

Switching costs

Summary

1. LPG suppliers retain ownership of LPG tanks installed at the properties of their domestic customers, and if the customer switches supplier the tank of the outgoing supplier is removed, and replaced by one from the new supplier. The upfront charge to a domestic customer for tank installation and removal varies widely. Among the four major LPG suppliers (Calor, Flogas, Shell and BP) the (weighted average) standard installation charge is £100 and the standard removal charge is £135. These standard charges were applied to around half of all customers for whom a tank was installed and removed (respectively) in 2003. In a substantial proportion of cases [38] of both installation and removal no charges were applied. Over all installations and removals the average charges were £90 and £70 respectively; among those charged the average charges were £155 and £120 respectively.
2. The cost to the LPG suppliers (particularly of installation) is substantially higher than the charge to the customer and the difference is usually recouped through the price of LPG. Even so, the upfront switching charge is often substantial in relation to the potential savings available to a customer by switching, and, even where there is apparent scope for savings by switching, customers on the whole do not do so. One reason for this is that, although the industry has developed codes of practice in relation to switching, the inconvenience to customers of switching tanks is potentially considerable, and is perceived as such by customers. The time taken to switch between LPG suppliers is considerable, including a three-month notice period. Underground tanks, which have become more common, are more expensive to install and remove.

3. Standard customer contracts either specify the standard removal charge, or note the customer's liability for the cost of removal without indicating what this cost will be. Minimum contract terms are common, both for new customers and those who negotiate discounts (the discount being in some cases conditional on the customer signing the new contract). In practice, removal and installation charges are not always made in full, and contract terms such as notice periods and penalties for early termination of contracts are not always enforced, but the scope for avoiding such terms is not known to customers in advance, and will depend on circumstances, company policy, and negotiation between customer and supplier. Around 9 per cent of customers are on metered estates, and these customers may face additional barriers to switching, such as the need for coordination between those on the estate, and possibly the consent of an estate manager.
4. Each year, around 3 per cent of the major suppliers' customers end their supply arrangement. Only one in six of these (0.5 per cent of the customer base—one in every 200 customers) switch to an alternative supplier per year. The major suppliers told us that high satisfaction levels were the primary reason more customers did not switch, but we have seen little evidence that customers have a strong preference for, or loyalty to, their existing supplier. Many customers began using their LPG supplier by moving into a property at which a tank owned by that company had been installed under a previous supply agreement. While survey evidence suggests general satisfaction with the quality of service, there is no evidence that alternative suppliers are seen as offering a poorer service and customers are less satisfied that they are getting value for money.
5. Many customers could obtain substantial savings by switching to a different supplier (whether from introductory prices, a lower average price, or both) or by threatening to switch. That most do not switch to avail of these savings is indicative of switching

costs. While in certain circumstances a market with switching costs may be competitive, evidence such as the wide difference in prices, which are not explained by cost differences, suggests that this is not the case for domestic bulk LPG.

Measurement of switching costs

6. We begin by considering the possible costs, or barriers, to switching LPG suppliers.

Cost of removal and replacement of tanks.

7. Costs to suppliers, and charges to domestic customers, for installation and removal of bulk LPG tanks are shown in Table 1.¹ Installation costs to the supplier range from £250 to £650, while removal costs appear to be more standardized at around £200 to £250. [X] recovered charges from a majority of its customers for installation, on average at around one-third of the cost to [X]. Its recovery of charges for removal followed a broadly similar pattern, except that the average charge was just over half the cost to [X].
8. [X] installation and removal charges are the highest of the four major suppliers, and each is recovered from seven in ten customers. [X] charges the lowest standard charges for both installation and removal. Its rate of recovery of these charges is also low, with the result that its average installation/removal charges are generally well below those of other suppliers. On the basis of these figures, a customer paying standard charges and switching within the big four could pay a total (installation/removal) cost ranging from £55 (switching from [X]) to £370 (switching from [X]). A customer paying the weighted average removal and installation charges would pay a total of £162.

¹Data is presented for British suppliers (ie excluding Calor NI and Flogas NI) unless otherwise stated.

³[X]

TABLE 1 Switching costs for above-ground tanks in 2003

	Calor	Flogas*	Shell†	BP	Major suppliers
Average cost to company of installing tank‡ (£)	()				256–655
Standard installation charge (£)					103¶
Average installation charge (among those charged) (£)					156¶
Average installation charge (all) (£)					91¶
Number of tanks installed					2,092
Proportion paying no installation charge (%)					42
Proportion paying standard installation charge or above (%)				<	51
Average cost to company of removing tank (£)					192–250
Standard removal charge (£)					135¶
Average removal charge (among those charged) (£)					118¶
Average removal charge (all) (£)					71¶
Number of tanks removed					3,294
Proportion paying no removal charge (%)					39
Proportion paying standard removal charge or above (%)					48

Source: LPG suppliers.

