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ACCEPTED MANUSCRIPT

On the Role of Maximum Demand Charges in the Presence of Distributed Generation Resources

by

David P. Brown* and David E. M. Sappington**

Abstract

We examine the role that maximum demand charges (MDCs) might play in ensuring the financial viability of utilities in the presence of ever-expanding distributed generation (DG) of electricity. We find that optimally-designed MDCs generally secure gains for consumers that do not undertake DG, and often secure gains for consumers that undertake DG. However, the welfare gains tend to be modest in plausible settings. Furthermore, time-of-use pricing often secures larger welfare gains than do MDCs.

Keywords: maximum demand charges, distributed generation, time-of-use prices, electricity regulation

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