

Strategic change in the market for domestic electricity in the UK^{*}

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Abstract

This paper examines developments in the market for domestic electricity supply in the UK since September 1998 when the market was thrown over to competition using a variety of sources including firm interviews and a consumer questionnaire. We find that there was a substantial amount of entry, but that there has since been significant consolidation. There is still a substantial gap between the prices set by a firm in its incumbent area and prices obtainable from entrants to the market. There is no evidence that the market is near to Bertrand in operation.

1. Introduction

Economists are fundamentally interested in markets and the development and performance of these markets. However, it is seldom possible to find a market developing quickly enough that it can be observed in real time. A series of exceptions is provided by those markets previously seriously restricted that are opened up to competition by administrative fiat¹. The classic case is deregulation of the US airline industry (see e.g. Berry, 1992, Borenstein, 1989, Joskow et al., 1994 and Winston and Collins, 1992). However in that industry the idea of competition following deregulation was easily conceptualised by consumers since they had previously observed some competition, albeit muted and often focusing upon relatively trivial issues. More interesting is the restructuring and deregulation of utility markets, where there was normally no previous history to guide consumer expectations. Nowhere has this process proceeded further (at time of writing) than the UK, where *all* energy consumers now may purchase their energy requirements from whomsoever they wish (amongst the large number of companies licensed). Our aim in this paper is to examine the development of competition in the domestic electricity supply market in the UK. We investigate the process of consolidation following large scale entry and consider whether the market can

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¹ Another very extensive example is provided by the Internet. However, this market is so dynamic that trends are very hard to spot.

become competitive in operation whilst maintaining a significant number of competitors given the essentially homogeneous nature of the product².

Upon privatisation in 1990, the electricity industry in England and Wales was split into four vertical levels: generation, transmission, distribution and supply. (In contrast, the industry in Scotland remained vertically integrated but consisted of two geographically – separated players.) Generation was seen as potentially competitive even with two main players, although subsequent developments led to injection of a greater degree of competition. Transmission and distribution, on the other hand, were viewed as naturally monopolistic and therefore required regulation. Supply was considered to be potentially competitive, after a transition period in which incumbent suppliers were to be regulated and during which supply competition proceeded in stages dependent upon size of (industrial) customer. (Armstrong, Cowan and Vickers, 1994, Ch 9). The conceptual split of the domestic market into (non-competitive) distribution and (potentially competitive) supply was quite novel for consumers; privatisation of the telecoms market had not prepared consumers for such a dramatic change.

The domestic supply market was opened up to competition in stages, commencing in September 1998 and finalised by end March 2002. In order to facilitate the development of competition in domestic supply, the necessary transmission and distribution facilities are sold by the monopoly suppliers to all comers at very transparent and regulated prices, and other ancillary facilities such as meter reading are easily available. Transfer protocols are also regulated. Hence any supplier has access to information and a contractual framework enabling them to calculate how much they will need to charge to cover facilities other than those they provide themselves³. Previously, each of the 14 geographical regions of Great Britain for electricity supply and distribution purposes had a regulated Public Electricity Supplier (PES). Hence in each region, there was an incumbent or default supplier, who also remained as the distributor. These companies began competing for supply business outside their area; in many cases they offered to supply in most other regions (the main exception being a limited willingness to engage in competition in the extremities of the country such as the north of Scotland).

In addition to competition arising from existing supply companies extending across to other areas, British Gas (with the trading name Scottish Gas in Scotland) - the national incumbent in gas supply - entered the market in September 1998, aggressively marketing themselves as competing for electricity business in England and Wales (Scotland). In addition, various other companies decided to move into the market. These have included Independent Energy (September 1998), Basic Power (December 1999), Atlantic Electric and Gas (October 2000), Amerada (January 2001; an early entrant into the gas supply market), Cambridge Gas and Electric (April 2001). As a result, the typical consumer was, very soon after competition opened up in their area, able to purchase electricity from up to around 15 companies, all charging different tariffs and having somewhat different policies. However, consolidation has been very rapid so that by end 2002, the domestic

² As a result of differences in structure and complexities in pricing, electricity is a significantly more interesting example than domestic gas in terms of strategic behaviour on price and other instruments.

³ Around 30% of the typical bill constitutes supply costs (source: OFGEM).

consumer must normally choose from less than half that number of suppliers. Thus there is a considerable and rapid degree of change in the market structure, making it a very interesting market to study.

