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Nota di contenuto	Chapter1: Introduction to Isolated Energy Systems -- Chapter2: Wind Energy Systems -- Chapter3: Modelling of Isolated Systems -- Chapter4: Design and optimization of wind-battery systems -- Chapter5: Probabilistic modelling and optimization -- Chapter6: Non-convexity in the Design Space of Wind-battery Systems -- Chapter7: Multiple Wind Generator Systems -- Chapter8: Design and optimization of wind-PV-battery hybrid -- Chapter9: Conclusions.
Sommario/riassunto	This book offers methods to improve energy access and support social and economic development through the appropriate and reliable design of isolated wind energy systems. The findings reported on wind based isolated power generation show that the proper match of turbine diameter and generator rating is vital, and is governed by the site wind resource and the load profile to be served. The methodology for sizing and selecting appropriate system parameters, taking into account the resource uncertainty, is demonstrated throughout the chapters of this monograph. Readers will discover information on the methodologies

for modelling, design and optimization of the systems in terms of safety, functionality, longevity, and practicality. Details are provided on the design space of wind-battery systems, multiple wind generator systems, and wind-PV-battery hybrids to cover all the bases of isolated wind energy systems. This monograph aims to serve as a guide to system developers, manufacturers, and financing institutions on the design aspects of isolated wind energy systems. .

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