



**Arab Republic of Egypt**  
**Ministry of Electricity & Renewable Energy**  
**New & Renewable Energy Authority (NREA)**

# Egyptian's PV Solar Energy





# Electricity Sector in Egypt

**MINISTRY OF ELECTRICITY & ENERGY**

**Egyptian Electricity  
Holding Company**

**Nuclear Materials  
Authority**

**Hydro Power  
Projects Execution  
Authority**

**Atomic Energy  
Authority**

**Nuclear Power  
Plants Authority**

**New & Renewable  
Energy Authority**



# Establishing NREA (1986)



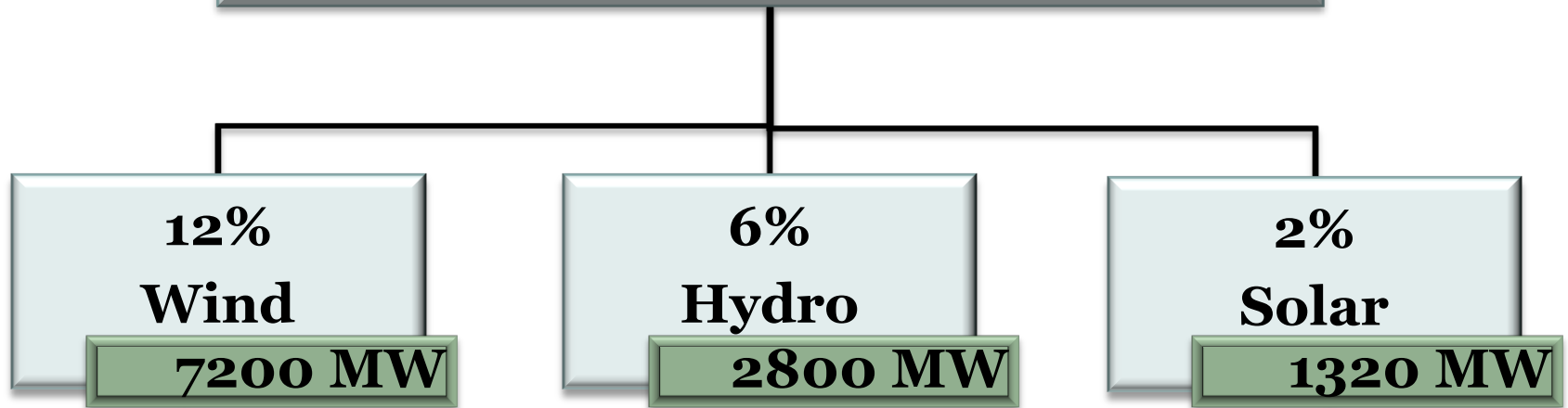
**The national focal point to develop and introduce renewable energy technologies to Egypt on a commercial scale together with implementation of related energy conservation programs**



# National Strategy up to 2020

In February 2008, the Supreme Council of Energy approved an ambitious plan to:

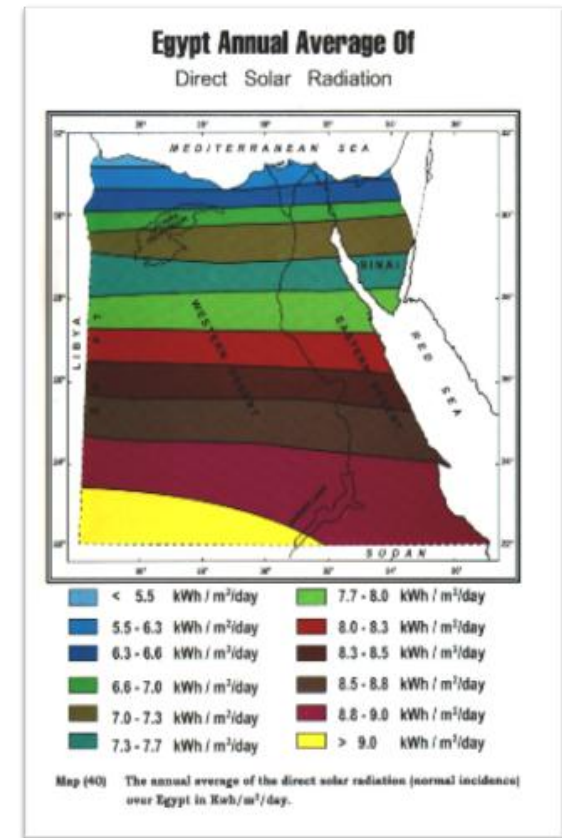
**Satisfy 20% of the generated electricity  
by renewable energies by 2020**



# Renewable Energy Current Status

## Resource Assessments (Solar Atlas)

The Solar Atlas was issued, and indicated that Egypt is endowed with high intensity of direct solar radiation ranging between 2000 – 3200 kwh/m<sup>2</sup>/year from North to South. The sun shine duration ranges between 9-11 h/day from North to South, with very few cloudy days.





