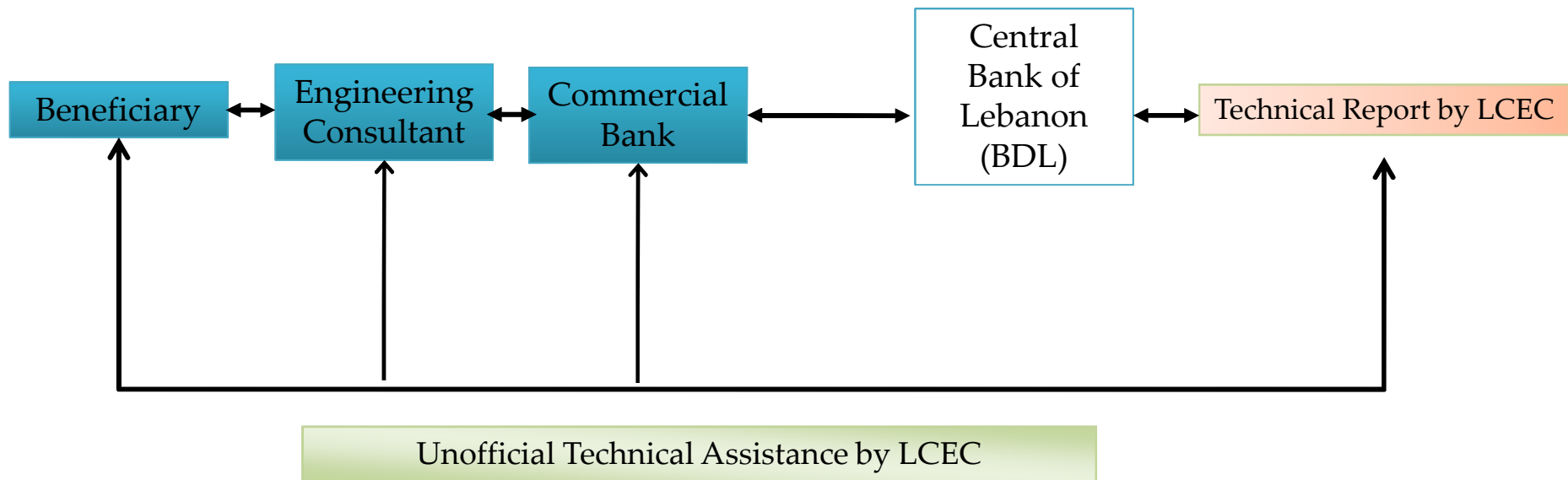




مصرف لبنان  
BANQUE DU LIBAN

# BDL Green Incentives

# Green Incentives Structure



BDL Green Incentives

Cost of Green Investments

$\leq 1\%$

## BDL Green Incentives

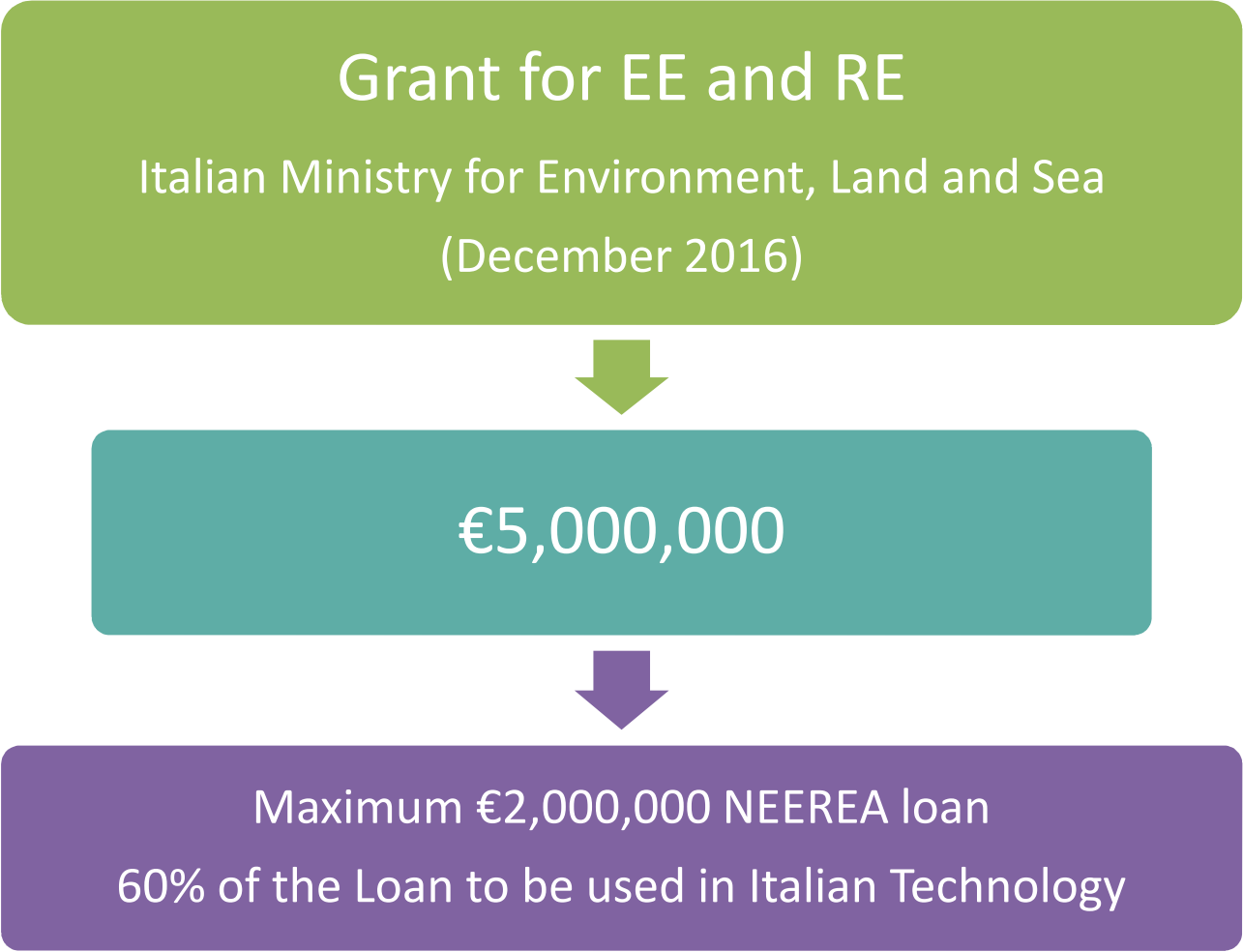


Up to **14** Years Maturity  
Including up to **4** Years Grace Period

# National Energy Efficiency and Renewable Energy Action

- Energy Efficiency measures.
- Renewable Energy base, i.e. Solar and Wind energy.







€80m. EE Loan

Productive Sectors

12 to 14 Yrs. maturity

≈ 1% interest rate

## Certified Green Buildings



- The amount of the Energy loan extended would be based on the following:

Nature of Project	Rating	Energy Loan Amount
New Project	Not rated	EE & RE Cost
	Certified	15% of Total Project Value
	Silver	25% of Total Project Value
	Gold	35% of Total Project Value
	Platinum	45% of Total Project Value
Existing Project	Rated or Not Rated	EE & RE Cost

*The certification system developed by LEED is adopted, or equivalent classifications from other internationally recognized systems.*