Our approach to studying the market in this paper encompasses evidence from company interviews and consumer questionnaires⁴ together with information from Office of Gas and Electricity Markets (OFGEM) and “Energywatch” publications⁵. Our company interviews were conducted in two rounds, which took place from April to July 2000 and February to April 2002 respectively. In the first round 42 managers were interviewed in 12 gas and electricity companies, which represented all of the incumbents in the industry at the time of the research. In the second round, a total of nine managers were interviewed from two of the incumbent companies and an independent entrant. The interviews were semi-structured and covered a series of issues including competitive strategies, regulatory affairs and Ofgem’s social action plan⁶. In most companies the interviews involved three or four managers who had responsibility for strategy, marketing, pricing, regulatory affairs and customer operations. All of the interviews were transcribed verbatim, coded and analysed using a qualitative software package, NVivo. For reasons of confidentiality we do not quote individual managers and companies by name in the following analysis. In the second round of company interviews we were able to analyse the interview responses against evidence about the companies’ tariff structures, their performance as regards complaints and their market performance.

Section 2 considers the introduction of competition and response of consumers to the offers with which they are presented, whilst section 3 looks at what the different companies offer. The outcomes that result are discussed in section 4 and then section 5 concludes.

2. The introduction of competition and response of consumers

When the energy markets were first opened up, it was not clear how consumers would react. Based in part on experience in the business energy markets, some commentators expected a very aggressive competitive process to occur approximating to a Bertrand game in which price would be driven quickly to near marginal cost and the number of competitors would shrink accordingly. Given this conceptual framework, together with the significance of fixed costs, considerable turbulence could be anticipated. Indeed, the gas market (the first to be liberalised) was opened to competition gradually area by area as a result of fears of instability and inability to cope with a rush of switching consumers. Resulting from the need for a much more precise balance between supply and demand,

⁴ This information relating to consumer views and behaviour is reported on in much greater detail in other papers relating to consumer choice aspects of the project, for example Giulietti, Waddams and Waterson (2001).

⁵ OFGEM is the regulator of the gas and electricity industries. Its “principal objective is to protect the interests of consumers, wherever appropriate by promoting competition” (OFGEM website). Energywatch (The Gas and Electricity Consumers Council) provides “advice and information to gas and electricity consumers” (same source).

⁶ The interviews were conducted by Bitten Brigham, Diane Sharratt and Sandy Coleman.

coupled with its larger size and complexity, the electricity supply market was also opened to competition in stages, despite the experience of rather limited consumer switching in gas. Upon opening, it attracted a lot of potential interest from companies used to handling mass market consumer relationships (for example supermarket chains) but some of this failed to materialise into actual entry. Nevertheless, there was significant entry as we have already said.

The evidence of our consumer questionnaires (see Giulietti et al., 2001) shows that consumers do have a significant reluctance to change supplier. Although price is clearly an important dimension of consumer choice, reputation of the existing supplier is also a factor, as are the perceived costs of switching (which may in significant part represent lethargy) and a belief that their existing supplier will be forced to price match. If price matching were a fact, competitive processes would plausibly do the work for you. However, such behaviour has been limited. Also, initially at least, consumers would have significant uncertainty regarding matters such as service standards and what to expect upon switching.

In fact, although it is natural to think of electricity as a homogeneous product, there are several dimensions over which competition can occur. There are three basic payment methods to suit different customer types- Direct Debit (paying a fixed monthly amount automatically), Standard Credit (paying in full in arrears, normally quarterly) and Prepayment (paying via tokens or some similar device into the meter in advance). There is the choice to use “Economy 7” for customers with electrical central heating on the storage heater model. Electricity can be bundled with gas in a “dual fuel” deal. The company’s tariff can be structured so as to appeal to smaller or larger consumers (e.g. by modifying the elements in the two- or more- part tariff). Thus, by focusing on a subset of these activities, the suppliers can and do specialise. Through our observation of the tariffs set in practice, and evaluation of the best buy across each of these categories, we can discern what appears to be company strategy in each case on the natural assumption that tariffs are designed to reflect company strategy. Our company interviews can then elaborate on the companies’ strategies.

Table 1 lists the various types of tariff that are available and, using the Energywatch website as a source, evaluates the number of lowest price offers each of the current players offers to consumers over the various dimensions and regions of Great Britain. Thus taking the first line as an example, for “low users” on direct debit and not on economy 7 or a dual fuel deal, Basic Power provides the lowest total bill in one of the 14 electricity regions of Great Britain, London is the lowest price in 3 regions, Powergen in 7, Seeboard in 2 and Southern and Scottish in 3. A figure of 14 indicates a company is the best buy in every region for that particular combination of figures; totalling more than 14 mean there are companies trying for the lowest price position. Yet the overall impression is that companies with the greatest number of “best buys” are not necessarily the large players; Basic Power is a small- scale supplier. We return to more detailed examination of the table later.

