

# Financing Green Gas Stations

The Gas Station of the Future

**Mr. Antoine Zarifeh**

Head of Branch Network Division

Thursday 26 September 2019 @ 12:00

# Memorandum of Understanding

## **IPT Petrol Stations and Phoenix / Indevco**

(Signed during 6<sup>th</sup> Edition of Beirut Energy Forum in 2015)

to finance projects to green more than 150 petrol stations all over Lebanon



# Possible Efficient Solutions at a Petrol Station

## Energy Efficiency & Renewable Energy

- ❖ LED Lighting Retrofit & Lighting Control
- ❖ Solar Photovoltaic On grid and off grid
- ❖ Pumps Efficiency
- ❖ Waste Heat Recovery
- ❖ Energy Monitoring and Targeting

## Water Conservation Measures

- ❖ Carwash water reclaim and recycling system
- ❖ Rainwater harvesting solution
- ❖ Waste Water treatment : Storm Water treatment, Hydrocarbon Capture, oil & petrol separation solutions

## Environmental Management

- ❖ Environmental Impact Management (Leak & stock monitoring system, Environmental Management plan)
- ❖ Emissions Reduction/Vapor Recovery: Central Vacuum system
- ❖ Double containment systems (including piping & fittings)
- ❖ Green Roof & Heat Island effect reduction

# Phased approach to achieve targets

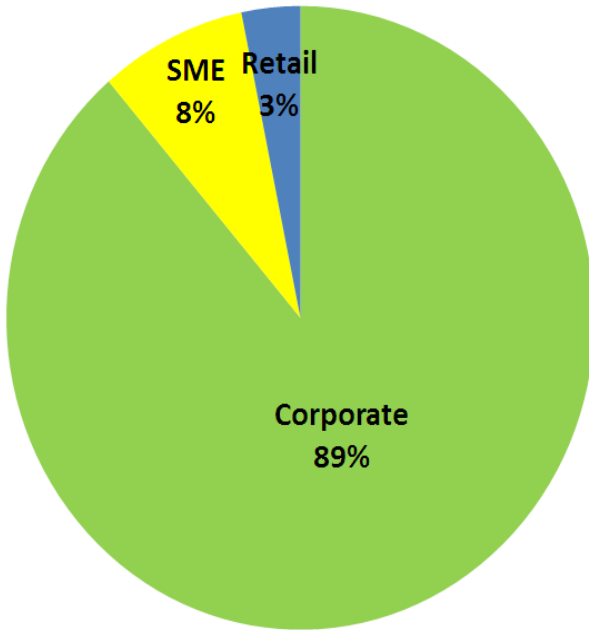
## Objectives per station

- ❖ Energy Savings : reduction of around 20%
- ❖ Renewable Energy Solutions : reduction of around 20% of energy demand
- ❖ Water Savings : reduction of around 50% water consumption
- ❖ Emissions reduction : 50% reduction in emission
- ❖ Wastewater treatment: Zero toxic discharge in stormwater and municipality sewer network
- ❖ Soil and Ground Water protection : Zero hydrogen contamination for soil and groundwater
- ❖ Corporate Social Responsibility
- ❖ Optional :
  - Adopting a management standard ISO 14001
  - Adopting a green facility certification program such as LEED or equivalent or EDGE

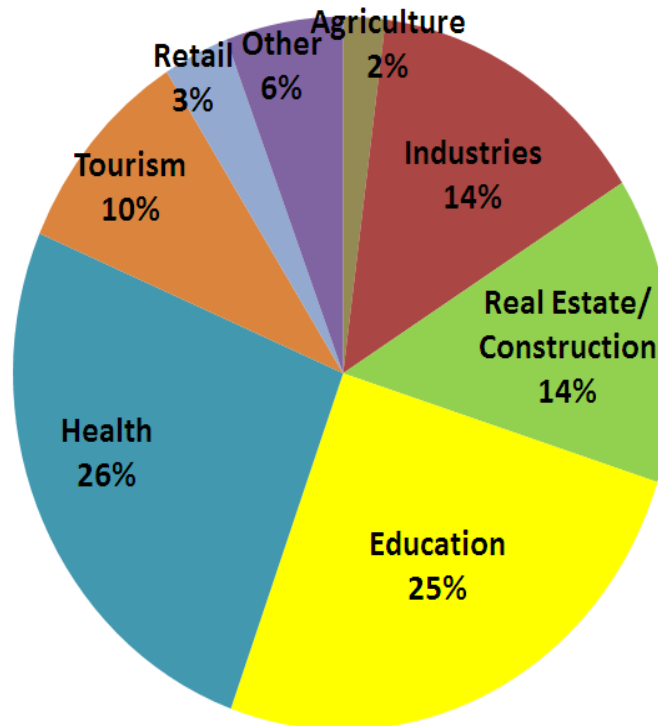
*Indicative estimation of investments range between US\$ 50,000 and US\$ 300,000  
with a payback period of **3 to 7 years***

