



# Green Investment Facility

A new climate finance  
vehicle for leveraging  
Energy Efficiency  
finance while maturing the  
market for energy efficiency  
solutions in Vietnam



Danish Energy  
Agency



MOIT

MINISTRY OF FOREIGN AFFAIRS OF DENMARK  
**DANIDA** | INTERNATIONAL  
DEVELOPMENT COOPERATION

# Vietnam

## Surging demand for energy in the SMEs

The industrial sector in Vietnam is the single most energy consuming sector.

Moreover, it is the sector seeing the fastest growth in energy consumption.

Already by 2040 the sector is projected to account for half of total energy consumption of Vietnam.

The sector is characterized by a large proportion of small and medium-sized enterprises (SMEs), accounting for more than 40% of total energy consumption, and this share has been increasing over the years.

The potential for energy efficiency (EE)

in the SMEs has been found to be very considerable, although no overall account is available yet.

This is caused by a number of factors, such as low level of awareness of the EE solutions, poor efficiency of technologies on the market, difficulties to access funding and many more.

EE also offers a great opportunity for increasing the overall cost effectiveness of the SMEs in Vietnam.

## Green Investment Facility

Green Investment Facility (GIF) was launched by Ministry of Industry and Trade of Vietnam (MOIT) and the Danish government



in June 2015. The Facility was established as a pilot with US\$ 6M to prove the concept of this new financial design. The mechanism is now in operation and is generating results on the ground in the form of energy savings and CO2 reductions. The Facility is therefore now seeking additional partners



for the establishment of a permanent independent trust fund to continue and expand its operations. The permanent structure is expected to be in place and operational by mid-2017.

GIF is one of several components in a Danish – Vietnamese cooperation on

promotion of EE in SMEs: the Low Carbon Development in the Energy Efficiency Sector (LCEE). This program addresses several key barriers to EE in industries, including lack of awareness, insufficient supply of EE technologies and services and lack of supportive policies. The combined impact of these components is expected to result in a transformation of the market for some major energy consuming processes.

In the future, GIF is expected to continue all of the components in the LCEE program so as to secure a simultaneous intervention to overcome all key barriers to EE.

### **The financial offerings consist of a guarantee and a grant element**

- A bank guarantee of up to 50% of the loan taken out to finance an eligible EE projects
- An energy savings award (ESA) of 10 - 30% of the total funding on the condition of a proper implementation of the project. The award is measured by the percentage of energy savings obtained. In future the size of the award could be calculated according to other parameters such as MWh/year saved or carbon emission reduced per year.

## Achievements and lessons learned

In order to secure a real transformation of the markets for the EE technology, GIF has chosen to initially focus on a limited number of sectors and technology solutions. Currently, the following sectors and technology solutions are prioritized:

Sector	Technology solution
Food industry	Biomass boilers to replace coal or oil fired boilers Efficient cooling systems Solar energy for process heating
Ceramics industry	Replacement of traditional coal fired kilns by efficient LPG fired kilns
Brickindustry	Replacement of traditional clam kilns by efficient biomass fired continuous kilns Replacement of fired brick production by non-fired bricks

The solutions developed are also being supported outside of the three sectors where they apply.

For all the solutions prioritized GIF works with a wide network of stakeholders including hardware and service providers who are being offered training and capacity building.

By late January 2016, 36 applications have passed the eligibility check and are in various stages of processing. Six bank guarantees have been issued, one project has been completed and an award is expected

to be released for that project by February 2016.

The lessons learned confirm that in order to be effective, the consolidated GIF should comprise not only of the financial incentives but should address all major shortcomings in the market for EE solutions including lack of awareness and capacity of all market players: industrial energy users, technology

and service providers and the local lending banks.

Based on the current project pipeline it is expected that the costs of CO<sub>2</sub> abatement will be in the order of size of US\$ 20 / ton of CO<sub>2</sub> reduced directly through the projects supported. A successful market transformation will further generate an additional significant amount of carbon reduction, and the carbon reduction costs will be reduced correspondingly.

It is further estimated that each dollar spent



in GIF will leverage 6 dollars of investment from the banks and the SMEs.

## Theory of Change

The desired impact of the GIF is to reduce the fast growing carbon footprint of the industrial sector in Vietnam while at the same time increasing the competitiveness of the sector through increased EE. The vehicle is a transformation of the market for energy efficient technologies and solutions.

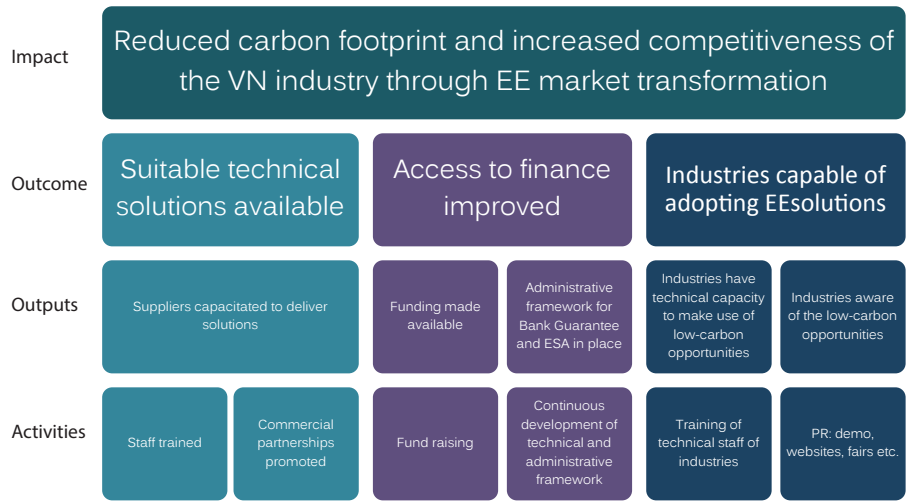
In order to realize this transformation, GIF is working to produce three outcomes:

