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Competition and contracts in the Nordic residential electricity markets

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Abstract

The main Nordic residential electricity markets (Norway, Sweden and Finland) effectively opened to retail competition around 1998. They have not been subject to regulatory controls on prices or other contract terms. Competition is developing well. Between 11% and 32% of residential customers have switched to other suppliers, and a further 19% or more have chosen new terms with their local supplier. Terms available include fixed-price contracts ranging from 3 months to 5 years duration and spot price-related terms, in addition to the standard variable tariffs. The use of these new products is increasing over time, and there is considerable product innovation. This raises questions about the ability of regulation to substitute for retail competition.

JEL classifications: L94 electric utilities; L14 transactional relationships and contracts; L51 economics of regulation

Keywords: Retail competition; Electricity; Regulation; Nordic countries

1. Introduction

There has been considerable discussion about the merits or otherwise of retail competition for residential electricity customers. Evidence has been drawn mainly from the UK and US.[2] The three main Nordic electricity markets (Norway, Sweden and Finland) were also effectively opened to retail competition at the residential level around 1998, at about the same time as in the UK. They provide useful additional evidence on the possible performance and contribution of retail competition.

The electricity sectors in these three countries were first reformed over the period 1991 to 1996. With some qualifications,

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[2] On the UK see for example Green and McDaniel (1998), Salies and Waddams Price (2004), Giulietti et al. (2004, 2005), Davies et al. (2005), Green (2005) and Newbery (2006). On the US and more generally see Joskow (2000a, b, 2005, 2006) and Tschamler (2006), and on Texas see Baldick and Niu (2005) and Adib and Zarnikau (2006). The volumes edited by Glachant and Finon (2003), Griffin and Puller (2005) and Sioshansi and Pfaffenburger (2006) contain some discussion of retail competition in other countries. Von der Fehr et al. (2005, 2006) discuss retail competition and contracts in the Nordic countries as an aspect of competition generally, especially comparing Sweden and Norway. Nordic Energy Regulators (NordREG) (2005) is a helpful review of supplier switching issues. My own writings on this topic include Littlechild (2002, 2003a, b, 2005a, b, 2006a, b). This paper is a revised and shortened version of Littlechild (2005b), which also has some case studies of leading suppliers in Sweden and Finland.

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these reforms have been regarded as successful.[3] Of particular interest for present purposes is that the Nordic markets were not subject to regulatory controls on prices or other contract terms. Retail competition has developed well in all three markets. The proportion of customers switching to other suppliers is lower than in the UK but higher than in most other countries. An especially interesting feature of the Nordic markets is that a significant proportion of residential customers have actively chosen terms of supply other than the standard variable tariff. The chosen alternatives include fixed prices for defined periods of time, and prices explicitly linked to the NordPool spot price.

The paper begins with a brief account of the structure and regulatory framework of the Nordic markets generally. It does not attempt an appraisal of the costs and benefits of retail competition (since it does not have access to data on costs of IT and marketing, nor on retail margins). Instead, it seeks to add an additional dimension to the debate, which has hitherto focused almost entirely on the price of a standardised product. It does so by examining the origins, nature and estimated extent of the alternative types of retail contract, taking each Nordic market in turn. The conclusion makes some limited comparison with the UK, which in some ways is a benchmark for retail competition in the residential sector, though perhaps not in this particular respect.

2. Background

2.1. Nordic market opening and the regulation of retail competition

Electricity deregulation and reform began in Norway in 1991, followed by Finland and Sweden in 1995/96. In all three countries, retail competition at the residential level was ineffective at first because customers were required to install a new meter to measure consumption on an hourly basis, and the cost of this was largely prohibitive. Only after the introduction of profiling did retail competition become feasible for residential customers. This happened in the period 1997 to 1999, at about the same time as the residential market opened (also with profiling) in the UK.

The Nordic regulatory framework is conducive to retail competition, at least within each country.[4] In all three countries there is regulated third party access to transmission and distribution networks (as in most European countries except Germany). Although vertical integration is common, there is a high degree of accounting, management, legal and ownership separation of generation, transmission, distribution and supply.[5]

In none of these Nordic countries have there been controls on prices, either before or after liberalisation. This may reflect the extent of public ownership by the national states, municipalities and in some cases counties.

In other respects, too, regulation of the competitive retail market is relatively light and simple, especially in Norway and Sweden. Incumbent suppliers are typically required to offer to customers within their area a standard tariff that is variable at two weeks' notice (four weeks in Finland). Customers can leave this tariff by giving due notice, generally without a fee (albeit with some restrictions in Finland). New entrant suppliers, including incumbent suppliers operating out of area, typically offer fixed-term contracts and in some cases spot-price contracts. Incumbent suppliers can and do offer these kinds of contract as well. Customers can change easily from an incumbent supplier's standard tariff to a fixed-term or spot-price contract with the same supplier, typically within a day or two. Apart from a short compulsory 'cooling off period' applying to contracts generally, there are no constraints on the prices or other contract terms that suppliers can offer outside their own areas.[6]

There is no competition in metering services, and distribution companies rather than retail suppliers are responsible for metering and meter reading. Nordic regulators have seen no need for any regulatory check of suppliers' data processing systems or for accreditation of new suppliers or service providers.[7]

The basic Nordic model is two bills, one for supply and one for the local distribution grid. In practice the vertically integrated companies often combine these into one bill for their own customers. There is provision for the grid company to bill other suppliers on request so that these suppliers too can send one bill to their customers. This option is not much used in Norway since the local grid companies are accustomed to bill customers for broadband and other products. In Finland there is an extra charge to the customer for this option, and discussions are underway between the companies to resolve the issue.[8]

2.2. Structure of the Nordic markets

The high annual electricity consumption of Nordic households (7–8 MWh in Sweden and Finland, 16 MWh in

[3] For example Bergman (2002, 2005), Hjalmarsson (2002), Amundsen and Bergman (2003), Swedish Energy Agency (2004, 2005) (henceforth, STEM, 2004, 2005), Von der Fehr et al (2005, 2006). The present paper does not cover the other two Nordic countries. Denmark opened its residential market in January 2003; 4% of customers have switched but there is no information on choice of contract types. (Nordic Energy Regulators (NordREG), 2005). Iceland is not interconnected with the other Nordic markets and did not open its residential market until January 2006.

[4] Von der Fehr et al. (2005, 2006) note some obstacles to transactions between suppliers in one country and customers in another, which may partly account for price differences between the Nordic countries.

[5] Norway was once judged to have the highest liberalisation indicators (competition and non-competition) of seven leading countries in Europe, just ahead of the UK. Sweden and Finland were recorded as having similar characteristics (Oxera, 2000).

[6] This contrasts with the UK, where there is a requirement that residential customers must be able to terminate any energy contract at 28 days' notice. UK suppliers must also offer a variety of payment methods (Littlechild, 2006a).

[7] Again this contrasts with the UK, where there is competition in metering services, and checking and accreditation have been expensive and time consuming. Accreditation can cost about £0.25 million and take some 2–3 months (Littlechild, 2005a).

[8] For the latest thinking see Nordic Energy Regulators (NordREG) (2005).