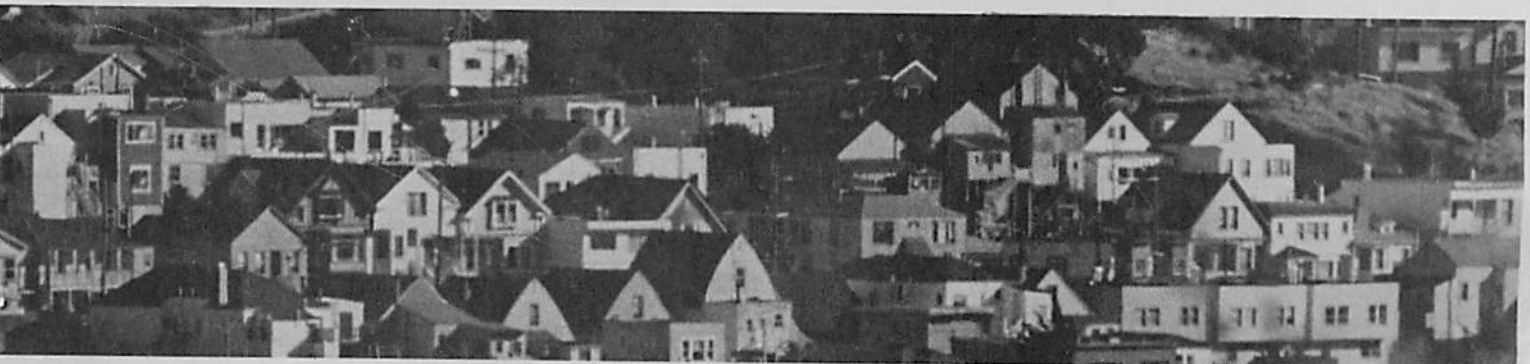
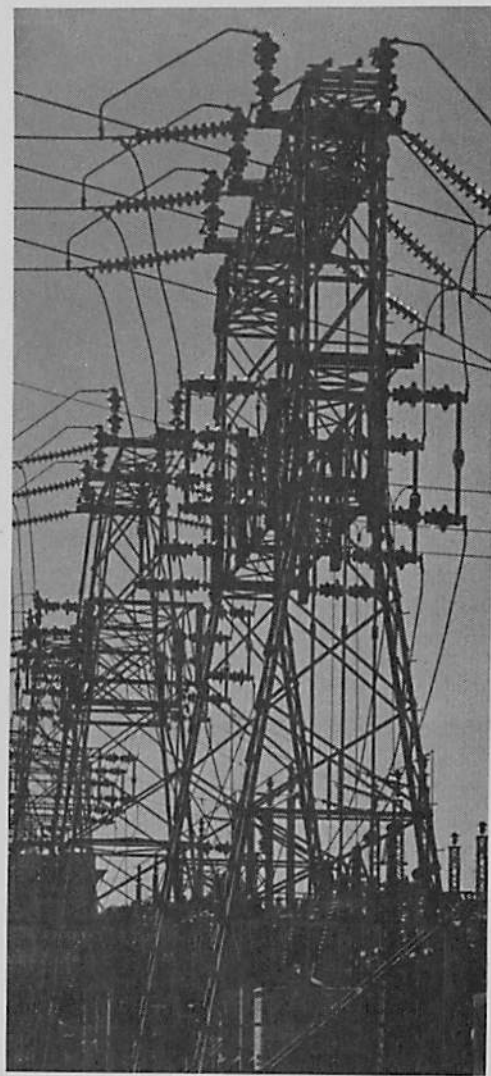
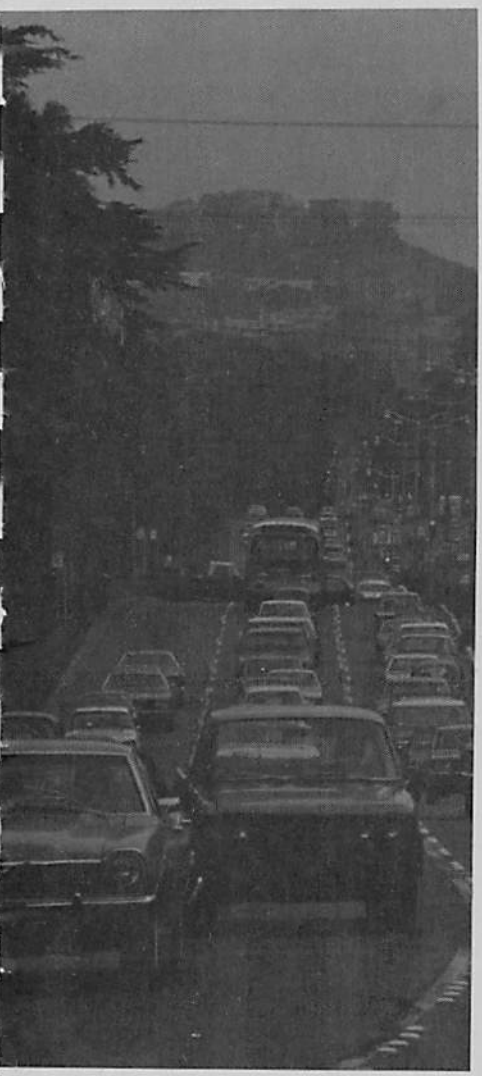


