

has to say, clearly its professional readership is likely to be restricted to transport planners and to academics in related fields. To this group, however, it should prove a worthwhile reference, not just for the information it conveys about the particular problem with which it is concerned, but also for some of the methodological experience it reports. After an opening chapter setting out the background to and aims of the research project, the following three chapters describe the organisation and analysis of a survey of households in parishes in South Oxfordshire. Chapter 5 contains a summary of the survey data on travel patterns, and the following chapter such as car availability, car sharing and public transport services.

The next two chapters both employ techniques relatively little used in transport research. Chapter 7 uses a conjoint measurement approach to assess response to a number of hypothetical transport policy alternatives, while Chapter 8 reports the results of a simple 'game' played by interviewees, aimed at identifying desired modal characteristics, subject to a 'budget' constraint. Finally, Chapter 9 investigates the concepts of latent demand, transport deprivation and accessibility in the context of the South Oxfordshire area and Chapter 10 discusses some of the policy problems highlighted by the study.

This is a book which deserves the attention of transport planners. It does not pretend to open up major new horizons, but it does provide a thorough discussion of a significant practical problem and it applies techniques of analysis which are relatively new and which seem to have the potential for broader application.

ALAN PEARMAN

### **The Economics of Power System Reliability and Planning**

MOHAN MUNASINGHE

*The Johns Hopkins University Press, Baltimore, U.S.A., 1980. 323 pp. £14.50 (hardback), £5.50 (paperback)*

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Dr Munasinghe (World Bank) claims national interests, particularly in Third World countries, will be better served if his 'new optimising methodology' is applied to electric utility investment decisions. Normal practice seeks minimum present value solutions for aggregated operating and investment costs of the utility over a 30 year period subject to satisfaction of some annual reliability index. The latter conveys an 'implicit cost of failure' messages reflecting a trade-off between reliability investment and the 'outage costs' incurred by the consumer during supply failures, which the author replaces explicitly, ascribing a range of monetary valuations to different loss of supply situations, the optimisation then being performed over the total of utility costs and outage costs, the 'How much reliability?' question being answered in the process. Part 1 covers these ideas reasonably well though the chapter on electric utility costs seems less than adequate.

The case study of Part 2 describes application of the above to development (1976–2006) of a distribution system in Southern Brazil and covers demand forecasting, distribution system optimisation and planning, and outage costs. A limited optimisation over just seven different plans demonstrates the methodology, areas for further 'fine tuning' being indicated.

Appendices cover probability basics, shadow pricing, case study material, and some international data on outage costs. A glossary, references and index complete the book. The fairly non-technical/non-mathematical style makes for easy reading by a wide range of professionals (also advanced students) interested in cost-benefit applications. It is guaranteed to arouse passionate feelings but never indifference and, despite some reservations, it nicely fills a gap in the published texts on electric utility economics.

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