Renewable Ocean Energy Sources: Part I—Ocean Thermal Energy Conversion

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Renewable Ocean Energy Sources

Part I Ocean Thermal Energy Conversion



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Foreword

This report on ocean thermal energy conversion is the first part of the Office of Technology Assessment's study of renewable ocean energy sources which are now being considered as possible contributors to the future energy supply of this country. Other ocean energy sources, such as tides, waves, winds, currents, and salinity gradients, will be included in a second part of the study. The complete work, requested by Senator Ernest F. Hollings on behalf of the national Ocean Policy Study of the U.S. Senate, will tell Congress where we are in developing the means to use ocean energy, what problems have been solved, and what difficulties are still to be surmounted. It is hoped that the reports will be useful to decisionmakers in Government and industry for guiding and evaluating research on ocean energy technologies and in making funding decisions or choices among many possible options.

The work undertaken by OTA was confined to an assessment of the technical feasibility and an evaluation of current research and development programs for each possible source of ocean energy. Because the technologies are not yet developed to the point where materials, sizes, sites, and costs can be precisely estimated, OTA found it inappropriate to attempt a detailed environmental or social impact assessment at this time.

This analysis of ocean thermal energy conversion was prepared by the Oceans Program staff of OTA with the assistance of advisors from industry, Government, and academia who provided guidance and reviewed draft materials. A working paper, which provides technical background data used in the analysis, is also being published at this time as a separate document. The remainder of the OTA study of renewable ocean energy sources will be published in late 1978.

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