access to Risk Sharing Facility, which costs USD 75 million, and provision of guarantee on energy saving projects.
- Ability to participate in experience-sharing programme on energy conservation, energy efficiency and conservation technology, both in-country and abroad.

3.2. HDBank solar power programme

3.2.1. Eligible clients

Eligible clients for solar power loans must:

- Be investors of on-grid solar power projects that are listed in the master plan (solar power development master plans at provincial and national scales; approved solar power development master plans at provincial and national scales).
- Be granted permits to operate in the power sector, abiding by the regulations of Circular No. 12/2017/TT-BCT dated 31/07/2017 by the Ministry of Industry and Trade.
- Have surface area suitable for the installation of solar power (under Circular 16/2017/TT- BCT dated 12/09/2017), stating that long-term use land area should not be more than 1.2 ha per MWp).
- Make deposits to ensure the implementation of the project for the locality following Decree No. 118/2015/ND-CP dated 12/11/2015. The amount of the deposits shall be calculated as a percentage of the investment capital of the project stated in the decision on the investment policy or in the investment registration certificate on the principle of partial progression as follows:
 - for capital amounts of up to VND 300 billion, the escrow amount shall be 3 percent;
 - for capital amounts of VND 300 billion to VND 1 trillion, the escrow amount shall be 2 percent;
 - for a capital amount of over VN 1 trillion, the escrow amount shall be 1 percent.
- Owner's equity capital must be at least VND 150 billion.
- Owner's equity ratio must be at least 30 percent of the total investment.

3.2.2. Lending mechanism

- Loan objectives: Adding investment capital for the construction of solar power plants or offsetting the investment capital previously used for construction of solar power plants in accordance with legal regulations;
- Loan amount: Up to 70 percent of the project's total investment capital;
- Loan term: Suitable for demand and plan of depreciation and repayment of the clients but not more than 12 years;
- Loan interest rate:
 - First 6 months: 10 percent per year
 - After 6 months: interest rate is adjusted every 3 months = LS12 + minimum 3.5 percent (LS 12 is the common interest rate of 12-month regular saving, which is issued by HDBank at different periods).



3.2.3. Required documents

Documents submitted for HDBank should include:

Document to be submitted	At appraisal time	Before disbursement
Decisions on the approval of master plans for power development at provincial and national level	X	
Decision approving investment policy	X	
Investment license/investment certificate	X	
Pre-FS/FS/investment report if the project only needs the investment report from the consulting company	X	
Agreement on power purchase from EVN	X	
Decision on land recovery, allocation, land leasing, land leasing contract	X	
Approval 1/500	X	
Result of project design appraisal	X	
Approval of project's environmental impact assessment	X	
Agreement on power connection	X	
Agreement on line alignment	X	
Scada and relay agreements with the National Power System Regulation Centre		X
Agreement on power calculation with Power Trading Company		X
Construction license		X
Decision on land compensation, site clearance, minutes of receiving compensation, site clearance		x
Land use right certificate		X
Fire prevention plan		X
Power Purchasing Agreement (following the sample issued by the Ministry of Industry and Trade) signed between buyer and seller authorized by EVN		X
Engineering Procurement Contract or agreement on providing or installing the project's main categories officially signed		X

3.3. HDBank rooftop solar power and power payment for SMEs

3.3.1. Eligible clients

- Enterprises, foreign direct investment enterprises which are now operating in the south, southern central or central highlands (or other areas under the HDBank's regulations in each period) that wish to borrow money to build a solar rooftop project.
- Experience in production and business in the main industry: minimum 3 years
- Revenue in the latest fiscal year: \geq VND 50 billion.
- Equity capital: \geq VND 10 billion, charter capital \geq VND 3 billion.
- After-tax profit / equity in the most recent year \geq 0%
- Invoice payment for the last 3 months, the minimum invoice value is \geq 50 million VND / month
- Not operating in polluting industries

3.3.2. Lending criteria

- Solar grid system installed in the factory / warehouse owned by the Customer, or long-term rent paid once and the remaining period is over 5 years.
- The investor shall register the connection with the authorized provincial/municipal power company with the following main information: estimated capacity, technical specifications of photovoltaic panels, parameters of AC converters. To ensure the safety of the grid system, the DC converter must have anti-grid function when the power grid is out of power and meet the standards on frequency and voltage.
- The provincial/municipal power company shall coordinate with the investor in installing a two-way meter and record the electricity consumption and installation monthly.
- The Engineering Procurement Contract (EPC) or contract or agreement to supply and / or install the main items of the project signed officially
- Installation, maintenance/warranty partners must be accepted by HDBank
- Customers are required to submit one of the two following documents:
 - Temporary Memorandum of Understanding on verification of electricity meter and power delivery for solar rooftop projects between provincial and municipal power companies and customers
 - Power Purchase Agreement (following the Ministry of Industry and Trade's sample) signed between the electricity seller and buyer under EVN's authorisation

