



Zewail City of Science and Technology - ZC - (Egypt)

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CASE STUDY 1

TITLE

Wind energy potential at Egypt (El Zafarana Power Plant): Case Study

OBJECT

- *Increase the rate of wind energy growth at Egypt.*
- *Decrease the cost of energy that depends on fossil fuels in remote areas.*
- *Reduce CO2 emissions when compared with electricity generated from fossil fuels.*

REASON WHY YOU CHOSE IT/ YOU CONSIDERED IT RELEVANT FOR THE PURPOSE OF ENEPLAN

- *Egypt has chosen wind power as a renewable and clean source of energy in El Zafarana because after successful experimental demonstrations for wind power harvesting in Ras Ghareb, and Hurghada. The government had an ambitious plan for commercialization of wind power production in Zafarana site (190 km south east of Cairo) where the wind speed reached 9.1 m/s according to Wind Atlas for the Gulf of Suez (1991-95).*
- *The most important reason to select El Zafarana wind power plant as a case study is that it is the first power plant in Egypt that depends on a renewable energy source. Our target in the ENEPLAN project is to focus on successful projects in the energy sector that contribute to sustainability*

CASE STUDY 2

TITLE

Energy Crisis in Egyptian Cement Sector: Problem and Solutions

OBJECT

- *Decrease the dependence on fossil fuels in cement industry.*
- *Economical energy generation.*
- *Waste Management.*

REASON WHY YOU CHOSE IT/ YOU CONSIDERED IT RELEVANT FOR THE PURPOSE OF ENEPLAN

- *The present case study focuses on an urgent issue; the shortage of fossil fuel supply in general and particularly in the cement industry. Not only does it introduce the problem but also it suggests available, simple and economical solutions for this problem.*
- *Using wastes such as Municipal Solid Waste, Rejected Drive Fuel, etc... to add an environmental value through the management of such wastes.*