



# CLIMATE CHANGE AND ENERGY



1 Power utility: Electricité du Liban • 7 Thermal power plants: 3 operate on Heavy Fuel Oil, 4 on Gas Diesel Oil • 96% of electricity generated through thermal power plants in 2015  
 • 4% of electricity generated through hydropower in 2015 – 282 MW of installed capacity hydropower – 480 GWh produced in 2015 from hydropower • 220 MW capacity from three wind farms, PPA signed in 2018, generation to start by 2021

In 2015, 12,237 GWh supply  $\leftarrow$  20,368 GWh demand  $\gggg$  8,131 GWh gap between supply and demand

AT A GLANCE



### Key legislation

- Law 462/2002 Organization of the Electricity Sector
- Law 132/2010 Offshore Petroleum Resources Law
- Law 288/2014 License Independent Power Producers
- Banque Du Liban Circular No. 236 of 2010 to set the conditions of requests for green loans under NEEREA
- Policy Paper for the electricity sector 2010 - updated in 2019



### Gender analysis

As primary household-energy managers, women have a critical role to play in the success of implementation of any energy related policy. They should be therefore targeted as a group in awareness and education campaigns. Furthermore, energy and related technologies can play a key role in integrating women into the economy by involving them in new type of activities and helping them acquire new skills.



### SDG linkages

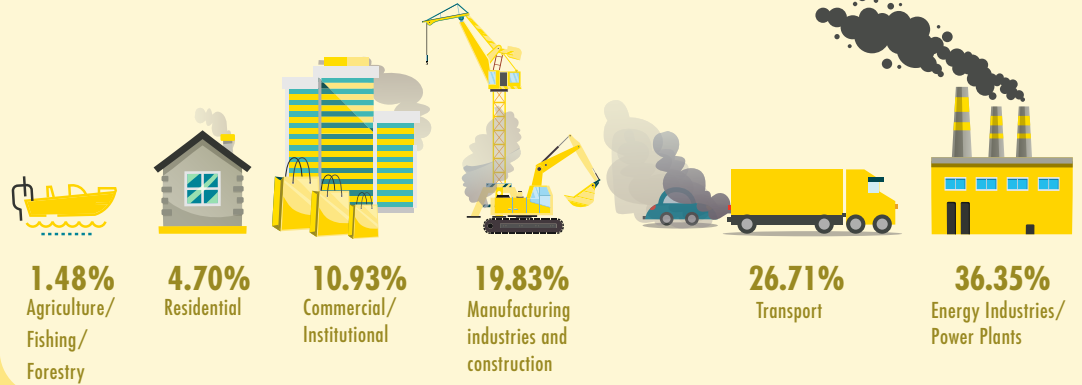
**SDG 7: Affordable and Clean Energy**  
 Investments in renewables:  
 - generate modern and sustainable energy services  
 - increase energy security in countries that rely on imports for energy supply

GHG EMISSIONS

In 2015,  
 23,012 Gg CO<sub>2</sub>eq. from Energy  
 = 85% of national emission



### EMISSION SOURCES FROM ENERGY SECTOR IN 2015



EMISSION REDUCTION

### NEEREA

The National Energy Efficiency and Renewable Energy Action (NEEREA) is a national financing mechanism initiated in 2010 by the Central Bank of Lebanon. It provides the private sector with long-term loans at low interest rates for any type of renewable energy or energy efficiency project.

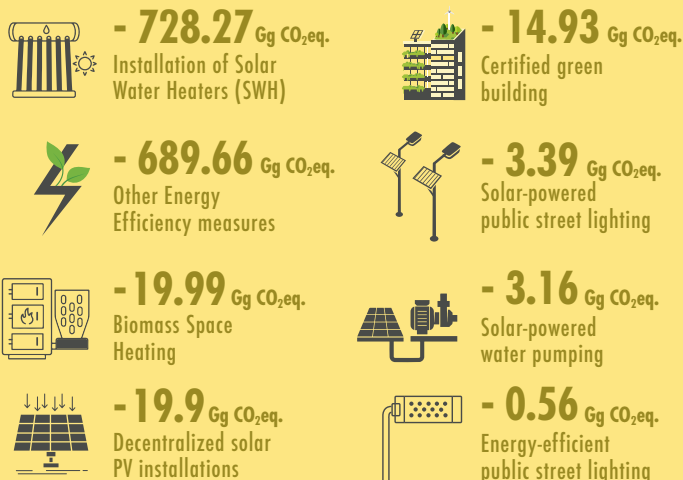
### LEEREFF

The Lebanon Energy Efficiency and Renewable Energy Finance Facility (LEEREFF), launched in 2018, complements NEEREA. LEEREFF aims at contributing not only to energy savings and supply security of businesses but also at supporting energy conservation, carbon emission reduction and climate change mitigation.

### DERISKING Renewable Energy

The renewable energy sector can promote private sector investment in large-scale wind energy and solar PV in Lebanon to achieve more significant emission reductions and accelerate the implementation of the NDC targets. Making renewable energy investments cost-competitive will contribute positively to Lebanon's power sector, increasing the reliability of the supply, decreasing the country's dependence on fuel imports, improving the affordability of the energy mix, and reducing the need for subsidies to EDL.

GHG REDUCTION ACHIEVEMENT BY 2015



### SUPPORT RECEIVED TO CLIMATE CHANGE

PV Electricity  
**\$9,617,797**

Hydropower small scale  
**\$4,627,000**

PV PSI  
**\$2,922,101**

Biomass boilers  
**\$909,774**

Others  
**\$751,000**