3. Company pricing and service

One thing that has become apparent is the significant benefits to being the incumbent in an electricity supply market. Thus rather than competition being Bertrand in nature, a modified version of the simplest model of the industry structure would have an incumbent in each market providing an umbrella for an essentially competitive fringe. It is apparent from tariff structures that the incumbent is in every case able to charge a price significantly above competing price offers long term whilst retaining a majority of its customers; none has lost as much as 50% of its original customer base (source, OFGEM). Based upon the average tariffs existing in the first six months of 2002, for someone on average consumption paying by direct debit (the payment method most amenable to switching supplier), by staying with their incumbent supplier they are paying over 9% more than if they switched to the median alternative supplier (with correspondingly greater savings if they switch to the cheapest supplier). Turning to interview evidence, we have for example, from a manager interviewed in one of the companies in the second round, “We also found ... that 34% of our customer base ... would never move whatever we did...”. Assuming this phenomenon is true more generally, the electricity supply market appears more like a market where there is a leader (in each area) plus a competitive fringe.

It seems not to be the case that customers are paying a premium entirely or even primarily for an established “name” in the supply business. Two of the companies who are significant market players, Powergen, and TXU, dropped their traditional names in their incumbent area in favour of a national brand name whilst retaining a substantial incumbency premium. In both cases, their margin over the median alternative on the same basis as above is 6.8%. The other players, for example London Electricity, have chosen to retain old names for local areas taken over (SWEB), but do not necessarily retain a greater proportion of customers. Thus it appears that loyalty to a company name is not a major factor in dissuading customers from leaving the incumbent as their current supplier for another supplier. Most of the market players are an incumbent in some sense, either an incumbent electricity supplier or an incumbent gas supplier (BG) and therefore are likely to benefit from an incumbency premium.

One strategy that might have been pursued by incumbent electricity suppliers is to avoid competing “out of area” altogether. Thus a collusive agreement not to take business from other incumbents, in exchange for their (implicit) agreement not to do likewise, might have been feasible, given that it would have required the absence of an action, rather than any positive action. It would have allowed them to maintain an incumbency premium over a larger group of customers and have avoided significant marketing costs. However, this clearly did not take place, given the swift entry into other areas. Incumbent electricity companies therefore price discriminate by region, charging a relatively high price in their home region (in virtually all cases, their charge is at the top of the local distribution of tariffs in the case of direct debit and quarterly billed customers) and lower

prices elsewhere in order to attract new business. Tariffs vary by region for cost reasons (distribution, transmission and generating costs), so the discrimination is effected either by means of a tariff varying by region by more than do costs or, more straightforwardly, by retaining the old company name for a “company” that only supplies in one area and having another name out of area (e.g. npower uses the name Yorkshire Electricity only in the Yorkshire distribution region). The outcomes that result are illustrated in Table 2. Here a Y means the company (listed along the top) supplies in the district in question under that name. Also shown is whether the company’s tariffs vary by area.

As a result of this discrimination coupled with the decision to go with a nationwide brand, a particular problem faces Powergen (and faced TXU) when taking over other companies, which we might label the “legacy trap”. To illustrate, Powergen previously competed with TXU for customers in the Eastern region; in order to capture customers, it will have set lower prices there than did TXU and lower prices (in relation to costs) than in its home region, East Midlands. However in October 2002 it took control of TXU’s supply business. This means it faces a challenge, post-merger. It either has the prospect of retaining the identities separately, meaning that it might face competition from within the company and increased costs, or it transfers all non-incumbent region TXU customers to Powergen tariffs, retaining the TXU brand only for TXUs former incumbent areas plus TXUs customers in East Midlands (a rather messy solution), or it merges the brands entirely. If it takes the last course, it seems that prices to old TXU customers in its former incumbent regions will be reduced to Powergen levels, reducing profit on those customers. Otherwise, there will be two sorts of Powergen customers in (say) Eastern region paying on different tariffs- those previously signed up for Powergen paying the lower tariff.

A significant implication of this possibility for substantial discrimination is that independent companies, not previously known for their ability to supply electricity face a significantly tougher strategic challenge and lower profits prospect overall. Indeed, it is not clear what their “unique selling proposition” may be. First, they have the expense of getting themselves known, then they need to pitch their price and service offer such that it offsets any remaining name recognition factor. Thus there is evidence from the tariffs they set that they need to pitch prices low relative to players already in the supply business in order to gain custom. In this context, it is notable that such players emphasise price as the main factor in attracting customers, whilst incumbents commonly emphasise the importance of service characteristics⁷.

It has been noted previously that it is difficult to glean hard information from interview concerning pricing strategy (see e.g. Singh et al., 1998). In our interviews we found that firms tend to rely on vague statements concerning pricing relative to costs and relative to

⁷ To take some examples, from the Southern Electric website we read: “We are one of the largest energy suppliers in the UK. With our unique range of great value products and our first class customer service it’s easy to see why.” Contrast with Basic Power: “Since the freeing up of the electricity market in 1998, all 26 million customers in the UK have the choice to select an electricity supplier which meets their needs and expectations in terms of product, service and price. Basicpower makes that choice easy by providing a cost-effective product to everyone.”

competitors, but we have also found they do not necessarily aim to be competitive on price if they feel their market positioning to be strong. For a supplier, costs of fuel purchase do differ according to the demand profile, but we uncovered little evidence of supply companies attempting to use this positively in gaining domestic customers.

