

WIND TURBINES in CRETE



Wind power generation is quite unpredictable. For this reason, it is necessary to examine the wind potential from the wind potential mapping maps or even better to make wind speed measurements for at least a period of 6 months. The main parameter that determines the efficiency of the system is the average wind speed and its distribution on which depends the electricity that will be produced by the system per installed kW on an annual basis.

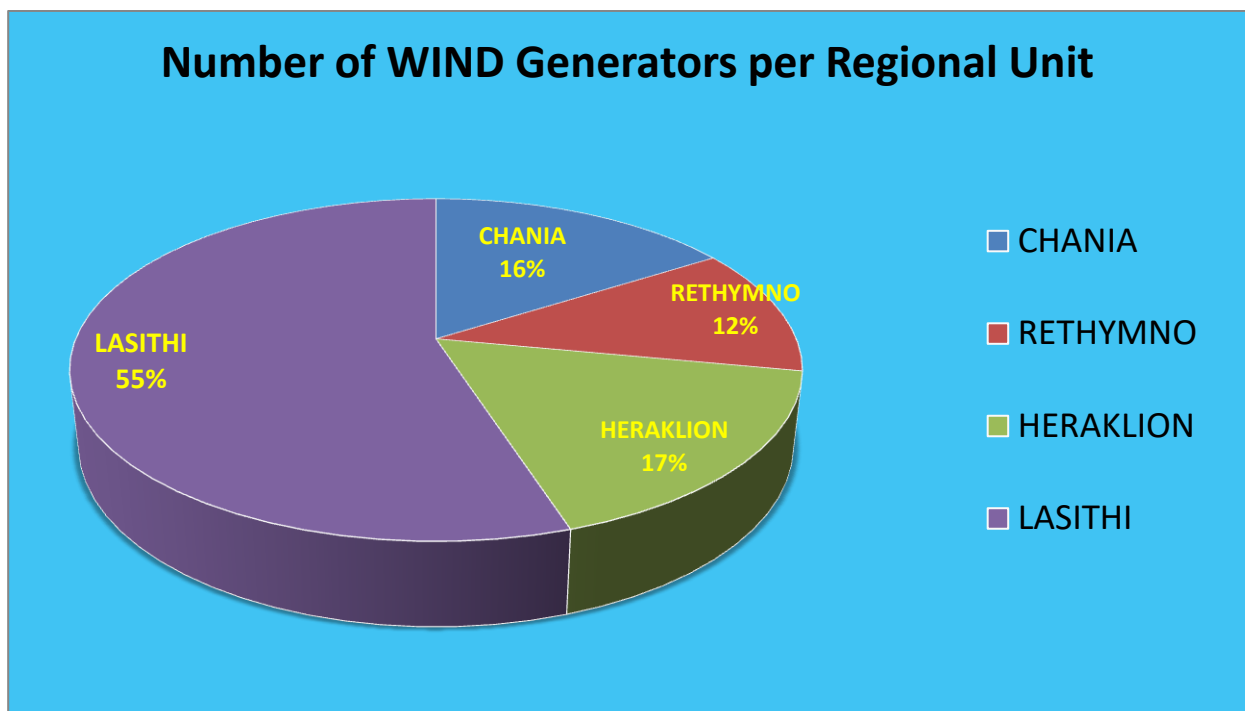
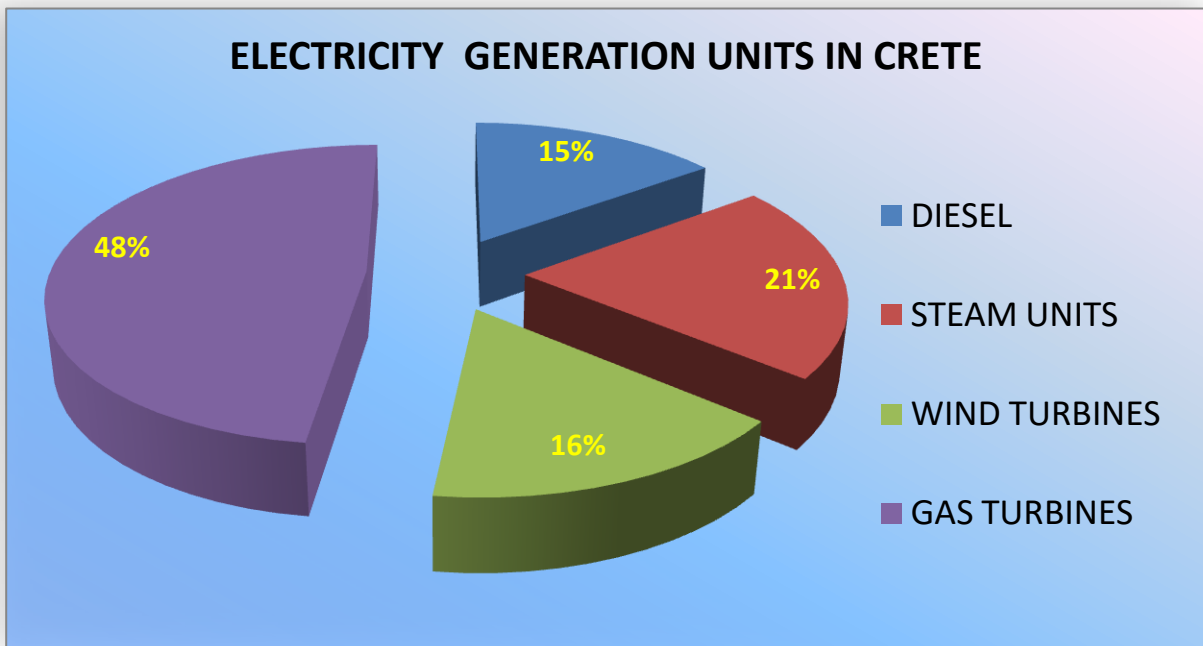
For example, a 50kW wind turbine can generate at a site with an average wind speed of 8m / s, 220,000kWh per year, an amount of energy capable of meeting the energy consumed by more than 50 households. The generated wind energy is channeled to the grid at a price set by law. From 2006 the sale price of the wind kilowatt hour (kWh) is set at € 0.25 for Greece.

Based on the above figures, the annual turnover exceeds € 50,000, a size which repays the invested capital in about 4 years.

Crete due to its geographical location and its geological and climatic characteristics is recognized as a really wanted area for the development of wind energy systems. Many companies have expressed interest in installing colossal wind farms with 1,200 - 1,700 wind turbines whose total power will exceed 3000 MW. More than 70 places have been located focusing on the ridges of the mountains of Crete. 28 have already been built and are operational.

Floating offshore wind farms are very difficult to plan due to the great depth of the sea at a distance of 1,500 meters from the shores and the costly transfer of energy.





Web Map in Operation of Wind farms:

- <https://eletaen.maps.arcgis.com/apps/webappviewer/index.html?id=875b7ea838cf4fe6a937c4be90fa8edd&extent=2070592.4486%2C4027438.181%2C3489263.6936%2C5196618.9657%2C102100>
- <https://geoportal.apdkritis.gov.gr/gis/apps/webappviewer/index.html?id=892d3049dcb042eb9647714a1b825aad>

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