Mark C. Amis

energy in the bay area



photos: norman lew

ENERGY IN THE SAN FRANCISCO BAY AREA

Senior Seminar
Environmental Studies Group Major
June 1977
University of California, Berkeley



DIVISION OF INTERDISCIPLINARY
AND GENERAL STUDIES

301 CAMPBELL HALL
BERKELEY, CALIFORNIA 94720

June 28, 1977

To recipients of:

ENERGY IN THE BAY AREA

Environmental Studies Group Major
University of California, Berkeley

The enclosed report has been printed in limited numbers to make it available to those who assisted the authors in their inquiry, to agencies concerned with the problems, and to a number of libraries in the region.

It is a pleasure to bring it to your attention.

Cordially,

Clyde Wahrhaftig, Head Adviser
Environmental Studies Group Major
College of Letters and Science

This paper does not necessarily reflect the views of the
University of California, Berkeley.

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STATEMENT ABOUT THE AUTHORS

This study was undertaken by seniors of the Environmental Studies Group Major, University of California at Berkeley. The Environmental Studies major offers three areas of specialization, physical science, biological science and social science, from which a student selects a desired concentration. For two quarters in the senior year, students extensively study a topic of their own choosing. This year the Seminar studied Energy in the Bay Area.

Energy was chosen as the topic because of the magnitude and immediacy of the problem, one which affects all people. The purpose of the study was to develop insight into and understanding of the environmental, socio-economic and political aspects of present energy use and the energy alternatives currently under consideration. Limiting the study to the Bay Area allowed students to gain first-hand knowledge through communication with local experts and officials in energy fields and visits to production sites. However, many of the issues discussed for the Bay Area are applicable on a wider scale.

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INTRODUCTION

The subject of energy in the Bay Area is a very broad topic, yet we chose it because of its vital importance in our lives, and because of the broad range of environmental, social, and economic impacts which accompany it. The recent awareness of dwindling supplies of conventional energy sources has brought about a need for change in the way we meet our increasing energy needs. Though we haven't yet encountered an unavailability of energy, we are nonetheless in the midst of a crisis, for the decisions we make today may have a long-lasting effect on the future energy situation. Therefore we see the present crisis as a valuable opportunity to initiate changes in energy policies and attitudes which will create environmentally sound solutions to meeting our future needs. We realize that this problem is not unique to the Bay Area, but we chose to focus on this smaller region because of our familiarity with it, and because it is a more manageable unit. Hopefully our findings will apply to other areas as well.

This project attempts to view the current energy situation and propose amendments which may alleviate or even solve the problem of an energy scarcity in the San Francisco Bay Area.

The book is divided into five sections. The first section discusses the energy needs in the Bay Area for domestic, commercial, industrial, and transportation use. It provides a current perspective on consumption as well as a look into future demands.

The second section deals with the present sources used: their source, efficiency, environmental impact, and also the socioeconomic aspects. An analysis of trends in use in present sources including fossil fuels, geothermal, nuclear, and hydroelectric power concludes this segment.

The third section gives an overview of domestic, industrial, and transportation energy uses. It investigates what the energy is used for and proposes conservation measures for the present demands.

The fourth section presents alternative energy sources for the Bay Area. Energy from solar, wind, tidal, and biomass sources are discussed and considered for feasible applications in the Bay Region.

The final section concerns administration and policy for energy. It deals with the governmental responses on federal, state, and local levels to the energy situation. In addition, it reviews responses by local groups coping with the energy crisis.