However, based upon the lowest price offers set out in Table 1 together with data on pricing from earlier that year, we can identify features of particular companies' "revealed" pricing strategies. Considering the independents first, Amerada, Atlantic and Basic Power all seem in practice to price around or below the median price.⁸ Amongst these independents, Atlantic's strategy is clearly to go for the larger -consuming direct debit customers with a dual fuel offer and with more focus on Economy 7. Basic power has the most focused competitive strategy and has by far the greatest number of lowest prices. It only sells electricity and concentrates very much on the medium and high consuming consumers, with a very strong offer across the regions of England and Wales (it does not supply Scotland) including prepayment customers. British Gas markets its offer strongly but is seldom price competitive, with the main exception being prepayment customers on Economy 7.

Turning to the established electricity market players, London Electricity is most competitive on dual fuel for low and medium consumers and has a focus on the lower consuming customers. npower is more focused on dual fuel than anything else, but is not particularly competitive. Powergen is more competitive than any similar established player, but is not as focused as Basic Power; it is comparatively good for low consumers and has some focus on offering a good deal to prepayment customers. Scottish Power, Seeboard and Southern are not very price competitive and have little focus, except that Southern is comparatively good for low consumers, TXU has something of a focus on direct debit. Thus from the evidence of this spread of low price offers, there is no real head-to-head contest between the suppliers. Of course in retrospect at least this is what we might expect, based upon observation of competition in airline markets, for example.

It is interesting to note that only two companies, Amerada and Scottish Power, now offer internet-only supplies (where the interface is via the internet, at least initially), perhaps indicative of the relatively transparent nature of competition in this case. Prices at these two sites are lower than the companies' off-line tariffs, but do not necessarily undercut the best off-line offer. Of the two, neither is completely dominant, but Amerada offers the better package in the vast majority of cases. It is almost completely dominant in price terms across medium and larger consumers, implying it seeks to dominate on this channel, whereas Scottish Power is a better buy in the main for low consumers on the standard credit tariffs.

One difference that is apparent between the initial position on liberalisation and now relates to Prepayment customers. In the first two years or so of competition, there seems to have been a general perception that this was a type of customer best avoided as being costly to serve (and may have problems paying for fuel). As a result, whilst other

⁸ This is the median in the set not including the incumbent. In the latter part of 2002, Amerada abandoned its off-line offering, so this refers to its pricing policy earlier that year.

customer classes generally benefited from switching supplier, until at least mid- 2001 this was the case only for a few regions' Prepayment customers. Tariffs that were offered by new market participants were generally in excess of those available from their PES. Now however Basic Power in particular, but also Powergen, does offer significant savings for this group of customers. In electricity, much more than gas, they are a large segment of the market. Sharratt and Brigham (2002) argue that for some companies low income customers are perceived as a market niche, which cannot be ignored in the context of market consolidation.

Moving away from the focus on price, several of the managers in the companies interviewed claimed that service was an important element in their overall marketing strategy (together with a "well-trained" sales force). Indeed some view service as more important than price or loyalty to an existing distributor. Factors considered important in service delivery include: attitude, availability, accessibility (ease of contact with the company, including free phone numbers) and bundling, for example: "The difference is not what we do but the way we do it, or that's our aspiration...the services that we wrap around it and then the move into other products and services is where we intend to differentiate ourselves..." and "I believe we were the first to offer this dual fuel idea." and "...we're going to seek to differentiate ... through additional products and services", for another, "Moving away from the price message is good for us." More than one company claims to provide the widest range of payment methods. Methods for retaining customers include capped price contracts for one to two year periods with price guaranteed not to rise for a year or even two.

Despite many of the companies claiming to be offering or aspiring to offer excellent service, there is some belief that it only matters if the company gets it badly wrong. For example, the npower website states "we want to ensure you receive the highest standards of service..." and "There are a number of Electricity Guaranteed Standards as well as Overall Standards to ensure that you receive outstanding service." However, this same company is criticised on the industry "watchdog" Energywatch website for its continuing relatively high levels of complaints. ("npower's record on transfers remains appallingly high", November 11, 2002). In one of the second round interviews, in talking about how to capture new customers, a respondent (from another company) commented "At this point we are supposed to say fantastic service but we know we haven't".

