

CONTENTS

INTRODUCTION/vii

Part I Wind Power/13

Electricity from the Wind: Ready-Made Units/13
Henry Clews

Do-It-Yourself Wind Generators/43
James B. DeKorne

Part II Water Power/61

Small Water Power Sites/61
Volunteers in Technical Assistance (VITA)

Building a Hydraulic Ram/94
Volunteers in Technical Assistance (VITA)

Part III Wood Power/103

Heating and Cooking with Wood/103
Ken Kern

Part IV Methane Power/137

Methane Gas Digesters for Fuel and Fertilizer/137
The New Alchemy Institute West

Our Four-Cow Bio-Gas Plant/176
Sharon and James Whitehurst

Part V Solar Power/191

Space Heating with Solar Energy/191
Robert F. Girvan

Homemade Solar Water Heaters/221
Steven M. Ridenour

APPENDIX I

Combining Alternate Energy Systems/241

Donald Marier, Ronald Weintraub, and Sandra Fulton Eccli

APPENDIX II

Conservation of Energy in Existing Structures/262

Eugene Eccli

APPENDIX III

Source Listings/284

APPENDIX IV

Conversion Tables/289

NOTES/291

BIBLIOGRAPHY/297

GLOSSARY/309

INDEX/316