CONTENTS

	r of Illustrations	v xi
	I. ENERGY FROM FOSSIL FUELS	
	Energy from Fossil Fuels	3
	Gasification: A Rediscovered Source of Clean Fuels	11
3.	Power Gas and Combined Cycles: Clean Power from	17
4	Fossil Fuels	17
4.	Magnetohydrodynamic Power: More Efficient Use of Coal	25
	II. NUCLEAR ENERGY	
5.	Nuclear Energy	31
6.	FISSION: THE PRO'S AND CON'S OF NUCLEAR POWER	33
7.	Breeder Reactors: The Future of Nuclear Power	39
	III. ALTERNATIVE ENERGY SOURCES	
8.	ALTERNATIVE ENERGY SOURCES	47
	GEOTHERMAL ENERGY: AN EMERGING MAJOR RESOURCE	55
10.	SOLAR ENERGY: THE LARGEST RESOURCE	61
11.	PHOTOVOLTAIC CELLS: DIRECT CONVERSION OF SOLAR ENERGY	67
12.	FUEL FROM WASTES: A RENEWABLE ENERGY SOURCE	73
13.	MAGNETIC CONTAINMENT FUSION: WHAT ARE THE PROSPECTS?	79
14.	LASER FUSION: A NEW APPROACH TO THERMONUCLEAR POWER	87
	IV. ENERGY TRANSMISSION	
15.	Energy Transmission	97
	TRANSMISSION LINES: THREE NEW WAYS TO CARRY ELECTRICITY	101
	FUEL CELLS: DISPERSED GENERATION OF ELECTRICITY	109
	HYDROGEN: SYNTHETIC FUEL OF THE FUTURE	117

ENERGY AND THE FUTURE

	V. ENERGY CONSERVATION		
19.	ENERGY CONSERVATION	127	
20.	Conservation of Energy: The Potential for		
	More Efficient Use	131	
21.	ENERGY NEEDS: PROJECTED DEMANDS AND HOW TO REDUCE THEM	139	
VI. ENERGY POLICY 22. Energy and the Future: Research Priorities and			
	Energy Policy	147	
Appendix		153	
GLO	GLOSSARY		
Віві	BIBLIOGRAPHY		
Index		177	