4. Companies' Strategic Actions and Outcomes

Presumably as a result of their poor competitive position, independent companies have not fared well in terms of staying in the market long-term. On August 2001, there was a high-profile bankruptcy of one of the leading independents, Independent Energy. Another, Cambridge Energy, sold out. Amerada's retail trading activities were taken over by TXU in March 2002. Managers in former PES companies in the market speculate in the interviews as to how long the remaining independents can survive. Indeed, some cynically suggest the independents are there merely to sell out their acquired customer base to larger players. Of course, there has also been significant

consolidation amongst former PES companies, with a swift appreciation by all of the potentially vulnerable position of the smaller players amongst them. Table 3 charts this consolidation process over the period of just over three years from the start of competition in supply until the end of 2002. The first column lists the major suppliers, first the independents then the incumbents whilst the rightmost columns give the current position of that firm.

By contrast with the independents, one thing that has become apparent is the powerful strategic position of British Gas, a factor raised by several of the managers in the remaining larger companies. It has a well known name and an unparalleled national position as a result of its incumbency in gas. This, together with what is arguably clever marketing and a large advertising budget, has enabled it successfully to pursue an aggressive strategy in respect of signing up electricity customers; so much so that it may be the largest domestic electricity supplier in Great Britain, as well as being the largest gas supplier⁹. The main marketing tools include emphasising its reputation and experience, its customer service, its dual fuel deals, its range of allied services, and its “zero standing charge” tariff (where it has the reputation of being the innovator, which others dispute) rather than having a focus on price. It has captured many electricity customers despite not being particularly price competitive against other market entrants. With the exception of Scotland (Scottish Gas), it is seldom below the median price offering amongst entrants to the region for a customer with an average bill size; of course its price is below the incumbent’s.

A clear impression from our interviews, particularly the first round of interviews, is that many of the existing players see the market as having a shakeout of necessity- there are too many players in the market. There seems to be a consensus that there will eventually be 4-5 supply companies, each serving 4-5 million customers, with British Gas quite possibly dominant. Presumably, this comes from a calculus relating likely margins available, the degree of stickiness of some consumers, and marketing costs. Indeed, it is remarkable how far the market has progressed in terms of this “target”. The lower part of Table 3, correct as of December 2002, lists the major suppliers together with claimed customer numbers. Based upon this table, the process of consolidation is substantially complete, with two surviving (but small) independents, plus British Gas, both the Scottish-based integrated players, Powergen, London Electricity and npower.

However, the deeper question concerns why it is seen that four or five firms will survive into the longer term. Clearly, there are significant elements of cost of supply that are a function of customer numbers, not consumption, so that if these cannot be priced separately, each surviving firm will need a significant share of the market’s customers. But it is also indicative that market players do not envisage price or promotional competition being severe enough to cause a fall in numbers to, say, two players. How will the process develop further?

⁹ Powergen claims to be the largest domestic electricity supplier following its takeover of TXU in October 2002. However, there is some conflict between its claimed customer numbers and those claimed by British Gas. Both claim around 5.5m domestic electricity customers.

In terms of profitability, given the relative prices it is true for the medium term that existing customers are far more profitable than new customers. Existing customers can be charged more yet are less likely to switch supplier. Thus a key aim of companies is to retain as many as possible of their existing customers. One of the main mechanisms here appears to be dual fuel. By offering the “other” fuel relatively cheaply, the package of both fuels can seem reasonably good value to the consumer compared with not changing supplier at all, (though of course not compared with shopping around for both fuels, and perhaps surprisingly, it is clear from the Energywatch website that dual fuel deals may well not be the cheapest).

One question where there seems to be a range of views expressed in interviews concerns targeting of new consumer types. Here, as with service standards, there is some dissonance between aspirations and reality as well, perhaps, as a reluctance to admit to reality. Clearly, each company wants to capture profitable new consumers. But which are profitable? In general it is considered that those consuming large amounts of electricity and paying by direct debit are the most profitable, since there are fixed costs in serving customers that have to be covered. On the other hand, repeated consumer switching between suppliers for small advantages (churn) is running at high levels and is a problem for all companies, meaning that signing up a customer in a crowded area of the market may mean they do not stay as long as signing up someone in a relatively unprofitable segment who may not be subject to churn. Thus whilst most companies go for the high consuming regular payers, there is potentially room for diverse strategies. Indeed there is a clear appreciation that there are demand niches.

Linked with this is the question of how, as a supplier, to capture the ideal set of consumers. It is here that there is a gap between aspirations and reality. Often suppliers have clear targets. Thus, for example from the first round of interviews, “so, from the residential point of view our primary target is family with children, C1, C2¹⁰, average age of the parents over 30, average age of children over 5, household’s income in excess of £30,000, that’s our primary target...”. Yet, apart from Internet based sales methods, which provide a minority of leads, most of the companies rely on doorstep selling and incentivise their sales forces by paying them on results. However the payments schemes are not particularly sophisticated. Therefore, the sales force tend to target areas where they will make large numbers of conversions rather than being selective in ways the suppliers would like. This in turn means things as simple as targeting districts where it does not take long to get to each front door. The following quote is illustrative: “Well when acquiring new customers we are obviously looking for profitable customers, we would like to have customers with a high consumption because then we know we’ve got the same fixed costs per customer, so they’ll be more profitable, but we can’t do that much targeting *because they tend to come in from the doorstep*.” From another company, “...they [doorstep sellers] are not looking for the flash business up the drive, because you’ll get thrown out...they are nevertheless looking for ... in old-fashioned sociological terms sort of Cs and Ds I suppose rather than As and Es. Simply because... that’s the

