Photovoltaics for Sustainable Electricity and Buildings

Ali Sayigh Editor

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Preface

In light of the role played by fossil fuels in global warming and climate change and the increasing demand for energy, renewable industries must address the need for sustainable electricity and buildings, especially within the field of photovoltaics. Presently, investment in renewable energy is double that of the investment in coal and gas according to UN sources. With this in mind, this volume brings together a number of distinguished authors to make the case for photovoltaics as one of the most effective electricity generators among all the renewable energy producers.

The book is aimed at national and regional policy makers as well as environmentalists. It will be of interest to electricity producers, researchers, building technologists, and postgraduate students in science and engineering. Photovoltaic developers and manufacturers will find this book gives them a view of the industry as it stands at the present time and where its future lies.

It is hoped that this book will encourage the building and construction industries to adopt the concept of photovoltaic cells and panels as a building material which contributes not only to a building's fabric but also to its source of electricity supply.

The book is structured to take the reader from the recent history of photovoltaics development through to modern concepts and applications.

Brighton, UK Ali Sayigh

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About the Editor

Ali Sayigh is Chairman and Founder of the World Renewable Energy Congress and Council, Director General of World Renewable Energy Network (WREN), Chairman and Founder of the Arab Solar Energy Society, and Past Chairman of the UK Solar Energy Society. Dr. Sayigh was recently elected to chair the Iraqi Energy Institute, and he actively consults on renewable and sustainable energy issues for a number of international organizations, including UNESCO, ISESCO, UNDP, ESCWA, and UNIDO. Dr. Savigh was Director of Solar Seminars at ICTP Trieste, Italy, from 1977 to 1995; Professor of Solar Energy at King Saud, Kuwait, and Reading Universities from 1969 to 1994; and Professor of Engineering at the University of Hertfordshire from 1994 to 2004. He was the founding expert in Renewable Energy at AOPEC. He is a Fellow of the Institute of Energy, a Fellow of the Institution of Electrical Engineers, and a Chartered Engineer. He has published more than 400 papers and has contributed to and edited more than 30 books. He has been Editor and Editor-in-Chief of several international journals including Renewable Energy and the International Journal of Environmental Sciences and Technology and Editor-in-Chief of the Major Reference Work, Comprehensive Renewable Energy.