3.3.3. Lending mechanism

- Loan term and flexible to meet clients' demand, plan for depreciation and source of repayment, but not exceeding 5 years.
- Interest rates and fees: According to current regulations of HDBank in each period
- Credit line: = Capacity (kWp) * 70% cost
- Capacity (kWp) is the capacity of grid connected solar power system with a capacity of <1,000 kWp (without the need to supplement the electricity operation license)
- The cost is determined at the minimum level of the following: 1. The cost is equal to the total value of the grid-connected system shown in the quotation / VAT invoice / input contract (excluding VAT) divides the design capacity of that solar grid; 2. The cost must not exceed VND 20,000,000/kWp; 3. The cost is calculated according to market price survey.

3.4. Green Growth Support Fund

The Green Growth Support Fund (GGSF) was established under the cooperation between Vietnam and Belgium and aims to promote the implementation of the Vietnam Green Growth Strategy. The objective is achieved through encouraging green initiatives that reduce CO₂ emissions and other pollutants. The fund's total capital is EUR 5.5 million of which EUR 500 thousand is contributed by the Vietnamese Government. The fund supports green growth to increase the efficiency and effectiveness of energy use; support the transfer of clean technology, equipment and technology to manage pollution, litter and wastewater; and encourages clean solutions in urban transportation, food processing, handicraft and tourism, among others to attract investment from the private sector.

In parallel with grant provisions on green growth, the fund also supports other activities such as awareness raising, training, pilot projects and research.

APPENDIX 1. ADDITIONAL INFORMATION ON FINANCIAL MECHANISMS

Appendix 1.1. Brief on main characteristics of four active funding sources

	VDB	VEPF	VEEIE	HDBank
Scope	Nationwide	Nationwide	Nationwide	Nationwide, priorities from Central to South Viet Nam
Funding to	Projects listed in Decree no. 75/2011/ND-CP; projects that focus on saving energy and renewable energy	Enterprises, cooperatives, households with environmental protection projects	EE enterprises meet criteria of the project	Enterprises that are eligible investors of on-grid solar power projects
Sector	Equipment and technology (working capital excluded)	Pollution treatment, cleaner production technologies	Energy efficiency technology	Solar power
Financial requirements for enterprises	Max 70% of total investment	Min 30% counterpart fund	Max 80% of total investment	Max 70% of total investment
Selection criteria	<ul style="list-style-type: none"> • Medium to large-scale projects in development investment and export 	<ul style="list-style-type: none"> • Urgency and effectiveness in environmental protection • Size and characteristics • Economics and ability to repay • Replicability and sustainability • Applicable to appropriate technologies, especially domestic • Direct contribution to government policies on environmental protection 	<ul style="list-style-type: none"> • EE sub-projects that meet VEEIE requirements and technical and economic criteria • Disbursement made after 15 July 2016 • Meets the social and environmental policies of World Bank and national regulations 	<ul style="list-style-type: none"> • Enterprise is an investor of solar power projects • Connecting to grid and listed in the national/provincial solar power master plan • Granted permits to operate in power sector • Surface area suitable for the installation of solar power • Owners' equity capital at least VND 150 billion
Funding mechanism	Low interest rate loan based on the average interest rate and management expenses of VDB: 11%, fixed throughout loan duration	Low interest rate loan (2.6% from 2018) Interest rate subsidy: 2.6% per year Grant: max. 50%	Interest rate is agreed between bank and enterprise	First 6 months: 10% per year After 6 months: interest rate is adjusted every 3 months = LS12 + minimum 3.5% (LS 12 is the common interest rate of 12-month regular saving, which is issued by HDBank at different periods).
Funding period	Max. 12 years for investment credit with 3-year grace period	7 years	Max. 10 years, grace period = time for construction and installation	Not to exceed 12 years

Appendix 1.2. Description of the steps to request a loan from the VEPF

The loans/subsidy/grant procedure can be divided into four steps: (i) dossier preparation, (ii) dossier evaluation, (iii) contract signing; (iv) disbursement.

Step 1. Dossier completion and submission.

After collecting and acquiring information, the project owner will prepare a dossier applying for the loan compliant with the VEPF's requirements.

In this step, VEPF staff are supposed to provide the dossier forms and instruct the project owner to complete relevant documents. Their responsibility is to do the initial screening based on the selection criteria of the VEPF.

