

*U.S. Vulnerability to an Oil Import
Curtailement*

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U.S. Vulnerability to an
Oil Import Curtailement

The Oil Replacement Capability

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Foreword

This report responds to a request by the Senate Committee on Foreign Relations for an analysis of the U.S. oil replacement capability in the event of an oil supply shortfall of indefinite duration. The assessment complements several other OTA reports related to energy efficiency and oil replacement: *Residential/ Energy Conservation, Energy Efficiency of Buildings in Cities, Industrial Energy Use, Increased Automobile Fuel Efficiency and Synthetic Fuels: Alternatives for Reducing Oil Imports*, and *Energy From Biological Processes*.

The report analyzes energy supply and demand technologies which can replace large amounts of oil within 5 years after the onset of a major oil supply shortfall, occurring within the next few years and accompanied by a large and enduring increase in oil prices. Emphasis is placed on those technologies that are commercially available now or are likely to be commercial by 1985, and, within this group, attention is given to the least cost alternatives to oil. In addition, the report analyzes the macroeconomic effects of an oil shortfall and how these effects could be influenced by different rates of investment in the oil replacement technologies.

In the course of this assessment, OTA drew on the experience of many organizations and individuals. In particular, we appreciate the generous assistance of our advisory panel as well as the efforts of the project's consultants and contractors. We would also like to acknowledge the help of the numerous reviewers who gave their time to ensure the accuracy and comprehensiveness of this report. To all the above goes the gratitude of OTA, and the personal thanks of the project staff. It should be understood, however, that OTA assumes full responsibility for this report, which does not necessarily represent the views of individual members of the advisory panel.



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