¹⁰ A long-established social classification scheme in the UK has the categories A to E, with the middle category broken into two subdivisions. This relates more to “status”, A being the highest, than income, but does correlate with income.

market they can get their biggest strike rate on...”. Again, “...you cannot be very selective using field sales...”. This appears to be a very general phenomenon observed across the companies and itself influences the degree of churn.

A further question on targeting, which can be controlled within doorstep selling methods, concerns geographical focus. Here it appears very common for the existing incumbents to target their “halo areas”- those regions adjacent to the one in which they are an incumbent. This is in part because the margins available essentially rule out nationwide television as a marketing tool for most players, in part because it is not clear why a consumer would go for a particular company they had no affinity with (why should a Cornishman go for Scottish Power, for example?). Given the limited search in which consumers engage (Giulietti et al, 2001), it is not necessary to be the cheapest in an area in order to gain customers, provided you have some reputation, we were told. Again, it is worth noting that independent companies have no natural target in this sense unless (like Amerada) they have built up a name already for gas sales into an area.

It is interesting to examine the extent to which incumbents have lost share, since this differs a good deal across market areas. Is price or reputation more important as a factor? In particular, to investigate this relationship we have related losses of customers to persistent price differences and to levels of complaints. For the purposes of this exercise, we have defined persistent price differences in two ways. First we examine the difference between the incumbent’s price for average consumption (weighting quarterly bill and direct debit equally¹¹) and the minimum average price from the cheapest supplier for the first six months of 2002, second, the difference between the incumbent’s price and the median price amongst other suppliers in the region, averaged in the same manner. Market losses by region are obtained from the OFGEM website and relate to end-June 2002 (the latest available). Complaints data used refer to the period June-August 2002. These data are listed in Table 4, together with correlations between them. Clearly, all these things are potentially endogenous- the firms choose prices and have policies which (presumably to some extent) determine levels of complaints. Having said this, given that no one seeks to provide poor service, there is some weak evidence to suggest that higher complaint levels are associated with greater proportions of consumers switching away. There is an almost statistically significant (at 5%) positive correlation between the two.

The relationship between price differences and switching proportions across the supply districts is particularly interesting. Figure 1 plots one representation of this. It can be seen that there is some appearance of there being an upward sloping relationship, meaning that the larger the percentage difference between the median supplier’s price and the incumbent’s price the more likely are consumers to switch away from the incumbent. However the relationship is clearly not statistically significant and neither does it bear on the ultimate determinants of price differences. Nevertheless it is interesting to note the one complete outlier- the Scottish Hydro region. This is the more northerly and rural of

¹¹ We exclude Prepayment customers from the comparison since it is only comparatively recently that they have been able to save money by switching. Therefore, the views of such customers may be substantially influenced by their previous, unsuccessful, investigation of alternatives.

the two regions in Scotland; presumably it points to the lack of attractiveness of this area for door-stepping campaigns.

In one further respect, there is a very significant difference between the originally conceived industry architecture and that, which now prevails. Recall that the original conception was of vertical separation between supply (in England and Wales) and generation. In fact now, each of the major suppliers is in some sense vertically integrated. As well as the two Scottish generators- Scottish and Southern and Scottish Power, the two major generators, Powergen and National Power (npower) have retail arms, London Electricity is owned by EDF, a “generator” through the Interconnector, and British Gas has obvious interests in a major raw material input. Some companies in the market clearly see these vertical links as an important element of competitive strategy, although they do not specify quite why. It is also interesting to note that the ultimate owners of many of the operators are energy companies based in the US or continental Europe; many interviewees particularly in the second round of interviews were of the opinion that the only British company likely to remain in the market long term was British Gas.

5. Concluding Remarks

Despite the seemingly homogeneous nature of the product, the UK domestic electricity supply market is clearly not Bertrand in operation. However, it does seem to be moving towards a shared company vision in which a handful of players can co-exist as a result of the interaction between typical cost structure and likely pricing levels achievable. To some extent, the degree of competition and competitiveness of pricing depend upon consumer behaviour. An interesting manifestation of this is the fact that although our interviews suggest it costs around £50 to £60 per customer to attract new customers from another player, recent purchases of companies that involve buying customers (amongst other things) value customers of the incumbent several times higher. According to press reports, in 2002 London Electricity paid £309 per SEEBOARD customer, and Powergen £280 for customers of the ailing TXU company (Guardian, 22nd October 2002). At the other end of the spectrum, there is the problem (for companies) of “churn” arising from a subset of consumers who switch supplier several times. Other aspects are more a result of strategic decisions of companies to focus on serving particular segments of the market. In some senses, they are thwarted in this endeavour by the scattergun approach of doorstep sales that many companies rely upon in signing up new consumers. Since this gives rise to consumer complaints (see the Energywatch “compare” page) it is surprising no significant alternative approach has emerged. Nevertheless, given the significant numbers that have switched away from their incumbent, as reported in Table 4, the market is changing fairly rapidly.