## Certified Green Buildings



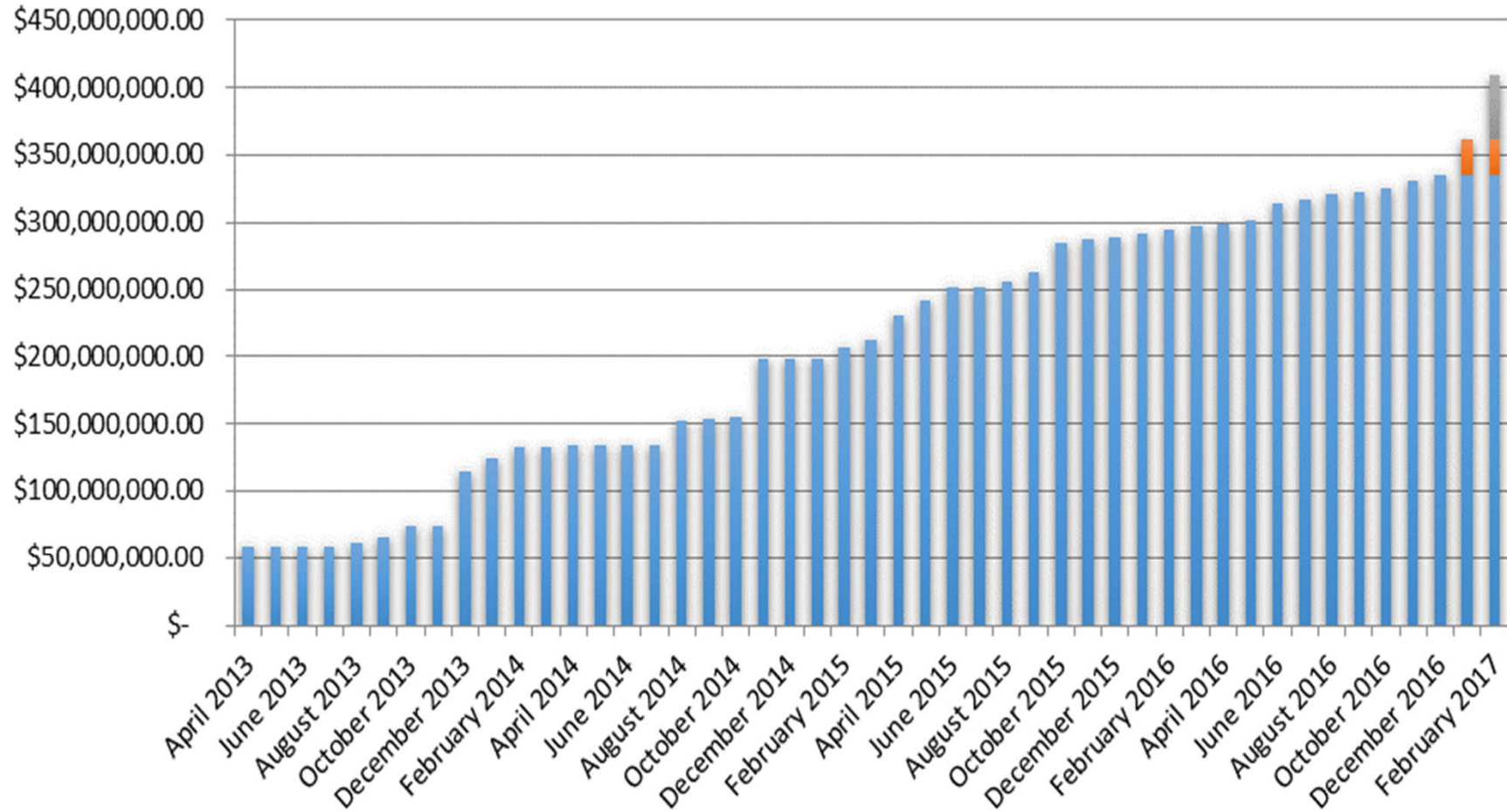
- New measures to be applied according to Energy/Atmosphere and Water Efficiency:

Nature of Project	Rating	Energy Loan Amount
LEED for New Construction	Not rated	EE & RE Cost
LEED for Core and Shell	Certified	15% of Total Project Value
LEED for Schools	Silver	TBD
LEED for Hospitality	Silver Plus	
LEED for Healthcare	Gold	
	Gold Plus	
	Platinum	
	Platinum Plus	
Existing Project	Rated or Not Rated	EE & RE Cost

*Other certification systems would be introduced as an addition to the acceptable certifications by BDL.*