# Indicative Portfolio Breakdown / SEF

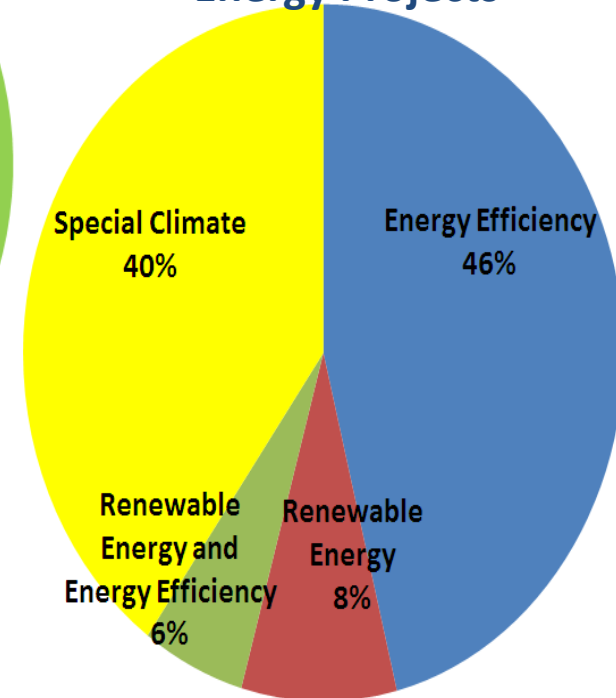
## By Amount



## By Sector



## By type of Energy Projects



**Number of Projects**  
**Energy saved**  
**GHG emission reduced**

**: 31**  
**: 4,160,835 Kwhe / year**  
**: 2,480 Tns Co2**

# Green Bonds issuance

**Program of US\$ 150 million**

**First tranche of US\$ 60 million**

- Subscribers are IFC for US\$ 45 million and EBRD for US\$ 15 million
- Moody's : Green Bonds Assessment GB1 - Excellent