- Mainstreaming efficient technologies and services through cooperation with suppliers

- Capacitating the industrial energy users to acquire and effectively make use of EE technologies
- Improving access to finance through the provision of financial incentives to viable projects

In the current setup, the GIF itself only deals with the financial incentive provision, while the supply and demand side outcomes are provided through other components of the LCEE program. In the future permanent setup of the GIF it is envisaged that the GIF will work to realize all the three outcomes.

The theory of change is illustrated below.



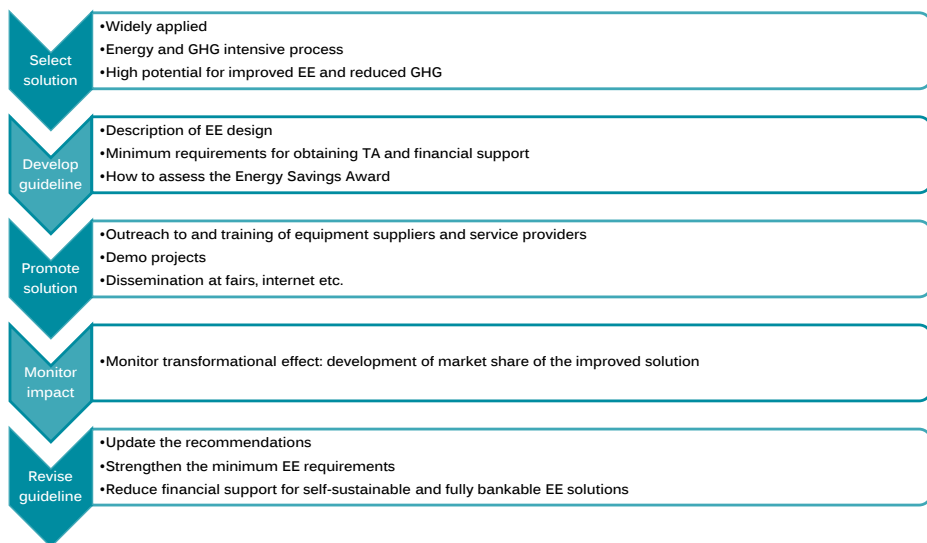


The results of the GIF are being continuously monitored. As the market for specific solutions and technology will be observed, the support elements will be gradually phased out to be eventually abandoned altogether.

In parallel, new and additional technologies will be adopted. Also new sectors will be included in the scheme, while the limitation to support only SMEs is planned to be abolished in due time. However, GIF will always remain focused on a limited number of solutions in order to be able to secure a market transformation for each solution supported.

## EE market transformation with GIF

Market transformation of a specific technology or process is encouraged in the following process:



While as a pilot GIF has been narrowly focusing on SMEs in three selected sectors, the scope of the mechanism is expected to grow in terms of solutions and sectors supported. Also in future large enterprises should become eligible for support.

## Fund organization

GIF in its permanent structure will be a trust fund. It will be managed by a board with participation of the donor organizations as well as Ministry of Industry and Trade and possibly other key stakeholder representatives.

The fund will held by a Fund Holding Bank (currently ANZ), while the fund administration will be managed by an independent professional organization registered in Vietnam.

## How to participate


Ministry of Industry and Trade of Vietnam (MOIT) and the Danish government invite organizations investing in climate change mitigation to become partners in the GIF.

Participation may involve financial support to the maintenance of the fund including the bank guarantee, the grant of the ESA and/or the technical assistance provided. GIF will be ready to accommodate interventions targeting the specific priorities of the donor.

By using GIF as a vehicle for transformation of the EE market, transaction time and costs can be reduced significantly for new donors joining the mechanism.

Interested parties are invited to join the design of the fund structure by taking part in the process leading up to the formal launching of the permanent GIF.

Tentative permanent structure	
Fund Board	MOIT; Danida; Grantors; industrial representative; other stakeholders
Trustee: Professional independent management unit registered in Vietnam	<ul style="list-style-type: none"> <li>• Application management</li> <li>• Technical guidelines</li> <li>• Promotional activities</li> <li>• Training and capacity building</li> </ul>
Service suppliers	<ul style="list-style-type: none"> <li>• Fund Holdings Bank (execution of guarantees and awards)</li> <li>• Technical service providers (project assessment)</li> </ul>



For more information about the GIF, please refer to the web page: <http://en.lcee.vn/>

Contacts:

Ministry of Industry and Trade  
Mr. Trinh Quoc Vu  
Dir. Dept. of Science, Technology and Energy Efficiency  
General Directorate of Energy  
+84 91353 4464  
[vutq@moit.gov.vn](mailto:vutq@moit.gov.vn)

Danida  
Embassy of Denmark, Hanoi  
Ms Tran Hong Viet  
Senior Programme Manager  
Energy and Climate Change  
+84 (4) 3935 2935  
[thviet@um.dk](mailto:thviet@um.dk)

Danish Energy Agency  
Jorgen Hvid  
Special Adviser  
Center for Global Cooperation  
+45 3392 6825

[jhv@ens.dk](mailto:jhv@ens.dk)