Project Information Document/Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 18-Aug-2017 | Report No: PIDISDSC23005
**BASIC INFORMATION**

### A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Project ID</th>
<th>Parent Project ID (if any)</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam</td>
<td>P164938</td>
<td></td>
<td>Vietnam Scaling Up Energy Efficiency Project (P164938)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated Appraisal Date</th>
<th>Estimated Board Date</th>
<th>Practice Area (Lead)</th>
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<tbody>
<tr>
<td>EAST ASIA AND PACIFIC</td>
<td>Dec 14, 2017</td>
<td>Mar 28, 2018</td>
<td>Energy &amp; Extractives</td>
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<table>
<thead>
<tr>
<th>Financing Instrument</th>
<th>Borrower(s)</th>
<th>Implementing Agency</th>
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<tr>
<td>Investment Project Financing</td>
<td>SOCIALIST REPUBLIC OF VIETNAM</td>
<td>General Directorate of Energy, Ministry of Industry and Trade</td>
</tr>
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</table>

#### Proposed Development Objective(s)

The Project Development Objective is to improve energy efficiency in Vietnam's industrial sector through the mobilization of commercial financing. The project will thereby contribute to achieving the government's energy saving and greenhouse gas emission reduction objectives.

#### Financing (in USD Million)

**SUMMARY**

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Total Project Cost</td>
<td>337.30</td>
</tr>
<tr>
<td>Total Financing</td>
<td>337.30</td>
</tr>
<tr>
<td>Financing Gap</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**DETAILS**

| Total Non-World Bank Group and Non-Client Government Financing | 251.00 |

| Private Capital and Commercial Financing | 251.00 |

| of which Private Capital | 251.00 |
B. Introduction and Context

Country Context

1. **Vietnam has experienced impressive economic growth and poverty reduction in the past 25 years.** The country’s Gross Domestic Product (GDP) has grown from US$ 33.6 billion in 2000 to US$ 202.6 billion in 2016 and access to electricity services - which was below 10 percent in 1986 - has grown to 99.2 percent in 2014, contributing to reducing poverty and boosting shared prosperity. Expanded grid electrification of rural households has been mirrored by a sustained increase in GDP per capita. Rural electrification has been a critical component of the government’s program to eliminate poverty, redress imbalances in development, and improve overall welfare levels by providing reliable lighting sources, better living conditions, health care, and other rural services. Using the extreme international poverty line of US$1.25 PPP per person per day, the extreme poverty headcount in Vietnam fell from 64% in 1993 to less than 3% in 2012.

2. **Vietnam is one of the most energy intensive countries in East Asia.** Its energy intensity of GDP is steadily increasing, and its energy elasticity of GDP is estimated at 2, compared to less than 1 for most countries\(^1\). As a result, the final energy consumption tripled over the past decade. Industrial growth has been one of the key drivers of Vietnam’s increasing energy intensity, accounting for almost half of the final energy use. Because industry is the most energy-intensive economic sector, this increase in the industrialization of Vietnam’s economy by itself contributes to the increase in Vietnam’s overall energy intensity.

3. **The country’s emissions are expected to increase dramatically by 2030.** Between 2010 and 2030, Vietnam’s overall GHG emissions are projected to increase fivefold, per capita emissions fourfold, and the carbon intensity of GDP by 20 percent. The government recognized the importance of green growth and passed the Vietnam Green Growth Strategy for period 2011-2020 with vision to 2050, which aims to restructure and improve economic institutions towards more efficient use of natural resources and improved competitiveness of the economy. The strategy is intended to address climate change, and contribute to poverty reduction and sustainable economic development. A key strategic objective is to encourage energy efficiency with a 2020 target to reduce the intensity of greenhouse gas emissions by 8-10 percent as compared to 2010, and reduce emissions from energy activities by 10-20 percent compared to business as usual case.

4. **Vietnam has also pledged, in its Nationally Determined Contribution (NDC) submitted to the United Nations Framework Convention on Climate Change (UNFCCC), to reduce GHG emissions by 8 percent by 2030 compared to the business-as-usual scenario.** One of the measures to achieve the mitigation target is to “improve effectiveness and efficiency of energy use”, with a focus on manufacturing industries where energy consumption is high. Vietnam has ratified the Paris Agreement of the UNFCCC, through Resolution No 93/NQ-CP on October 31, 2016.