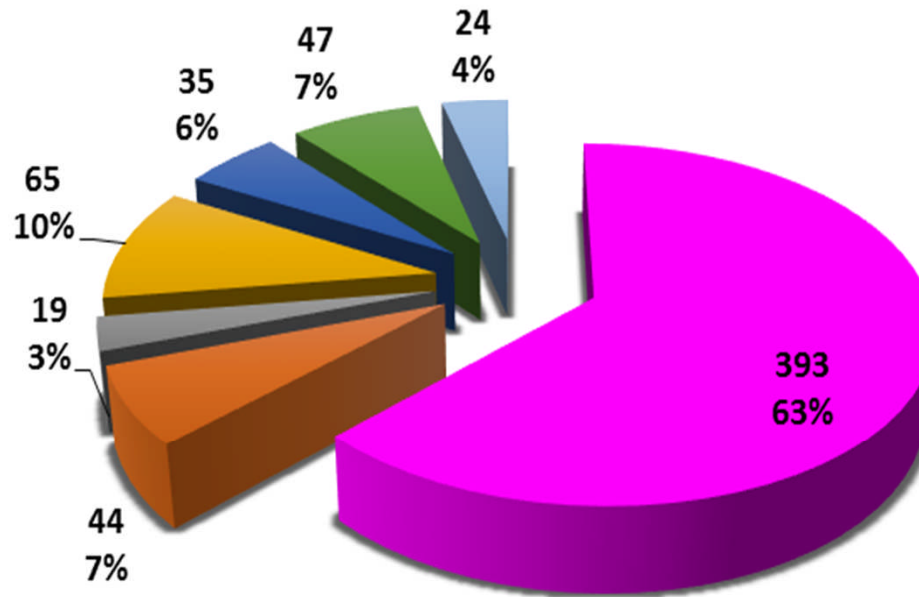


# Results

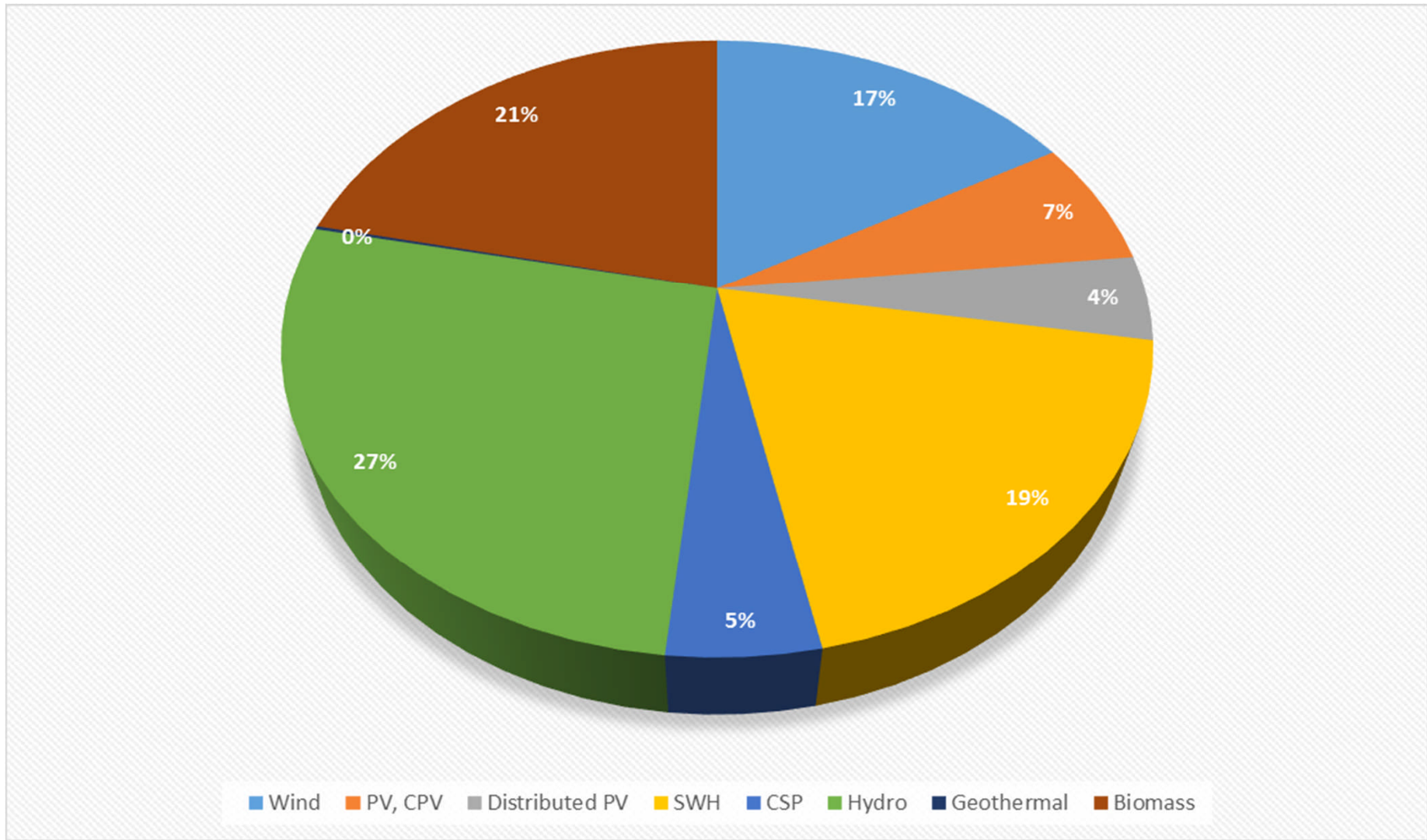


## Number of Projects by Technology

■ PV 
 ■ SWH 
 ■ Biomass Boiler 
 ■ LED 
 ■ Building Envelope 
 ■ Other 
 ■ Green Certified Buildings



# NREAP: 12% by 2020 (1.7 Billion USD)



# RE Technologies

Year	2020		
	MW	GWh	ktoe
Wind	200	595.7	128.7
PV, CPV	150	240.0	51.8
Distributed PV	100	160.0	34.6
CSP	50	170.6	36.8
SWH	1,053,988 m <sup>2</sup>	685.5	148.1
Total Hydro	331.5	961.9	207.8
Geothermal	1.3	6.0	1.3
Bioenergy	--	771.5	166.6
Total RE		3,591.2	775.7
Total Primary Energy Demand		29,578.7	6,389.0
Target		12.1	

# The Lebanese Environmental Action (LEA)

For Water, Air, and  
the Environment





# What is LEA?

LEA is a national financing mechanism by the Central Bank of Lebanon with the technical assistance of LCEC.

LEA allows private sector entities to apply for subsidized loans for any type of environmental conservation measure related:

Water

Air Quality

Resource  
Conservation

Environment

