Preface

Growing environmental consciousness, widely reported 'doomsday' predictions by acknowledged experts, geopolitical concerns relating to uninterrupted supplies of fossil fuels and uncertainties associated with fuel prices, stimulus packages and incentive schemes announced by several governments have all led to the rapid and strong growth of the Renewable Energy (RE) industry. Policy makers expect to trigger in its wake, a virtuous cycle of enlarged production, scale economies, lower prices, and even more rapid market growth. Some forms of renewable energy are now grid-competitive in certain market conditions. While experts believe that several new and 'natural' markets could sustain even higher rates of renewable energy penetration, growth has seldom lived up to expectations, targets have frequently been missed and numerous market related barriers remain.

Yet there is little economic analysis of renewable energy relative to other industries of similar scope and stature. The main renewable energy resources face a problem because of their intermittency (the wind does not always blow nor does the sun shine all the time) and this has not always been factored into estimation of their potential. Few researchers have actually applied the fundamentals of economic theory to furthering the cause of Renewable Energy (interchangeably used with such other terms as "sustainable energy", "clean energy" etc.) with a view to helping it grow into a self-sustaining industry sector. Several policy makers and consultants, for instance, have implicitly assumed in the past that consumers would pay higher prices for energy from solar PV or wind farms almost exclusively based on their stated preferences. Likewise, biofuels viz., ethanol and bio-diesel are assumed to gross higher unit prices than their petroleum derived counterparts exclusively basing on their superior environmental credentials. Over time, the dependence on grants and subsidies has only been enhanced and this supposedly 'sunrise' industry has remained in the shadows.

This book is an attempt to blend classical economic theory with the realities of the RE industry and to identify incentive structures contributing to the success or otherwise of project implementation involving renewable sources and appropriate technologies. It is an attempt to shoot straight at the underlying issues that encourage or plague widespread dissemination of RE technologies. The chapters

carry meticulously researched articles published by reputed international peer-reviewed journals, with their respective list of references, foot notes and end notes pointing towards sources of additional data, offering clarifications and illustrations or listing exceptions. In many instances, data from India, a setting which provides an excellent backdrop to study various issues involved, are used to illustrate and to drive the arguments.

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