**Sectoral and Institutional Context**

**Energy Sector Context**

5. **Vietnam’s energy sector is facing two major challenges** to meet future energy demand: (a) resource constraints and energy security; and (b) high energy demand and considerable financing needs. Vietnam has achieved a 98 percent electricity access rate connecting over 20 million households and industry and commercial customers – this is a remarkable achievement. Today’s main energy challenge is to provide customers with reliable electricity services and meet future demand. Per capita electricity consumption remains relatively low (that is, one-third of China), and it is anticipated that electricity demand will continue to grow fast for the next two decades. Current demand projections show a dramatic increase from 32 GW of installed capacity in 2013 to 70 GW in 2020 to 120 GW in 2030.

6. **Vietnam has limited domestic energy resources and will rely increasingly on imported coal to meet future energy needs.** Most of the larger hydropower projects are developed, and Vietnam will need to improve the regulatory and pricing framework to further develop smaller hydro and largely unexplored solar and wind potential. There is potential to bring more gas into the market from domestic fields. However, these resources will not materially alter the dependence on coal for power generation and industrial usage in the near to medium term. Therefore, increasing reliance on energy sources from abroad over the next decade raises issues of energy supply security, vulnerability to international price fluctuations, and subsequent impacts on domestic energy prices. The cost of energy to Vietnam’s consumers currently amounts to around US$14–15 billion per year. In the power sector alone, the financing needs are about US$5-6 billion annually to meet future demand for generation and network investments.

7. **Meeting future energy demand by improving EE is the single best and lowest cost option to improve energy security,** help consumers save and cope with potential rate hikes, reduce pollution, and mitigate climate change. If stronger programs and policies were put in place, current wasteful practices could be reduced and more efficient energy use technology could be adopted. This can meet a sizable portion of the business-as-usual demand for increased energy services, at costs which are typically one-fourth the cost of additional energy supply. The Bank’s Low Carbon Study has demonstrated that Vietnam could save up to 11 GW of new generation capacity by 2030 if comprehensive demand-side EE investments are carried out.
8. The Vietnamese government passed a Law on Energy Efficiency and Conservation, issued a series of decrees by the prime minister to promote EE, and set a target of 5–8 percent of energy savings from 2012 to 2015 compared to the forecast energy demand. The set target of energy saving has been relatively achieved, overall energy saving for the period was 5.81%. The Vietnam Energy Efficiency Program (VNEEP) is a national target program and the first ever comprehensive plan to institute measures for improving EE and conservation in all sectors of the economy in Vietnam. VNEEP Phase I (VNEEP-I) from 2006 to 2010 aimed to actively start up all components of the program, and VNEEP Phase II (VNEEP-II) from 2011 to 2015 aimed to expand each component, based on lessons learned from Phase I. In addition to the government’s national programs, a number of parallel efforts have been initiated in direct cooperation with donor agencies. Also, to promote efficient use of electricity and reduce consumption, the government has introduced time-of-use electricity tariffs for medium and large customers and developed an EE standard and labeling road map. A pilot demand side response program using the time-of-use tariff was implemented by the Ho Chi Minh City Power Company (PC) under the Distribution Efficiency Project financed by the World Bank.

9. Despite these initiatives for EE from both the government and donor community, significant barriers remain such that many energy-saving opportunities remain unexploited. The constraints to EE investments are usually not due to the financial viability and maturity of EE technologies but to market failures and barriers, which include (a) low or subsidized energy pricing; (b) the small share that energy costs represented in operating costs, leading to consumers’ low interest in energy conservation; (c) a lack of institutional champions due to the fragmented nature of EE measures; (d) limited financing for the up-front capital expenditure; and (e) lack of EE awareness and capacity to identify and develop EE projects.