When the project owners apply for loans, three situations may arise:

- *Situation 1:* The project fails to meet the selection criteria. As a result, the dossier reception staff will reject the project and report to the Head of Credit.
- *Situation 2:* The project meets the selection criteria, but the dossier remains incomplete or improper. Then the project owner will be required to supplement additional documents pursuant to regulations.
- *Situation 3:* The project meets the selection criteria with complete and proper documentation for consideration. The dossier reception staff will issue a receipt of dossier with one copy being sent to the project owner.

Stage 2. Evaluation and decision making

After accepting the dossier, the staff will propose an evaluation and transfer received documents to relevant departments, i.e. the credit department and the risk management department, to ensure a smooth and prompt evaluation process. A loan teller will be assigned in charge of project evaluation, which includes:

i. Preliminary assessment

The loan teller is responsible for collecting all necessary information about the client, loan scheme and preliminary assessment of loan, preparing an evaluation report on the dossier alongside preliminary solutions. If necessary, he/she might consult with experts and negotiate with the borrower about appropriate credit conditions, supplementary documents, etc. The maximum duration of this stage is 10 days.

The purpose of collecting and analyzing the dossier and information is to evaluate current and future demands of the project's beneficiaries, the investor's demands and necessary resources to evaluate and lend/support/fund the project.

Evaluating the project's relevance

- Step 1: Evaluate the relevance of the project applying for lending/supporting/funding according to the general target as well as criterion of the Fund and the "Implementation of eco-industrial park initiative for sustainable industrial zones in Vietnam" project.



- Step 2: Identify and analyze the VEPF's capability to provide resources and budget. Based on the project's size, complexity and capital use, the VEPF will decide the limit on lending/supporting/funding for each project. However, according to the lending mechanism, the maximum loan for each project is 75 percent and maximum grant is 50 percent of total investment.
- Step 3: Output requirements/commitment of clients receiving funding:
 - the new production line, technology, equipment, system, etc. and outputs satisfying safety and environmental conditions, etc.
 - minimize input of raw materials, fuel and emissions;
 - the investor must pledge to operate in accordance with the process and standards to maximize the project's economic, social and environmental efficiency.

Technical assessment

Technical assessment requires evaluations of the following aspects:

- review and evaluation of whether the site is conveniently located, adjacent to sources of raw materials and fuel, electricity and water, and is situated in the planned area;
- review and evaluation of the appropriateness of processing technologies, equipment and machinery selection;
- management of the project, staff training and technology transfer;
- safety, sanitation and environmental requirements when implementing the project, waste management, fire control and risk management;
- feasibility of the project in terms of economy, finance, environment and society.

The investor's legal status and capacity assessment

The VEPF will assess all aspects of the investor's legal status and capacity, including the enterprise's development history, legal status, business capacity, capital, management capability, products, trading market, geographical conditions and relationships with employees. The issues that need reviewing involve evaluation of:

- the enterprise's development history via evaluating changes in capital, management, technologies, products and services;
- legal status and capacity of the enterprise leadership;
- the board *vis-à-vis* the following aspects: operational ability, ability to capture the market and products, relationships with employees, financial management capability, legal status and capacity;
- competitiveness and ability to increase the production scale;
- list of loan dossiers - checking the appropriateness of the sector written in the application form to the enterprise's current business sector and investment plan, licensed business sector and anticipated development trend in the future.

The investor's financial situation assessment

- Analyze the balance sheet to review:
 - the variation across all the assets as well as each asset through comparison of different periods to realize the variation in the enterprise's business size and capacity;
 - whether the capital structure (capital allocated for each asset) is reasonable and how rapidly it affects the business process; identifying the proportion of each asset and comparing them across different periods indicates the capital structure's variation;
 - the enterprise's financial independence (or dependence) by comparing each type of capital across different periods, while simultaneously identifying and comparing the proportion of each type across different periods;
 - which investments and asset purchases the enterprise has made by looking at use of funds in accounting periods.
- Analyze financial indicators

The loan teller will define current strengths and weaknesses of the firm through the calculation and analysis of different financial indicators, using statistics from financial reports. He/she needs to identify the variation in financial indicators by comparing different accounting periods and using sector statistics.

Assessment of collateral (if any)

Collateral is the investor's available assets or assets created in the future whose transaction are not prohibited by the law. The investor can use one of these types to guarantee the loan from the VEPF. The investor is obliged to facilitate the VEPF's supervision and examination of the process of creating collateral. This practice does not obstruct or cause any difficulty in creating collateral.

