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New Sources of Energy and Power,

by Egon Larsen (Frederick Muller)

Energy resources and supply,

by J. T. McMullan, R. Morgan and R. B. Murray (John Wiley)

The titles are similar but there the similarity ends. Egon Larsen was writing popular books about science and technology when the authors of *Energy Resources and Supply* were still in rompers. At his best Larsen in *New Sources of Energy and Power* is entertaining and informative; his 1958 Pan Original *Atomic Energy* will always have a place in my collection. Unfortunately it is less easy to recommend his latest effort. It is a brief, brisk and readable jaunt through the foothills of energy policy, describing nuclear energy, solar energy, wind, waves and tides, geothermal energy, and assorted incidentals. But the writing is guilty of casual imprecision and occasional gross inaccuracy. Even the fundamental distinction, between energy and power is blurred - as the title demonstrates.

In writing about science for the non-scientist it is of course essential to aim for clarity and simplicity; but the offhand throwaway explanation is risky. All too often it is only superficially meaningful, and evaporates if examined closely, or worse still proves to be internally contradictory. A non-scientist reader offered such an unsubstantial diet, labelled "science", is likely to come away both unsatisfied and disgruntled, convinced that scientists are a peculiarly untrustworthy breed of con-men.

No such charge can be levelled at Messrs McMullan, Morgan and Murray. In *Energy Resources and Supply* they draw together a staggering amount of solid information, carefully organised, on the whole range of energy sources and supply technologies of present-day interest, and compile an absorbingly readable commentary to tie it together. They begin with the long-overdue reminder that "energy is": that what matters is its entropy, its quality. This criterion, it is true, tends to slip below the surface later on, but there is so much in the book it would be churlish to demand yet more.

McMullan, Morgan and Murray begin appropriately with solar energy; planetary energy systems; photosynthesis, fossil solar energy, its recovery and mobilisation: coal, peat, petroleum and natural gas; mining, processing, utilisation - absorbing stuff. They move on then to nuclear energy, and - for me at least - get unnecessarily bogged down in minutiae, which means shortchanging some of the more immediately interesting aspects of nuclear energy. They seem subsequently to have noticed this, and concluding sections on policy allude with tantalising brevity to "unpleasant side effects of the nuclear fission program". However, there appears to be no reference whatever to the weapons implications of civil nuclear proliferation. With further chapters on equilibrium, solar energy, energy storage, transmission and waste, and the heat pump, the book is almost in every other respect an embarrassment of riches. This is especially so for the assiduous student of energy issues who needs a solid foothold in the hardware. Unfortunately, at £12.50 a throw, the student will have to have an embarrassment of riches already in order to afford a copy of *Energy Resources and Supply*.
- *Walt Patterson*

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sources of energy, origins of the power used for transportation, for heat and light in dwelling and working areas, and for the manufacture of goods of all kinds, among other applications. The development of science and civilization is closely linked to the availability of energy in useful forms. Modern society consumes vast amounts of energy in all forms: light, heat, electrical, mechanical, chemical, and nuclear. The rate at which energy is produced or consumed is called power, although this term is sometimes used in common speech synonymously with energy. Types of Energy.Â Energy Sustainable Development: A Challenge for the New Century (Energex2002). Krakow: Mineral and Energy Economy Research Institute, Polish Academy of Sciences. Tilton, John.