Banking Sector Context

10. Vietnam’s financial system is a bank-based system. According to the State Bank of Vietnam (SBV), by the end of 2015 the banks’ assets were almost 3.8 times of GDP and accounted for more than 90 percent of financial sector’s total assets. By the end of 2016, the banking sector consisted of 97 banking entities including 4 fully state-owned commercial banks, 33 joint-stock banks, 51 foreign banks and branches, and 2 policy banks. The top 10 banks account for approximately 78 percent of the assets of the entire banking system. Much of the rapid credit growth in recent years has occurred through the banking system. According to SBV, credit growth was at approximately 18 percent in 2016, compared to the targeted 15-18 percent in the beginning of the year. However, continuing weaknesses include undercapitalization and a suboptimal allocation of resources. The level of non-performing loans (NPLs), which was high in the past, has lowered through recent debt restructuring. The NPL ratio across the sector was around 2.8% at the end of 2016.

11. Capital markets in Vietnam remain small and underdeveloped but growing. As reported by the MOF, by the end of 2016, the combined stock market and bond capitalization was 71 percent of GDP, compared to 56.5 percent in 2014. Capitalization remains low compared to other countries in the region, such as 106 percent in Thailand and 136 percent in Malaysia in 2014. Total Government bond issuance volume in 2016 was estimated to reach VND280 trillion (i.e. more than USD12 billion). Vietnam’s formal market is highly retailed in nature with more than 98 percent of accounts registered with the Vietnam Securities Depository.

12. Interest rates have been on a downward trend since 2013 and they stabilized in 2016. While the caps on deposit rates were removed, deposits of 6 months and below are still subject to a cap of 5.5 percent per annum. Recently, a few banks have attempted to cut deposit interest rates owing to favorable macro-conditions, including good liquidity and low inflation, but smaller banks have kept the higher rates to maintain or expand market shares. Low inflation and declining deposit rates may also motivate many retail depositors to switch to higher-yield investment
channels such as stocks and properties. The SBV used several monetary policy tools to lower lending rates, such as (i) requiring credit institutions to reduce lending rates by cutting and managing operation costs and (ii) keeping low discount rates, thereby encouraging low interbank rates. To date, Vietnamese dong lending rates to prioritized sectors are commonly set at 6-9 percent p.a. for short-term loans, while medium- and long-term rates charged by state-owned commercial banks remain in the 8–10 percent p.a. range; lending rates to normal manufacturing/business sectors commonly range of 7-10 percent p.a. for short-term loans and 9-12 percent p.a. for long-term loans.

13. **The EE market is still nascent in Vietnam due to significant barriers**, despite government’s commitment to energy efficiency and several initiatives supported by the Government and bilateral and multilateral donors. In the banking sector, only a few local financial institutions have dedicated EE lending as part of their green financing business line, which accounts for only a small fraction of the loan portfolio. Most of the existing EE lending is focused on a small number of large industrial companies with high creditworthiness. On the contrary, many industrial enterprises (IEs) and energy service providers (ESCOs) do not have the same creditworthiness or equity resources as the larger companies, and therefore have limited access to capital from the local banking sector. In addition, many local banks lack experience and capacity to appraise EE investments or have a high risk perception of such investments, limiting opportunities to unlock the energy saving and climate mitigation potential of the industrial sector.

**Relationship to CPF**

14. **The project is consistent with the World Bank Country Partnership Framework (CPF) for FY18-22** and contributes directly to the ‘Focus Area 3: Environmental Sustainability and Resilience’, with the objective to “promote low carbon energy generation, including renewable energy and energy efficiency, and reduce GHG emission”. Also, the project will align with “Focus Area 1: Enable Inclusive Growth and Private Sector Participation” through support private participation and mobilization of commercial financing.

15. **The project contributes to the Bank’s “twin goals”** of eliminating extreme poverty and supporting shared prosperity through economic growth in the bottom two quintiles. The project is expected to generate positive poverty reduction by comparatively lowering energy bills for consumers, reducing air pollution and CO₂ emissions and mitigating climate change impacts.

16. **The project is also closely aligned with the World Bank Energy Strategy and contributes to the Bank’s Energy Engagement Strategy for Vietnam** to support supply and demand side energy efficiency which is a key engagement pillar. The project will leverage the recently closed Clean Production Energy Efficiency Project (CPEE) that provided the analytical underpinning of the Bank’s EE engagement in industrial enterprises, and the Vietnam Energy Efficiency for Industrial Enterprises (VEEIE) project which was recently approved. Furthermore, the project will contribute to the government objective of Vietnam’s National Energy Development Strategy up to 2020 with vision to 2050; Vietnam Green Growth Strategy period 2011-2020, vision to 2050; Vietnam’s Nationally Determined Contribution (NDC) on GHG emission reduction by 2030; Law on Energy Efficiency and Conservation; and Vietnam Power Development Plan VII period 2010-2020, vision to 2030.

