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Nota di contenuto	Part I: General Considerations -- 1. Introduction -- 2. Current Status of Global Energy Consumption, Production and Storage -- 3. Climate Tipping Points and Climate Irreversibility -- 4. Review of Past Energy Transitions -- 5. Lessons from Past Major Engineering Initiatives -- 6 Recent Analyses and Current Proposals for Sustainable Global Power Production -- 7. Problem Definition -- 8. The Energy-Ship/ Wind-over-Water Concept -- 9. Major Elements and Developmental Status of the Energy Ship Concept -- 10. Comparison of the Wind-over-Water with the Wind-Water-Solar Concept -- 11. Sustainable Aviation -- 12. Proposal for a Global Renewable Energy Production and Storage Initiative -- 13. Summary and Outlook -- Part II: Technical Aspects -- 14. Energy and Power Fundamentals -- 15. Hydrogen Characteristics -- 16. Hydrogen Production Methods4 Seawater Desalination -- 17. Sea Water Desalination -- 18. Energy Storage Systems -- 19. Hydrogen Compression Technology -- 20. Power from Air and Water Flows -- 21. Hydrokinetic Turbine Technology -- 22. Wind-propelled Ship Technology -- 23. Power from Wind over Water -- 24. Conversion of Hydrogen to Electricity -- 25. Production of Jet Fuel from Seawater.
Sommario/riassunto	This groundbreaking book aims to show that technology currently exists to build and operate large autonomous sailing ships equipped

with hydrokinetic turbines and electrolysers that could operate in high-wind ocean areas. This technology would enable seawater to be converted into storable hydrogen, thereby tapping into an inexhaustible energy reservoir sufficient for the transition to an emission-free global economy. The book is presented in two parts. Part one presents a broad look at possible solutions to the climate change challenge and provides an overview of current approaches. Part two introduces 12 specific technologies that could enable the green energy ship concept. Examines current approaches and solutions to the climate change challenge; Looks at autonomous sailing ships operating in high-wind ocean areas; Discusses technologies for converting seawater into storable hydrogen.