**Fransabank SAL**

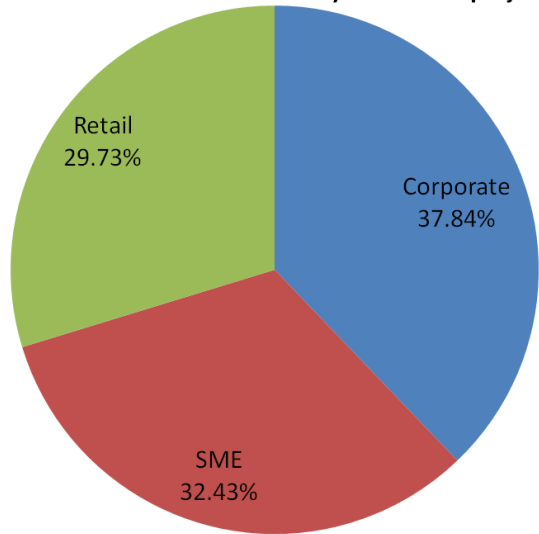
Green Bond Assessment - Series 1 Bonds

Summary analysis

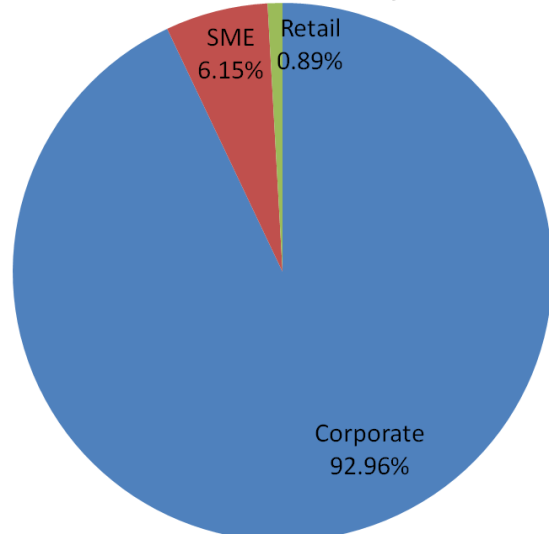


# Indicative Portfolio Breakdown / Green Bonds

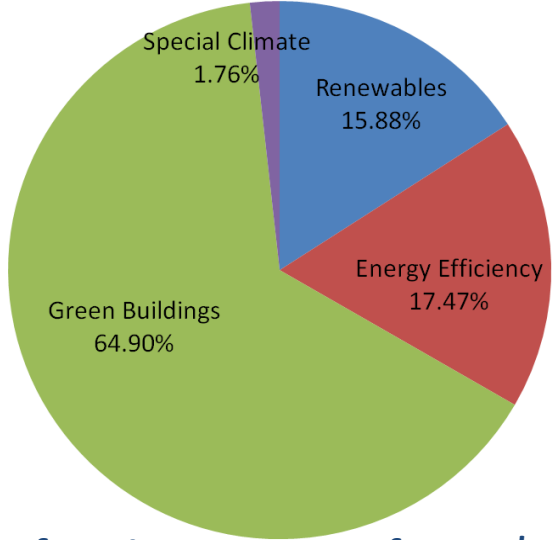
Green Bonds - Breakdown by number of projects



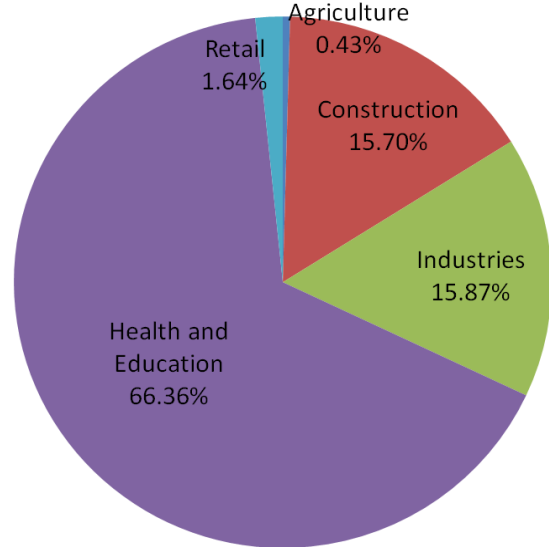
Green Bonds - Breakdown by amount



Green Bonds - Breakdown by energy type



Green Bonds - Breakdown by Sector



**Number of Projects : 48 for US\$ 45 million**  
**Energy saved : 7,432,307 Kwhe / year**  
**GHG emission reduced : 4,713 Tons Co2**

# Source of Financing

## **Low Interest rates, long tenors, procedure**

- NEEREA : Energy Efficiency, Renewable Energy, Green Building
- LEA : Environmental projects
- LEPAP : Environmental Pollution Abatement
- LEEREFF : Lebanese Energy Efficiency and Renewable Energy Finance Facility

## **Other acceptable interest rates and long tenors**

- Incentive loans
- European Investment Bank - Credit Line to productive sectors of the economy



# Cooperation with Institutions

**Banque du Liban**



**LCEC**



**IFC USD 40 million SEF credit line  
& Advisory Services**



**IFC & EBRD US\$ 60 million Green Bonds  
Issuance with “Excellent” rating from  
Moody’s**



**LEEREFF € 80 million Credit Line**



**DEG / FMO / Green for Growth Fund**



## NEEREA and LEA conditions

- Interest rates : **BDL Index – 4.81%** (currently 2.19%)
- Currency : US\$
- Tenor : depending on project up to 10 years
- Grace Period : depending on project up to 4 years
- Guarantees : on case by case basis
- Minimum : No minimum
- Maximum : US\$ 10 million
- Ceiling : up to 100% of project
- Commission to BDL : 0.4% once
- Disbursement : Fransabank will pay directly to the suppliers upon presenting bills

# NEEREA and LEA - Procedure



# About LEEREFF

**LEEREFF** is a dedicated Credit Line for companies wishing to invest in Sustainable Energy, including :

- Renewable Energy
- Energy Efficiency in Industry & Commerce
- Green buildings (commercial)

**LEEREFF** offers investment support through loans from the **Agence Française de Développement (AFD)**

**European Investment Bank (EIB)** & with :

- Interest Rate subsidies provided by BDL (**around 2%**)
- Free Technical Assistance by international engineers, financed by the EU.

Fransabank was selected among 5 banks to benefit from this line.



## LEEREFF conditions

- Interest rate : around 2%
- Currency : US\$
- Tenor : up to 15 years - depends on project
- Grace Period : up to 2 years - depends on project
- Guarantees : Mortgage, Personal Guarantee , Cash Collateral - on a case by case basis
- Minimum : equivalent of EUR 40,000
- Maximum : equivalent of EUR 15 million
- Ceiling : up to 80% of project
- Commission : No Commission
- Disbursement : Fransabank will pay directly to the suppliers upon presenting bills

# Procedure LEEREFF