**C. Proposed Development Objective(s)**

17. **The Project Development Objective is to improve energy efficiency in Vietnam’s industrial sector through the mobilization of commercial financing.** The project will thereby contribute to achieving the government’s energy saving and greenhouse gas emission reduction objectives.
Key Results (From PCN)

18. The achievement of the Project Development Objective will be assessed using the following key outcome indicators: (i) Projected lifetime energy savings from energy efficiency investments (MWh), (ii) commercial finance mobilization (US$ million).

19. Appropriate intermediate result indicators, including annual net greenhouse gas emission reduction will be developed during project preparation.

D. Concept Description

20. The Project has been designed to help remove the principal barriers to investments in industrial Energy Efficiency (EE) projects. It builds on the existing IBRD Vietnam Energy Efficiency for Industrial Enterprises (VEEIE) project which provides a $100 million credit line to participating financial institutions (PFIs). The project was approved by the Bank on April 14, 2017 and is expected to be effective by September 2017. The Technical Assistance (TA) and capacity building activities will address the knowledge, institutional, and capacity-building needs of the banking and industrial sectors, mitigate risk concerns of enterprises, and strengthen government supervision of industrial EE and energy conservation. Those efforts will be accompanied by the establishment of a risk sharing facility, backed by the GCF guarantee instrument, which will address concerns of local financial institutions regarding EE investments and mitigate credit risk of loans extended to industrial enterprises for EE, and thus encourage scaling-up of EE loans in the market.

21. The project consists of two components:

   i. Risk Sharing Facility: Capitalized with $3 million GCF Grant, and a $75 million GCF Guarantee
   ii. Technical Assistance: Funded by an $8.3 million GCF Grant

22. The Project will finance various sub-projects in energy intensive industries such as cement, iron and steel, and pulp and paper, public and private; using potential energy saving measures such as: (a) adoption of energy saving industrial technologies (e.g. efficient industrial boilers, kilns, and heat exchange systems); (b) recovery and utilization of waste and waste heat; (c) installation of highly efficient mechanical and electrical equipment (e.g. motors, pumps, heating and ventilation equipment); and (d) industrial system optimization to reduce energy use. Use of RE sources to decrease fuel and/or electricity consumption in IEs may also be considered. Investments may include (a) cogeneration facilities or process furnaces and stoves and (b) solar water heaters for sanitary hot/warm preparation, and/or power PV. The project will share the VEEIE eligibility criteria for PFIs and subprojects as well as target industrial sectors and technologies.
Table 1: Financing Plan

<table>
<thead>
<tr>
<th>Component</th>
<th>Currency</th>
<th>GCF</th>
<th>PFIs (loans)</th>
<th>IEs/ESCOs</th>
<th>Total EE Investment</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Guarantee</td>
<td>Grant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Risk Sharing Facility</td>
<td>US$ m</td>
<td>75</td>
<td>3</td>
<td>201</td>
<td>50</td>
</tr>
<tr>
<td>2. Technical Assistance</td>
<td>US$ m</td>
<td>-</td>
<td>8.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>US$ m</td>
<td>75</td>
<td>11.3</td>
<td>201</td>
<td>50</td>
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</table>

Component 1: Risk Sharing Facility

23. The GCF Risk Sharing Facility mobilizes additional lending from PFIs own resources by mitigating credit risks associated with commercial loans to industrial enterprises for energy efficiency purposes. The objective of the Facility is to issue partial credit risk guarantees to mobilize private sector lending and equity, and contribute to opening the market for commercially financed energy efficiency investments. Global experience shows that providing partial credit guarantees can be effective in enhancing creditworthiness, easing collateral requirements of potential borrowers, and incentivizing banks to lend at more attractive terms. Currently, financial institutions’ lack of understanding and perceived high risk on energy efficiency investments make it difficult for IEs to borrow for such projects than for normal business purposes. Eligible industrial enterprises would be borrowers under the Facility and they would benefit from access to financing at more competitive terms and at lower collateral requirements than would be available to them on a stand-alone basis. PFIs as lenders under the component would benefit from low cost credit risk mitigation and access to new lending opportunities in the area of industrial energy efficiency.

