

Preface

The protection of environment and the optimization of energy efficiency acquire continuously bigger importance. In today's power scenario, we are facing a major power crunch. Day by day, the gap between demand and supply of electric energy is widening.

The aim of this handbook is to turn the attention to these subjects and to investigate the existing situation with regard to the environmental questions and more special the energy efficiency in the European Industry and especially the industrial units at the Greek area.

The reduction of consumption energy it is essential to be considered not only as a manner for the protection of environment via the reduction par example of gases emissions from greenhouse but also as a question that concerns the management of enterprise.

Consequently, in the frames of innovator approach, the reduction of consumption of energy can be achieved combining the projection of the hidden use of energy and the benefit of know-how for her reduction with the growth of required structures management.

Moreover, this book will develop the use of photovoltaic systems in the industry, focused in basic sizes (economically, technically, administratively) as well as a model of energy management as a proposal for that with regard to the energy questions can constitute part of management of enterprise.

The structure of this text allows flexibility in course content and design. It may be used equally well either a semester from students or also from engineers who want to introduce themselves to energy management and photovoltaic operation. Coverage of preliminary energy management system and photovoltaic operations topics is basic enough for the fundamental photovoltaic course; yet, it is broad and analytical enough to also be used in an advanced semester course that gives an in-depth treatment of specific topics. Furthermore, this text may be used at either the undergraduate or graduate level.

To aid the presentation of its subject matter, this text includes the followings features:

Figures, diagrams and charts to further explain and illustrate the concepts and techniques presented.

Questions at the end of the chapters to provide summaries and reviews of key points. For the most part, these require qualitative answers and may be used to alert the respondent to central areas which need closer examination.

Design and calculation of an operation of installation of roof mounted photovoltaic system.

Glossary with all the terms at photovoltaic technology.

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