The investor must be responsible for preserving collateral (including assets created by loans and other legal means). If collateral is damaged or depreciates, the borrower must notify the VEPF immediately, then repair, supplement or replace it with other collateral of equivalent value.

ii. On-site assessment

After a preliminary assessment, if the project is suitable for the consideration of a loan, the loan teller will carry out an on-site assessment of the borrower. This assessment mainly aims at verifying the authenticity of information in the loan dossiers and the feasibility of the project. The activities consist of:

- making plans for the on-site assessment and notifying the investor;
- carrying out the assessment, including checking collateral.

iii. Preparation of evaluation report

After the on-site assessment, the loan teller must finalize the following reports:

- an asset evaluating report (if any)
- the last evaluation report

The teller must then submit the report(s) to the management.

iv. Approval of the dossiers and decision on lending

Typically, it is the fund director who approves and makes decisions. Nevertheless, in case of higher level of lending, the dossiers must be passed by the fund's management board. After the board has approved, the director makes decisions on lending.

Stage 3. Signing the contract

At this stage, VEPP's loan teller must fulfil the following contents:

- the loan teller prepares the loan agreement contract, the collateral contract and the appendix “detailed use of loans” and submits them to the head of the credit department before submitting to the director;
- signature of contract and the appendix between the director and the investor's legal representative;
- finalize all information in the contract (number, date, appendix, etc.) and send to relevant parties;
- give the investor instructions to register secured transactions at the Centre of Secured Transactions of the Ministry of Justice and accept registered dossiers for secured transactions for storage;
- enter the contract book, store loan dossiers and signed papers.

Stage 4. Disbursing the loan and collecting the debt on schedule

After the contract is signed, the loan teller, along with the project owner and relevant parties, implements the disbursement procedure, involving:

- finalizing withdrawal dossiers;
- preparing an on-site evaluating report before disbursement;
- preparing a covenant and repaying commitment;
- fund director's decision to disburse;
- disbursing once or several times;
- announcing disbursement to the borrower and the guarantee bank (if any);
- preparing the appendix of investment credit and repayment schedule;
- keeping track of repayment and debt collection on schedule.



APPENDIX 2. CONTACT INFORMATION OF FINANCIAL ORGANIZATIONS



1. Vietnam Environment Protection Fund

Website: www.vepf.vn
Address: 6th floor, Map Publishing House,
85 Nguyen Chi Thanh, Dong Da, Hanoi
Tel: (+84) 24.37951221 Fax: (+84) 24.39426329



2. Vietnam Development Bank VDB

Website: www.vdb.gov.vn
Address: 25 Cat Linh, Ha Noi
Tel : (84-24) 3736 5659 - Fax: (84-24) 3736 5672
Contact point: Nguyen Thuy Ha, Ext 3456



3. Energy Efficiency and Cleaner Production (EE-CP)

Supporting Program for Energy Efficiency and
Cleaner Production (EE-CP/IFC)
3rd floor, 63 Ly Thai To, Hoan Kiem
Ha Noi, Viet Nam
Tel: +84-24-3824 7892, ex 610;
Fax: +84-24-3824 7898
Contact point: Vu Tuong Anh, Phone: +842439378742 Ext: 3456
Email: Vanh1@ifc.org



4. National Technological Innovation Fund (NATIF)

National Technological Innovation Fund (NATIF) – Ministry of Science
and Technology. 39 Tran Hung Dao, Hoan Kiem, Hanoi
Website: www.natif.vn;
Email: natif@most.gov.vn
Contact point: Le Tuyet Nga
Hand phone: 0936 485 833 Email: le_ngatuyet@yahoo.com



5. Vietnam Energy Efficiency for Industrial Enterprises (VEEIE)

World Bank
8th floor, 63 Ly Thai To, Hoan Kiem, Hanoi
Website: <http://projects.worldbank.org/P151086?lang=en>
Email: hnguyen9@worldbank.org
Contact point: Nguyen Chau Hoa
Hand phone: 0903468165



6. HD Bank

HD Bank, Capital branch
14-16 Ham Long, Hoan Kiem district, Hanoi
Website: www.hdbank.com.vn
Nguyen Thi Thu Ha – Enterprise Client Department
Hand phone: 01688456966
Email: hantt17@hdbank.com.vn

7. Green Growth Supporting Fund (GGSF)

Address: P203, B4, Diplomatic Compound,
298 Kim Ma Str., Ba Dinh, Ha Noi
Tel : 024. 3 7265411
FAX: 024. 3 7265414

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Vienna International Centre · P.O. Box 300 · 1400 Vienna · Austria
Tel.: (+43-1) 26026-0 · E-mail: info@unido.org
www.unido.org