1. Record Nr. UNINA9910827184603321

Autore	Lynn Paul A
Titolo	Electricity from wave and tide : an introduction to marine energy / / Paul A. Lynn
Pubbl/distr/stampa	Chichester, West Sussex, United Kingdom : , : John Wiley & Sons Inc., , 2014
ISBN	1-118-70166-6 1-118-70167-4 1-118-70183-6
Edizione	[1st ed.]
Descrizione fisica	1 online resource (266 p.)
Classificazione	TEC031000
Disciplina	621.31/2134
Soggetti	Tidal power-plants Ocean wave power Tidal power
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Title Page -- Copyright -- Preface -- Acknowledgements -- Chapter 1: Introduction -- 1.1 Marine energy and Planet Earth -- 1.2 Marine resources -- 1.3 A piece of history -- 1.4 Power, energy and performance -- 1.5 Into the future -- References -- Chapter 2: Capturing marine energy -- 2.1 Ocean waves -- 2.2 Wave energy conversion -- 2.3 Tidal streams -- 2.4 Tidal stream energy conversion -- 2.5 Research and development -- References -- Chapter 3: Generating electricity -- 3.1 Introductory -- 3.2 Power take-off -- 3.3 AC electricity -- 3.4 Generators -- 3.5 Connecting to the grid -- 3.6 Large-scale renewable energy -- References -- Chapter 4: Case studies: Wave energy converters -- 4.1 Introductory -- 4.2 Case studies -- References -- Chapter 5: Case studies: Tidal stream energy converters -- 5.1 Introductory -- 5.2 Case studies -- References -- Index.
Sommario/riassunto	"A concise yet technically authoritative overview of modern marine energy devices with the goal of sustainable electricity generation With 165 full-colour illustrations and photographs of devices at an advanced stage, the book provides inspiring case studies of today's most

promising marine energy devices and developments, including full-scale grid-connected prototypes tested in sea conditions. It also covers the European Marine Energy Centre (EMEC) in Orkney, Scotland, where many of the devices are assessed.Topics discussed: global resources - drawing energy from the World's waves and tides history of wave and tidal stream systems theoretical background to modern developments conversion of marine energy into grid electricity modern wave energy converters and tidal stream energy converters This book is aimed at a wide readership including professionals, policy makers and employees in the energy sector needing an introduction to marine energy. Its descriptive style and technical level will also appeal to students of renewable energy, and the growing number of people who wish to understand how marine devices can contribute to carbon-free electricity generation in the 21st century"--