# What are the Environmental projects covered by LEA?

- Organic Farming



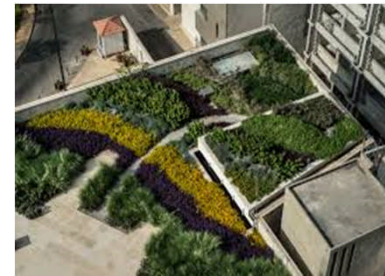
- Landscape



- Ecotourism



- Green Roofs



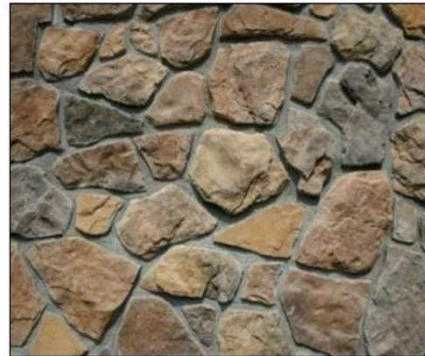
- Green Walls





# What are the Environmental projects covered by LEA?

- Stones cladding



- Roof Tiling



- Recycling and Solid Waste Treatment



# Eligible Measures for Water Conservation



Rainwater  
Harvesting



Efficient  
Irrigation



WWTP



Sustainable Landscaping



Sustainable Agriculture Practices



Sustainable Water Fixture

# LEA: Requirements by Measure

## Landscaping

- Native Plants
- Low water requirements/ Drought Resistant Plants

## Efficient Irrigation

- Drip standard, drip pressure compensating, fixed spray, micro spray, rotor
- Achieve 30% water savings from BAU

## WWTP

- Effluent water quality suitable for other purposes reuse

# LEA: Requirements by Measure

## Rainwater Harvesting

- Harvested water quality suitable for further uses

## Sustainable Agriculture

- Example: Soilless Irrigation (Hydroponics/Aquaponics)

