Introduction

Wind Energy In Mauritius

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Content

-History :St Brandon, Anse Quitor, Cane Paul, Grand Bassin, Citronelle

-Data

-Wind power potential

- Solar power potential

First Evaluation

- Study general climatic conditions
- Prevailing Winds (obtained from Meteorological records) e.g:

-SE Trades during winter months

-Weaker winds during Summer

- Topography

Important Factors

- Land cover (to determine roughness of terrain)
- Road Network
- Proximity of grids
- Availability of space
- Proximity of buildings
- Government Regulations (fauna etc)

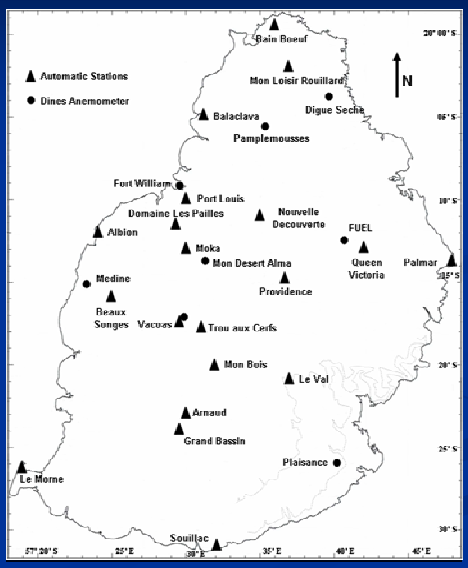
Preliminary Selections of Sites

- Over 50 sites based on topography and meteorological data selected
- Spot measurements conducted
- Conventional instruments (at 10-m height)
- Analytical, such as topography and inclination of trees
- Hill tops and valleys
- Specific formula allow for approximation of wind speed with height

Preliminary Selections of Sites

- Crude measurement using spot wind and correlation with long standing stations (this allowed elimination of less windy sites)
- Other sites eliminated using site and grid accessibility criteria
- Instrumentation in remaining 11 sites for systematic monitoring

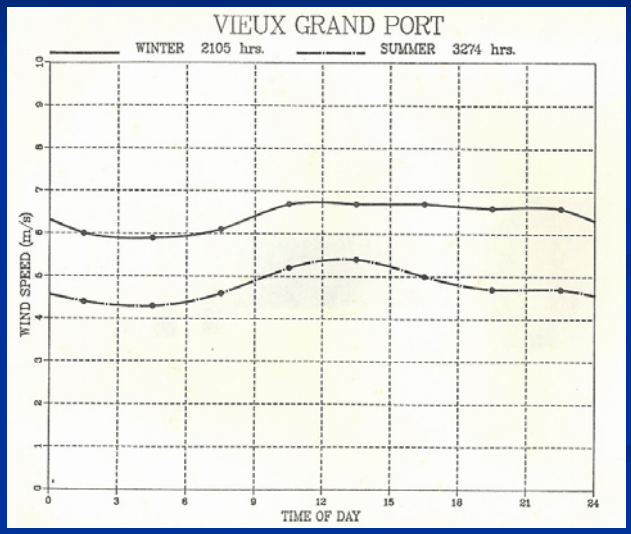
Instrumental Coverage



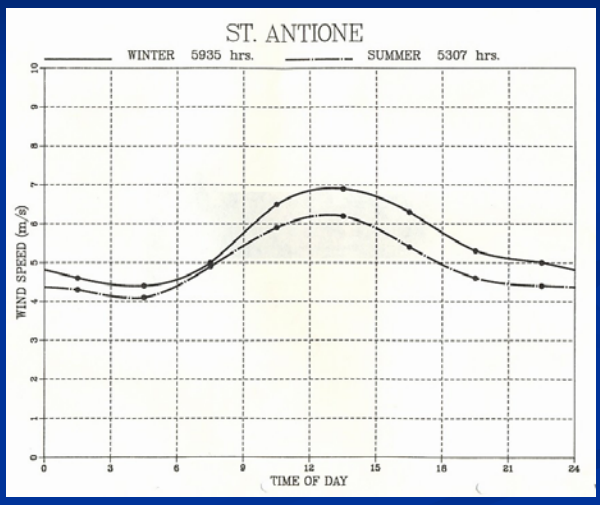
Research Programme of 1983-86 Objectives

- Systematic wind power potential evaluation
- Typical grid-connected electricity generation
- Training

Results of monitoring



Results of Monitoring



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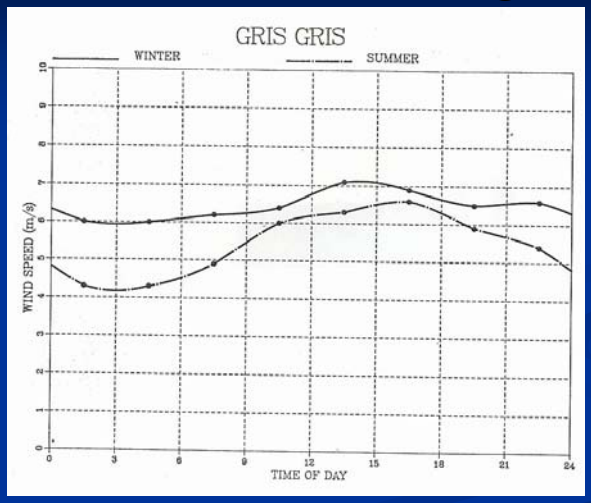

