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Descrizione fisica	1 online resource (XX, 668 p. 109 illus., 38 illus. in color.)
Collana	Undergraduate texts in contemporary physics
Disciplina	530
Soggetti	Science—Social aspects Energy policy Energy and state Renewable energy resources System safety Nuclear energy Environmental law Environmental policy Societal Aspects of Physics, Outreach and Education Energy Policy, Economics and Management Renewable and Green Energy Security Science and Technology Nuclear Energy Environmental Law/Policy/Ecojustice
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Nota di contenuto	Nuclear Weapons -- The Offense: Missiles and War Games -- The Defense: ABM/SDI/BMD/NMD -- Verification and Arms Control Treaties -- Nuclear Proliferation and Terrorism -- Air and Water Pollution -- Nuclear Pollution -- Climate Change -- Electromagnetic Fields and Epidemiology -- The Energy Situation and Fossil Fuels -- Energy in Buildings -- Solar Buildings -- Renewable Energy -- Enhanced End-Use Efficiency -- Transportation -- Energy Economics -- Appendix A: Nuclear Arms Chronology -- Appendix B: Energy/ Environment Chronology -- Appendix C: Nuclear-Age History -- Appendix D: Units

This book provides the reader with essential tools needed to analyze complex societal issues and demonstrates the transition from physics to modern-day laws and treaties. This second edition features new equation-oriented material and extensive data sets drawing upon current information from experts in their fields. Problems to challenge the reader and extend discussion are presented on three timely issues:

- National Security: Weapons, Offense, Defense, Verification, Nuclear Proliferation, Terrorism
- Environment: Air/Water, Nuclear, Climate Change, EM Fields/Epidemiology
- Energy: Current Energy Situation, Buildings, Solar Buildings, Renewable Energy, Enhanced End-Use Efficiency, Transportation, Economics

Praise for the first edition: "This insight is needed in Congress and the Executive Branch. Hafemeister, a former Congressional fellow with wide Washington experience, has written a book for physicists, chemists and engineers who want to learn science and policy on weapons, energy, and the environment. Scientists who want to make a difference will want this book." Richard Scribner, first Director, Congressional Science and Engineering Fellow Program, AAAS

"Hafemeister shows how much one can understand about nuclear weapons and missile issues through simple back-of-the-envelope calculations. He also provides compact explanations of the partially successful attempts that have been made over the past 60 years to control these weapons of mass destruction. Hopefully, Physics of Societal Issues will help interest a new generation of physicists in continuing this work." Frank von Hippel, Professor, Princeton, former Assistant Director, National Security, White House, OSTP

"Energy policy must be quantitative. People who don't calculate economic tradeoffs often champion simplistic hardware. 'The solution is more... nuclear power, or electric cars, or photovoltaics, etc.' Some simple physics will show that the true solution matches supply and demand as an 'integrated resource plan.' Physics of Societal Issues is a good place to begin this journey." Arthur Rosenfeld, former California Energy Commissioner, Professor-emeritus, U. of California-Berkeley.