

---

**Energy in the Future.** *Palmer Cosslett Putnam.* D. Van Nostrand, New York. First Edition, 1953. x+556 pp. \$12.75.

This is a study of the plausible demands for energy in the next fifty to one hundred years and the possible sources of this energy. The study was made under the auspices of the United States Atomic Energy Commission.

The author makes a historical study of population growth in an attempt to estimate the demand for energy in the future. His conclusion is that accurate predictions cannot be made. Thus he decides that the best we can do is estimate the maximum plausible demands and then consider the possible sources of energy to satisfy these demands. It is assumed that no catastrophe will befall the human race within the next century to halt the population rise.

The author assumes a rising standard of living based on a continued transition to an enlightened industrial-urban-farm pattern of economy which depends on a constantly increasing use of low cost energy. He gives little attention to low grade or inaccessible (i.e. high cost) fuels. Also, the economic value of a source of energy depends upon the particular use to which it is being put. For example, a solar energy device would not be economical for a small mobile unit such as an automobile.

The energy sources are divided into two categories:

(A) Capital energy which required the expenditure of some resource material such as a fossil fuel or a material which gives up energy in a nuclear reaction.

(B) Income energy which includes such items as water power, solar heat collectors, wind power, photosynthesis, etc.

In 2000 the author concludes it is reasonable to assume 15 per cent of our total energy requirements will be satisfied by all "income" devices, 25 per cent by residual fossil fuels, and 60 per cent by nuclear fuels.

These implications are tremendous, and while quantitative estimates probably will be incorrect, this thought-provoking book points out problems which must be faced in the very near future.

EDWARD S. FOSTER, JR.