# **PV Development Policy**

## **Egyptian Solar Plan**

**in July 2012 an Egyptian Solar Plan has been approved by the Cabinet which targeting to install about 3500 MW by 2027 (2800 MW CSP + 700 MW PV).**

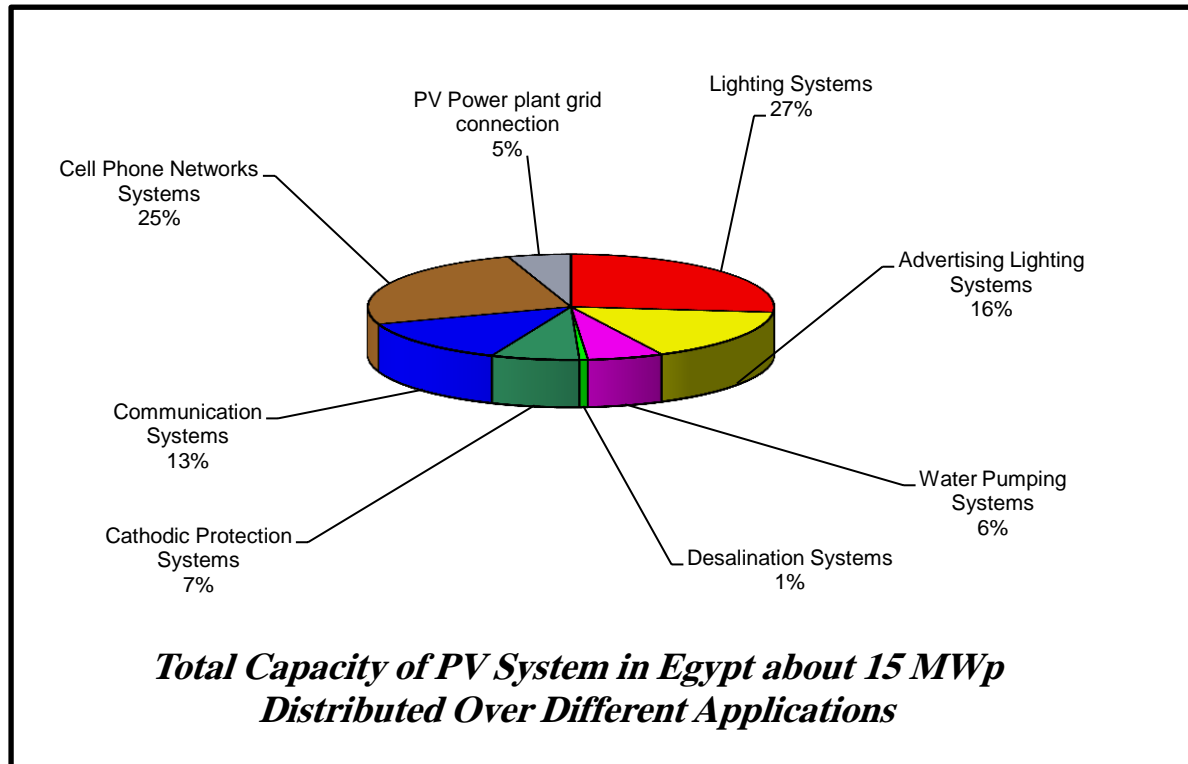
## **Photovoltaic Rooftop Systems**

**In December 2013 the Cabinet has declared a resolution to install 1000 Photovoltaic Rooftop systems, PVRS, on Governmental buildings.**



# PV Current Status

**Total installed capacities is around 15 MW, most of these systems are stand – alone to power different applications.**





# **PV Ongoing Project**

- **20 MWp Photovoltaic Power Plant Project in HURGHADA in cooperation with JICA.**
- **20 MWp Photovoltaic Power Plant Project in KOM OMBO in cooperation with AFD.**
- **Electrifying Remote village at Siwa Center – Matrouh Governorate using PV systems with total capacity of 8.8 kWp in cooperation with India Government.**
- **10 x 20 MW (BOO) Photovoltaic Power Plant Project in KOM OMBO, 15 developers are shortlisted, it is planned to operate these projects in 2016/2017.**





# **PV Ongoing Project**

- **In cooperation with United Arab Emirate (UAE):-**
  - **Electrifying 211 remote villages in different governorates in Egypt by stand – alone PV systems,**
  - **Electrifying 33 remote villages in different governorates in Egypt by small PV power plants, each with the capacity 120 KWp,**
  - **Electrifying 20 remote cities in different governorates in Egypt by large PV power plants, each with total capacity 37 MWp,**



# **Barriers, Challenges and Expected on PV envelopment**

- **Securing the required huge finance for RE projects by the public and private sector.**
- **Securing the sufficient financial resources for RE Fund.**
- **The average cost of kwh generated from RE projects still higher than the same kwh from conventional power plants due to Low Energy Tariff .**
- **Technical risks on the grid stability due to implement RE projects.**



# *Thank You*