## Efficient Water Fixture

- Reduce Indoor Water Consumption by 30% compared to BAU

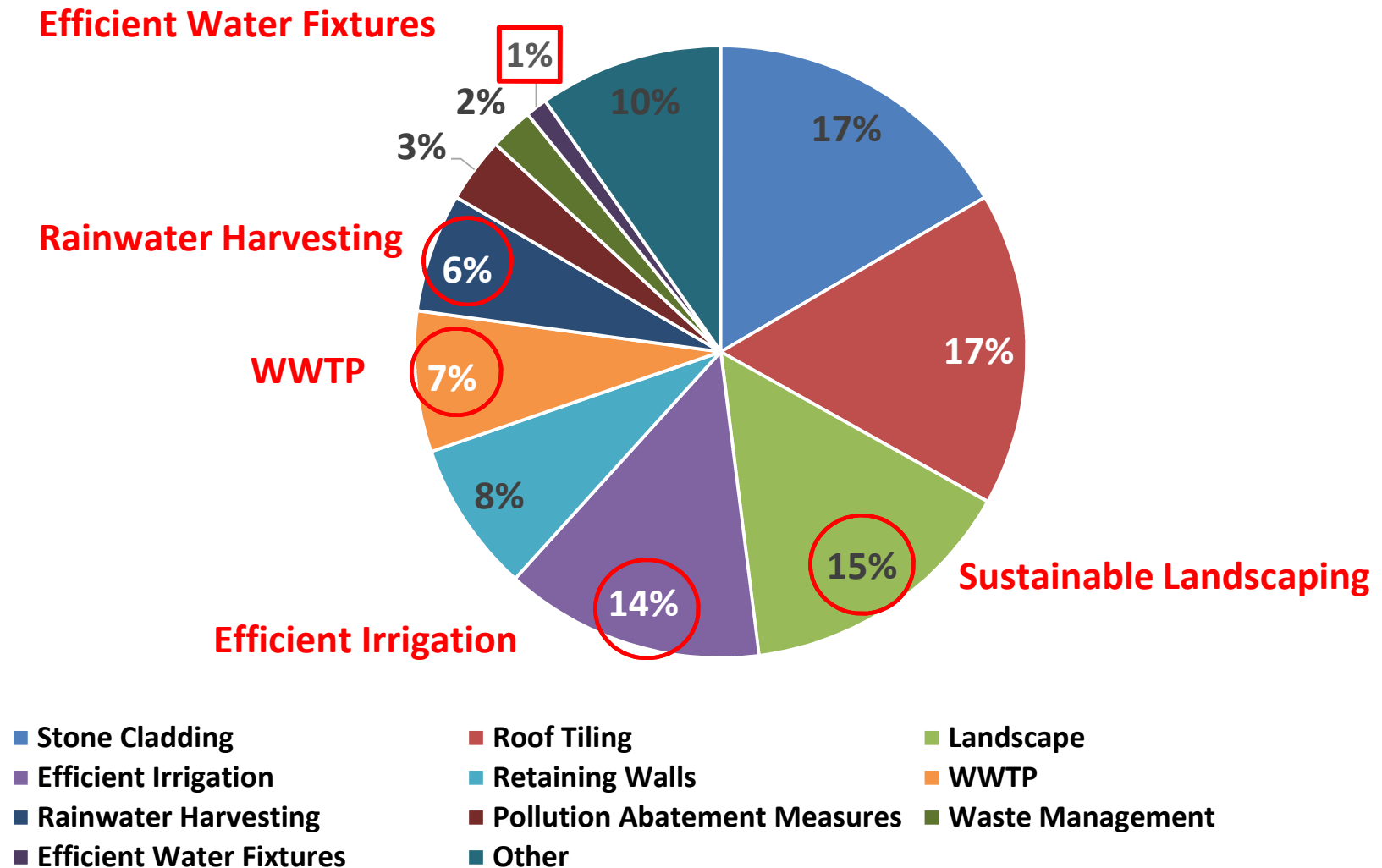
# LEA Results, March 2017

- More than 75 projects among, among which 80% are approved and 15% are under review.
- Total granted Loan amount of USD45 Million USD.
- 43% of projects are water related projects costing USD12 Million.
- Economic Sectors:
  - Residential
  - Commercial
  - Industrial