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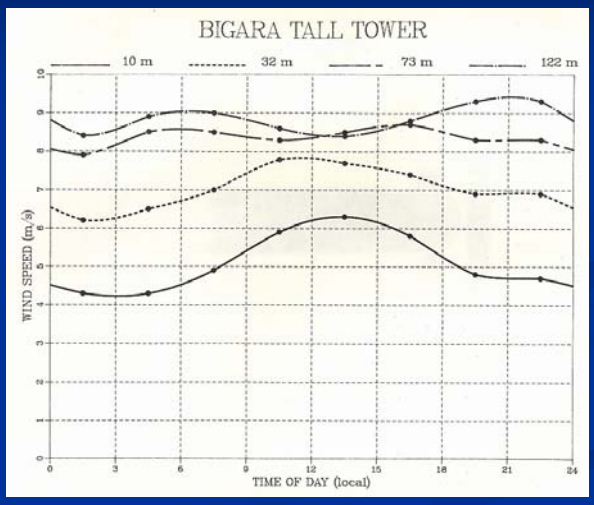
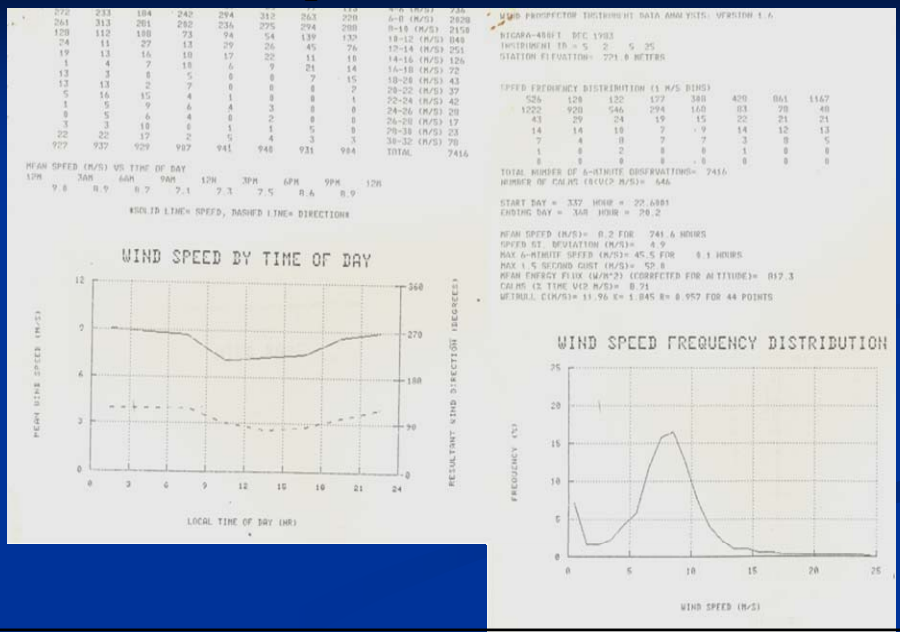
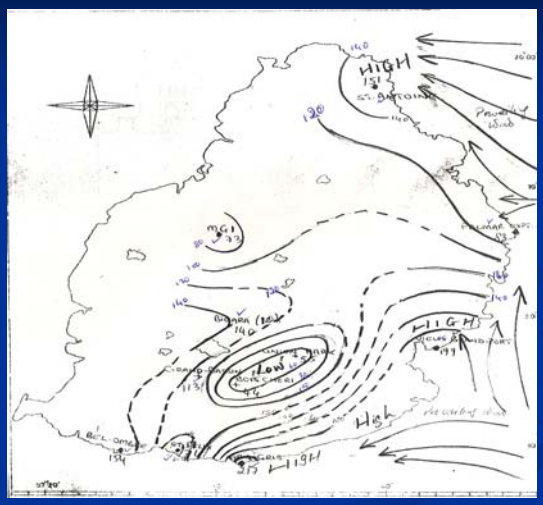


Example of Result Sheet



Potential Over Mauritius

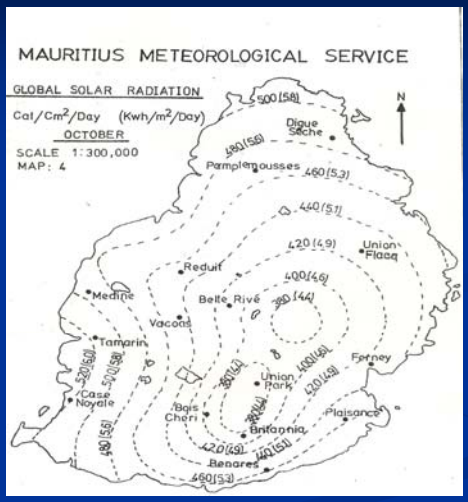


Barriers

Assume: Wind Power Potential Exists

1) Exorbitant investment cost
2) Lack of technical know-how
3) Lack of maintenance facilities
4) Absence of necessary infrastructures

- Solar Data



Applications

Roof of German Parliament. Solar Energy provide for air conditioning

Applications

The Future

- Integrated Planning with serious options
- Place a target on production
- Legislate (e.g Israel with solar water heaters)
- Special Unit for renewable energy applications else conflict of interest
- Most important: **Paradigm Shift**

Small example: who is attending to our solar lamps?

Thank You