

WINDPOWER PROFITABILITY SIMULATOR

OBJECTIVES:

- Wind power profits
- Wind turbines to be installed
- Wind power cost analysis

VARIABLES:

- Energy consumption
- Energy fares
- Environmental Conditions

Rounding for so many renewable energy new forms, the emerging questions are: How green are these new forms of energy generation? Are they really improvement the human's energy demands? For how long are we going to be capable to manage them?

Description of the problem to be solved

By Luis Miguel Gonzalez

Since renewable energy project has become in one of the best emerging business likely, we should take one second to think what is the real profitability of these investments? No mention social and environmental impact.

This development aims to analyze some of the most important variables to take on account every time that we are facing a wind energy

investment project. This is achieved by running software simulator which helps to the project manager to take a view ahead of this.

Before we start to develop the software a **mathematical-statistical model and constraints must be settled**, the model will included information such as: energy demand (MW), energy fares, government discounts, wind speed range,

energy efficiency percentage, most of the environmental conditions, and so on.

Once the software tool is performed, the user should have information like: profitability, data to analyze different scenarios, wind turbines to be installed, among other that may be required.