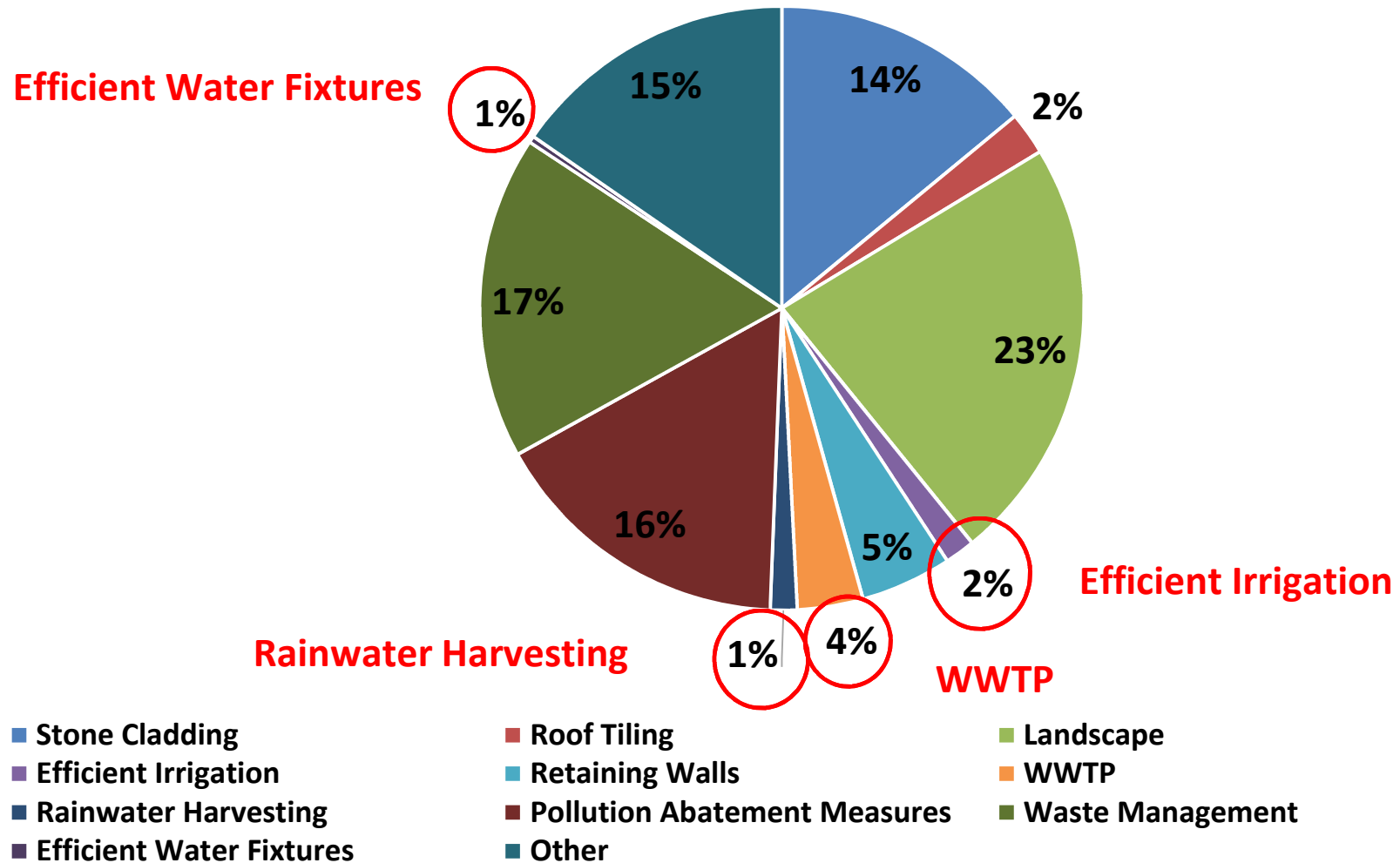
# LEA Results, March 2017

## Project Distribution per Measure



# LEA Results, March 2017

## Granted Loan by Measure





# BDL Green Incentives

Financing Scheme	Cost on Beneficiary	Multiplier
<b>EIB/AFD Energy</b>	0% - 0.75%	150%
<b>Energy Loans</b>	3.75%- (50%*1Yr. Tbs )	150%
<b>Kafalat Energy</b>	3.5%	100%
<b>Solar Panels Loans</b>	0.75%	150%
<b>Solar Energy – Rural Areas</b>	0.75%	150%
<b>Pollution Abatement - Industry</b>	2 Yr. Tbs – 1% LIBOR 3mths. + 4.5%	60%
<b>World Bank – Pollution Abatement</b>	WB rate + BDL Comm + 3.5% Bank Spread - (100%*1Yr. Tbs)	100%
<b>Non Subsidized – Environmental Loans</b>	3.75%- (50%*1Yr. Tbs )	100%
<b>Environmental Subsidized Loans</b>	2 Yr. Tbs – 0.75%	60%

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# Thank You

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Banque Du Liban

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