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Table 1- A listing of “best buy” tariffs for the various submarkets in electricity

User	Tariff	Supplier Detail	Atlantic	Basic	BG	London	npower	Powergen	Scottish	Seaboard	Southern and Scottish	TXU	Sum
Low	Direct debit	Standard		1		3		7		2	3		16
Medium	Direct debit	Standard	2	12									14
High	Direct debit	Standard	2	12									14
Low	Prepayment	Standard		8	1			4				1	14
Medium	Prepayment	Standard		11	1			3					15
High	Prepayment	Standard		10	1			3					14
Low	Standard Credit	Standard				3		2		2	7		14
Medium	Standard Credit	Standard		8	1		4			1			14
High	Standard credit	Standard		12	2								14
Low	Direct debit	Econ 7	1	7	1			5			2	1	17
Medium	Direct debit	Econ 7	4	12									16
High	Direct debit	Econ 7	2	12	1								15
Low	Prepayment	Econ 7		8	3			5					16
Medium	Prepayment	Econ 7		11	3			2					16
High	Prepayment	Econ 7		11	3								14
Low	Standard Credit	Econ 7		4	1			6			4		15
Medium	Standard Credit	Econ 7		13	1			1			1		16
High	Standard credit	Econ 7		13	1								14
Low	Direct debit	Dual fuel				4		3				10	17
Medium	Direct debit	Dual fuel	5			2	3	1		1		4	16
High	Direct debit	Dual fuel	5				6		1	2			14
Low	Standard Credit	Dual fuel				12		2					14
Medium	Standard Credit	Dual fuel				6	1	5		2			14
High	Standard credit	Dual fuel				3	4	5		3			15
Low	Direct debit	Dual fuel econ 7	1			2		8				4	15
Medium	Direct debit	Dual fuel econ 7	13				1					1	15
High	Direct debit	Dual fuel econ 7	12				1	1	1				15
Low	Standard Credit	Dual fuel econ 7				4	9					1	14
Medium	Standard Credit	Dual fuel econ 7				3		11					14
High	Standard credit	Dual fuel econ 7				2	1	8	4				15

Number of "best buys"	47	165	20	44	30	82	6	13	17	22
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Notes:

Data for December 2002. Gas is not regionally priced in the same way, so in that case best buys are constant across regions. TXU, Powergen, Scottish Power and Atlantic are the key players in gas.

"Best buys" represent the lowest price bill, to the nearest pound, disregarding "special offers" such as airmiles.

Where numbers in rows add to more than 14, there are joint "best buys".

Source: Energywatch website, http://www.energywatch.org.uk/supplier_information/comparisons_of_price/index.asp

Table 2- The pattern of offers by incumbents across areas

Supplier	London	npower	Powergen	Scottish Power	Seeboard	Southern/Scottish (Hydro)	TXU	Yorkshire	SWEB	Swalec	Southern	Northern	Manweb
Region													
Yorkshire	Y		Y	Y	Y	Y	Y	Y					
SWEB		Y	Y	Y		Y	Y		Y				
Swalec	Y	Y	Y	Y	Y		Y			Y			
Southern	Y	Y	Y	Y	Y		Y				Y		
SEEboard	Y	Y	Y	Y	Y		Y				Y		
Scottish	Y	Y	Y	Y	Y	Y	Y						
Scot	Y	Y	Y	Y	Y	Y	Y						
Hydro													
Norweb	Y	Y	Y	Y	Y	Y	Y						
Northern	Y		Y	Y	Y	Y	Y					Y	
Midlands	Y	Y	Y	Y	Y	Y	Y						
Manweb	Y	Y	Y		Y	Y	Y						Y
London	Y	Y	Y	Y		Y	Y						
Eastern	Y	Y	Y	Y	Y	Y	Y						
E Mids	Y	Y	Y	Y	Y	Y	Y						
	Y		Y	Y			Y	Different tariffs by area?					