24. The Facility would be capitalized with a seed funding Grant of US$3 million and a Guarantee of US$75 million from GCF. The Grant would be used to pay for operating expenses associated with the Facility in the first two operating years and provide funding for expected guarantee payouts. The Guarantee would disburse to the Facility only if needed as additional capital. GCF would have the option of clawing back disbursed guarantee payments should the Facility be able to recover some of the losses being guaranteed.

25. The Facility would be managed by a Program Implementation Entity (PIE) and it would issue partial credit guarantees (or “sub-guarantees”) to eligible PFIs to support their loans for eligible EE subprojects undertaken by IEs. It is expected that guarantee coverage over the life of the project would on average be 50 percent, but the PIE would have flexibility to set the coverage ratio based on market needs, with the expectation that higher than 50 percent guarantee coverage may be needed in the initial years of the program. The sub-guarantees would only cover credit risk arising from defaults on underlying loans. PFIs would be required to pay a sub-guarantee fee to the facility towards costs associated with program implementation and GCF guarantee, and towards expected guarantee calls resulting from possible borrower defaults on the covered loans. The objective of sub-guarantee pricing is to enable Facility cost recovery while keeping the sub-guarantees attractively priced for PFIs.

26. The Facility would pay sub-guarantee claims to PFIs if the underlying credit risks materialized (see Figure 1). The first sub-guarantee claims would be paid from the Facility’s own resources to the extent funds would be available from the GCF seed grant and guarantee fee collections. If capital in the Facility fell short to meet all claims, which would

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2 Industrial Enterprises and Energy Service Companies representing 20% equity for each investment
3 The PIE will be selected on competitive basis and the due diligence on PIE will be carried out during project preparation. See also para 58-61.
only happen if actual losses exceeded expected losses, the GCF guarantee could be called for up to US$75 million to meet the additional claims. However, the likelihood of the GCF guarantee being called is expected to be small due to robust requirements to be set for guaranteed loan appraisal and portfolio risk management, and therefore it is expected that in the base case the GCF guarantee would not be called.

Figure 1: Sub-Guarantee Issuance and Payout Sequence

Component 2: Technical Assistance (TA)

27. **The TA and capacity-building component** will assist (a) the MoIT and relevant government agencies, which are responsible for EE policies and targets, to implement voluntary agreements with relevant industries, improve incentives for industry to carry out EE investments, and develop mandatory EE standards and benchmarks in the energy-intensive industries; (b) PFIs to improve their knowledge, experience, and expertise in identifying, appraising, and implementing EE lending projects in the industrial sector and business development to generate deal flows; and (c) IEs and EE service providers (such as Energy Service Companies [ESCOs]) to develop bankable projects. This component will be closely linked with the VEEIE project as well as work undertaken through the Clean Production and Energy Efficiency (CPEE) Project on developing EE policies and industry voluntary agreements.

28. **TA and capacity building to the MoIT** will support (a) preparation for implementation of the proposed phase 3 of national EE target program for next five year period; (b) strengthening of the policy and legal and regulatory framework for EE in IEs; (c) development of relevant energy use standards and establishment of EE industrial benchmarks; and (d) development of the ESCOs, scaling-up and encouraging EE voluntary agreement, and conducting a communication campaign to raise awareness on EE for IEs. In addition, the adoption of Energy Management Systems (ISO 50,001) is considered the most effective practice for industrial eco-systems to generate energy efficiency and GHG reduction projects on a sustaining basis. TA will support MOIT to promote and strengthen capacity of enterprises in application of ISO 50 001 or Energy Management System.

29. **TA and capacity building to the PFIs** include (a) business startup, including creation, organization, staffing, and initial business plan of the EE lending business unit (or team); (b) capacity building and training, including support for the development of necessary financial instruments, procedures, and the creation of an adequate knowledge base to evaluate and extend EE loans; (c) marketing and development of an EE subproject pipeline; (d) support to due diligence
of eligible EE sub-loans, including financial, technical, social, and environmental assessments; and (e) development of energy-conservation-related financing instruments and risk management tools.

