

CONTENTS

A. THE URGENCY FOR A MULTI-NATIONAL ALTERNATIVE FUELS PROGRAM	1
Patrick McGeer and Enoch Durbin	
 B. AVAILABILITY OF ALTERNATIVE FUELS	
2. Geological Estimates of Methane Availability	19
Ken Deffeyes	
3. Supplies of Methane in the United States	31
W.J. Bowen	
4. Earth Outgassing of Methane	45
Thomas Gold	
5. Biomass Conversion to Methane	59
Michael Antal, Jr.	
6. Methane from Coal Conversion	71
Rod McElroy	
 C. TECHNOLOGICAL ADAPPTIONS FOR ALTERNATIVE FUELS	
7. Crude Oil Conservation in Motor Vehicles	83
Enoch Durbin	
8. The Natural Gas Fueled Engine	101
Gerard Born and Enoch Durbin	
9. Methane and Diesel Engines	113
Ghazi Karim	
10. The Home-Rechargeable Natural Gas Com puter Car	131
Robert Axworthy	

D. COMMERCIAL EXPERIENCE WITH ALTERNATIVE FUEL PROGRAMS		
11.	A Retail Marketing Strategy for Methane	141
	W.C. Dunning	
12.	Specifications for a Retail System	157
	Lloyd Brown	
13.	The Experience of CNG Fuel Systems Ltd	173
	Judd Buchanan	
14.	Use and Distribution of Natural Gas	183
	Velio Bellini	
15.	Innovative Approaches to CNG Vehicles	193
	John Wright	
E. SOME NATIONAL PROGRAMS FOR ALTERNATIVE FUELS		
16.	The New Zealand Experience	209
	Peter Graham	
17.	The Italian Experience	223
	Gustavo Bonvecchiato and Pietro Magistris	
18.	The Japanese Experience	245
	Munenobu Tanaka	
19.	The Netherlands Experience	253
	Jouke van der Weide	
20.	The Brazilian Experience	267
	Georg Fischinger and Rolf Siekmann	
21.	Aspects of the Alternative Fuel Program in the United States	291
	Dan Glickman	
22.	The Canadian Program	297
	Ray Perrault	
23.	Energy Policies in British Columbia	303
	Robert McClelland	

CONTENTS

xiii

ENERGY TABLES	313
LIST OF CONTRIBUTORS AND PARTICIPANTS	319
LIST AND PHOTOGRAPHS OF CONFERENCE EXHIBITORS	327
INDEX	329