Incumbent electricity suppliers only, December 2002

Table 3: The GB Electricity Supply Market Since 1998						
Supplier	Notes	Entry Date	Name change/ Exit (date)		Current owner	Holding Co
Amerada	Initially a Gas supplier	08/01/01	Transferred to TXU then sold to Powergen (Oct-02)		Powergen	E.ON
Atlantic Electric and Gas	Independent company	12/10/00			Atlantic	
Basic Power	Independent company	01/12/99	Utility Link (Jan-00)- later dropped		Utility Link	
British Gas	Gas supplier	Sep-98			Centrica	BG
Cambridge Gas and Electricity	Water company offshoot	Apr-01	Local electricity supply only*		Cambridge Water	Union Fenosa
Energy Supplies UK	Water company offshoot		No longer actively marketing*		Dee Valley	
Independent energy	Independent company	Sep-98	Bankrupt- assets to npower, (Aug-01)			
National Power	Generator- purchased Midlands supply	30/06/99	Innogy/npower (21/09/99)		innology/npower	RWE
Powergen	Generator- purchased East Midlands supply	27/07/98			Powergen	E.ON
TXU Group	Purchased Eastern Electricity	01/09/98	Eastern and Norweb relaunched as TXU Energi		Powergen	E.ON
Virgin Energy	Operating under LE Group	Early 2001			LE	EDF
Eastern Electricity		Incumbent	Sold to TXU 01/09/98		Powergen	E.ON
East Midlands Electricity		Incumbent	Sold to Powergen 27/07/98		Powergen	E.ON
London Electricity		Incumbent			LE	EDF
Manweb	As Scottish Power	Incumbent			Scottish power	
Midlands Electricity		Incumbent	Sold to National Power 30/06/99		innology/npower	RWE
Northern Electricity		Incumbent	Sold to Innogy 21/09/01		innology/npower	RWE
NORWEB		Incumbent	Sold to TXU 03/08/00		Powergen	E.ON
Scottish Hydro	Vertically integrated	Incumbent			Scottish and Southern	
Scottish Power (south of Scotland)	Vertically integrated	Incumbent			Scottish Power	
Seeboard		Incumbent	Sold Jun-00 to AEP, July 02 to LE		LE	EDF
Southern	As Scottish (Hydro) and Southern	Incumbent			Scottish and Southern	
SWALEC	Sold to British Energy 17/02/00	Incumbent	Sold to Scottish and Southern		Scottish and Southern	
South Western Electricity		Incumbent	Sold to London Electricity 30/09/99		LE	EDF
Yorkshire Electricity		Incumbent	94.75% sold to Innogy 02/04/01		innology/npower	RWE
Dec-02						
Major Supply Groups	Claimed Customer Numbers					
BG/Centrica	18.6m	13m gas, 5.6m electric				
Powergen	7.8m	5.5m electric, 2.3m gas				

npower	7m	not broken down			
Scottish and Southern	5m	not broken down			
Scottish Power	3.5m	2.6m electric, 0.9m gas?			
LE	3m	2.5m electric			
Notes:	Data as of December 2002				
Sources: OFGEM, Company corporate websites, newspaper and market reports, etc.					
List may not contain all smaller but active operators					
* No longer listed as a domestic electricity supplier in OFGEM's list					

Table 4: The relationship between switching, price differences and complaints

Region	Money gap from lowest	% gap	Switchers %	Complaints	Money gap from median	% gap
EASTERN	26.23	11.66	35.00	0.031	15.54	6.91
EMID(Powergen)	29.75	12.89	39.00	0.041	15.45	6.69
LONDON	29.20	12.02	32.00	0.026	18.30	7.54
MEB	30.67	12.80	39.00	0.131	19.40	8.09
MANWEB	37.33	14.02	39.00	0.070	26.15	9.82
NORTHERN	51.25	20.32	41.00	0.131	27.24	10.80
NWEB	34.09	14.33	41.00	0.031	22.93	9.64
SEEBORAD	32.85	13.89	35.00	0.024	23.63	9.99
SCOT HYDRO	38.99	14.52	19.00	0.027	22.02	8.20
SCOT PWR	39.96	14.40	34.00	0.070	26.50	9.55
SOUTHERN	36.64	14.53	33.00	0.027	25.07	9.94
SWEB	34.03	12.85	31.00	0.026	22.57	8.52
SWALEC	40.83	14.26	33.00	0.027	26.36	9.21
YORKS	43.68	17.88	38.00	0.131	25.90	10.60
Column	B	C	D	E	F	G
Correlations						
B	1.00					
C	0.93	1.00				
D	0.06	0.25	1.00			
E	0.51	0.63	0.50	1.00		
F	0.84		0.06	0.30	1.00	
G		0.77	0.27	0.40	0.92	1.00

Notes:

"Money gaps" refer to the average price difference for an average consumer, weighting direct debit and standard credit customers equally, over the first 6 months of 2002 (Authors' calculations based on Energywatch price tables).

Switchers % gleaned from OFGEM website, December 2002

Complaints refer to August 2002, from energywatch website

Data relate to incumbents only

Figure 1: Switchers v median price difference