30. **TA and capacity building for IEs** will include support to (a) identify EE projects and prepare relevant energy audits, technical design, and EE project preparation and (b) raise awareness through a communication campaign organized jointly with relevant industry associations. Capacity building on safeguards for the PFIs, ESCOs, and IEs as well as on-the-job training will be provided. TA to ensure adequate capacity for the review and implementation of safeguard issues will also be considered.

31. A detailed **TA and capacity-building program** for the MoIT, PFIs, and IEs and the associated procurement plan will be developed for the first 18 months during project preparation.

**SAFEGUARDS**

A. **Project location and salient physical characteristics relevant to the safeguard analysis (if known)**

The project will be implemented by the selected ESCOs and industrial Enterprises located in the whole country.

B. **Borrower’s Institutional Capacity for Safeguard Policies**

The MOIT has the overall project coordination responsibility for the project and is responsible for the implementation of capacity building to MOIT under Component 2. MOIT has gained significant safeguards experiences in execution of a number of Bank-financed projects including Vietnam Demand-Side Management and Energy Efficiency Project (DSM-EE Project), Clean Production and Energy Efficiency Project (CPEE), Renewable Energy Development Project (REDP), and Distribution Efficiency Project (DEP). MOIT is also implementing agency of Vietnam Energy Efficiency for Industrial Enterprises (VEEIE) which is similar to this project in term of project nature and type of subproject investment.

The Project will provide partial guarantee to Participating Financial Intuitions (PFIs) for its loan to eligible industrial enterprises under Component 1. The PFIs have full responsibility for the EE lending process and approvals including oversight of safeguards compliance of the project. Each PFI will form a Project Implementation Unit (PIU) with dedicated teams, supported by technical, environmental and social safeguards, and procurement experts. By now, two PFIs under VEEIE i.e. Vietcombank and BIDV will be eligible for participating the Project. During the project preparation, other potential PFIs will be considered.

Vietcombank and BIDV have safeguards experience in implementing REDP. BIDV has also participated the Rural Finance 3 Project (RF3). In BIDV, there is an Environmental Division equipped with 03 staffs with environmental background and are familiar with WB’s safeguard policies explicitly to apply in the agricultural subprojects. However, other PFIs may not have such a safeguard capacity. It is anticipated that most ESCOs and Industrial Enterprises, which will bear the primary responsibility for environmental management of the project, may not have previous experiences with the Bank’s safeguards policies or lack capacity in this area. During project preparation the Bank will evaluate the institutional capacity of the selected PFIs, ESCOs, and Industrial Enterprises for environmental management and supervision. If this capacity is not adequate, technical assistance will be defined and incorporated into the project to strengthen this capacity accordingly.
C. Environmental and Social Safeguards Specialists on the Team

Giang Tam Nguyen, Social Safeguards Specialist
Thuy Cam Duong, Environmental Safeguards Specialist
Thong Trung Le, Social Safeguards Specialist

D. Policies that might apply

<table>
<thead>
<tr>
<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
</tr>
</thead>
</table>
| Environmental Assessment OP/BP 4.01 | Yes        | The policy is triggered due to potential environmental and social impacts associated with guarantee operation of subprojects under component 1 and certain TA activities under component 2. The project will bring about positive impacts to the environment as it will contribute to the reduction of GHGs and pollutants, increasing energy savings and encourages the promotion of environmental good industries and good practices. Under the component 1, the Project will provide partial guarantee for various subprojects which are exactly similar in term of scale, type, and nature of investments financed under the Vietnam Energy Efficiency for Industrial Enterprises Project (VEEIE). These include subprojects under energy intensive industries such as cement, iron and steel, and pulp and paper, public and private; using these potential energy saving measures: (a) adoption of energy saving industrial technologies (e.g., efficient industrial boilers, kilns, and heat exchange systems); (b) recovery and utilization of wastes and waste heat; (c) installation of highly efficient mechanical and electrical equipment (e.g. motors, pumps, heating and ventilation equipment); and (d) industrial system optimization to reduce energy use. The sub-projects mostly involve small scale construction for installation or replacement of energy efficient technologies and equipment. The environmental impacts associated with the sub-projects during construction/installation of new equipment could be noise, air emission, domestic waste, labor safety, and disposal of old parts and equipment which may contain PCB and hazardous...
waste.

