EXPERT GROUP STUDY
ON

RECOMMENDED PRACTICES FOR WIND TURBINE TESTING AND EVALUATION

5. ELECTROMAGNETIC INTERFERENCE

PREPARATORY INFORMATION

Submitted to the Executive Committee
of the International Energy Agency Programme
for
Research and Development
on Wind Energy Conversion Systems

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5. ELECTROMAGNETIC INTERFERENCE

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FOREWORD

The evaluation of wind turbines must encompass all aspects of a Wind Energy Conversion System (WECS) ranging from: energy production, quality of power, reliability, durability and safety, through to cost effectiveness or economics, noise characteristics, impact on the environment and electromagnetic interference. The development of international agreed upon evaluation procedures for each of these areas is needed now to aid in the development of the industry while strengthening confidence and preventing chaos in the market.

It is the purpose of the proposed recommendations for wind turbine testing to address the development of internationally agreed upon test procedures which deal with each of the above noted aspects for characterizing wind turbines. The IEA expert committee will pursue this effort by periodically holding meetings of experts, to define and refine consensus evaluation procedures in each of the areas:

1) Power Performance
2) Cost of Energy from WECS
3) Fatigue Evaluation
4) Acoustics
5) Electromagnetic Interference
6) Safety and Reliability
7) Quality of Power

For items, 1, 2, 3, 4 and 7 documents have been issued during the years 1982–1984. However items 5 and 6 have turned out to be difficult to treat within the same framework as items 1–4 and 7. The present paper which addresses item 5 therefore is presented as *preparatory information* on the subject of Electromagnetic Interference.

In spite of this limited scope it is felt that the information contained in this paper can be of great value to planning authorities and to manufacturers and users of wind turbines and therefore justifies the presentation of the document in this series of Recommended Practices.