The impacts during operation period of new equipment and facilities potential include air emission, solid waste, wastewater, safety issue during operation, chemicals and solid wastes which are considered as at a lower amount or lesser polluted than those arisen from old technologies and equipment. The project is expected to have overall positive social benefits because it promotes EE and thus reduces greenhouse gas emissions and other pollutants into the atmosphere. It will also have positive impacts from the perspective of consumers, and workers who are employed by the participating IEs. In a very rare case, the subprojects may have impacts on land acquisition or on the ethnic minority in the subproject areas. New skills are required for workers in order to enable them adapting with the new working context.

Similar to the original VEEIE, It is anticipated that most the sub-projects guaranteed under the Scaling Up Project are category B with the above noted typical impacts which are assessed as localized, varying from small to moderate scale and mitigation measures could be readily designed.

It is expected that the subprojects under the Bank’s guarantee operation will not be identified by appraisal. As such, an Environmental and Social Management Framework (ESMF) will be prepared by the MOIT to guide the environmental and social development process to ensure that the TA under the WB’s financing under component 2 and guarantee under component 1 are in accordance with the Bank’s safeguard policies and national regulations. As the nature and location of investments under the original VEEIE and the Scaling Up Project are the similar, it is planned that during the preparation, the ESMF of the original VEEIE will be updated and adopted for the Scaling Up Project.

By appraisal, public consultation and disclosure of the ESMF for the Scaling Up Project will be conducted in line with the Bank’s safeguard policies and national requirements.

Natural Habitats OP/BP 4.04 No The exact locations of guaranteed subprojects are
unknown prior to appraisal. Similar to the original VEEIE, it is noted that most of the subprojects work will take place within existing premises of existing facilities and industries, hence they will be unlikely to cause negative impacts on natural habitats. In a rare case, the subproject may involve land acquisition, which takes place as an extension from the existing facilities. In that case, locations for land subprojects will be carefully considered in order to avoid potential adverse impact to natural habitat. The policy therefore is not triggered. The ESMF will include screening mechanism to exclude any subproject that could potentially have adverse impacts on natural habitats.

<table>
<thead>
<tr>
<th>OP/BP 4.36</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forests OP/BP 4.36</strong></td>
<td>Similar to the VEEIE, the project is not anticipated to involve forests and/or impact on the rights and welfare of local people and their level of dependence upon low quality natural forests and plantation forests. Therefore, the policy not triggered. The ESMF will involve screening process to exclude any activities that may have adverse impacts on forest.</td>
</tr>
<tr>
<td><strong>Pest Management OP 4.09</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Physical Cultural Resources OP/BP 4.11</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Indigenous Peoples OP/BP 4.10</strong></td>
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</tr>
</tbody>
</table>
The types of EE projects to be financed under this project could include: (a) adoption of energy saving industrial technologies (e.g., efficient industrial boilers, kilns, and heat exchange systems); (b) recovery and utilization of wastes and waste heat; (c) installation of highly efficient mechanical and electrical equipment (e.g. motors, pumps, heating and ventilation equipment); and (d) industrial system optimization to reduce energy use. It will be likely that the EE subprojects financed under the GCF-RSF will be within the existing premises of industrial facilities. However, this policy is triggered due to the possibility of the involuntary taking of land required for subprojects implementation cycle. The Resettlement Policy Framework (RPF) will be prepared to guide the compliance with the World Bank’s OP 4.12. Given the slightly different institutional arrangements between the GCF-RSF and VEEIE, the RPF will be revised to reflect the specific activities financed under this project and the institutional arrangements, including the roles and responsibilities of the IFIs and MOIT respectively.

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Dec 05, 2017

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

As this project will apply all safeguards instruments prepared for Vietnam Energy Efficiency for Industrial Enterprises Project (P151086) with necessary updates and revision. All draft and final safeguard instruments will be disclosed in-
country in an accessible place and in a form and language understandable to key stakeholders and in English at the Bank’s websites, prior to the beginning of appraisal.

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APPROVAL

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