*Underground tanks included in removal data.

†Removal data based on incomplete records.

‡To a site on which a tank has previously been installed; and excluding the cost of the tank: this will vary widely depending on the supplier's access to second-hand tanks.

§Depending on tank size and material requirements.

¶Weighted average.

#Including removal of gas from the tank. The cost for removal of an empty tank was £[<].

~[<]

9. It has been suggested that some savings might be made on the cost of tank installation and of tank removal if a customer is switching between supplier, rather than having a tank installed for the first time, or having a tank removed without its being replaced by another tank. [<] estimated the combined cost to the incoming and outgoing supplier at £330 in such a case. However, estimates by [<] of installation and removal in such a scenario, at £[<] and £[<] respectively, were not much lower than its average estimates of installation and removal in Table 1. The combined cost of all tank installations and removals due to switching in 2003 was around £350,000.

10. [<] told us that their uplift charges to customers who move to a different LPG supplier are the same as to customers who stop using LPG. [<] provided data on average charges to both groups: in both cases the average charge to those switching

within LPG were slightly lower than to those switching out (although the difference was not significant). The removal cost to the outgoing supplier is typically lower if the customer is switching to another LPG supplier, as the incoming supplier will disconnect the tank. [S&C] estimates the cost at £[S&C] rather than its £[S&C] average cost. Among the major suppliers, and with the exception of [S&C],³ this cost difference does not appear to be reflected in lower charges to customers.

11. Major suppliers told us that they do not refund or compensate new customers for the uplift charges of their previous suppliers. However installation charges may be reduced or waived, or a credit may be offered against future gas supplies: even if not specifically linked to the uplift charge, such offers will reduce the immediate net cost of switching—albeit that suppliers will expect to recoup these costs in the course of the supply arrangement (eg in the price of LPG). Customers who switched from another LPG supplier to [S&C] in 2003 were twice as likely as other new [S&C] customers to have their installation charges waived (39 per cent vs 17 per cent). Shell told us that such inducements were quite common.
12. The major suppliers have argued that the costs to customers of tank installation and removal are modest relative to the savings that can be achieved by switching. This point is considered as a worked example, attached as Annex 1. The analysis suggests that many customers are likely to find that installation and removal charges are a substantial, if not prohibitive, cost in switching between suppliers, relative to the savings available. This result is stronger for having been obtained without taking non-monetary switching costs (such as inconvenience) into account.

Smaller suppliers

13. Charges made by smaller suppliers for tank installation and removal are shown in Table 2 (based on replies from ten firms which account for an estimated three-

quarters of small-scale LPG supply by volume and customers). As can be seen, the majority of customers did not pay for tank installation and removal.

TABLE 2 **Installation and removal charges by smaller suppliers in 2003**

Number charged for:

<i>Charge £</i>	<i>Installation</i>	<i>Removal</i>
0	547	146
50	1	0
60	1	1
80	0	1
100	3	0
120	6	0
130	12	0
150	12	0
180	0	13
200	1	1
250	9	0
Total	592	162

Source: Smaller LPG suppliers.

Recovery of outstanding costs

14. The major suppliers told us that any under-recovered tank installation costs were recovered through the price of LPG, or through other revenue streams such as standing charges. [S&C] said that its standing charges were only for maintenance, emergency and insurance costs and did not contribute to under-recovery of installation costs. Table 3 shows the estimated proportion of revenue from a new domestic customer which represents recovery of the cost of the tank and installation.

TABLE 3 Proportion of revenue which represents recovery of tank and installation costs

Recovery period	per cent			
	Calor	Flogas	Shell	BP
Year 1	[]
Year 2				
Year 3			⌘	
Year 4				

Source: LPG suppliers.

Note: [⌘] commented that the above table did not account for fixed costs, overheads and profit.

15. If switching costs were passed on in full to customers through switching charges, the disincentive to customer switching would be increased. On the other hand, the need to subsidise installation charges in order to induce switching may reduce suppliers' incentive to win customers. A smaller supplier told us that few regional suppliers were actively seeking new domestic business, because of the low potential return on investment under current switching practices.

Underground tanks

16. [⌘] told us that underground LPG tanks were introduced in 1992⁴ and had become more common since 2000, accounting for around [⌘] per cent of domestic bulk installations at present, although the extent to which this trend would continue was uncertain. In 2003, [⌘] increased its base of underground tank customers by almost [⌘], and underground tanks accounted for [⌘] of tanks installed by [⌘], and one-quarter of tanks installed by the big four, in that year. [⌘] told us it would only supply underground tanks in exceptional circumstances and for existing customers, and had installed only three in the first half of 2005.

17. [⌘] told us that the costs associated with uplifting an underground tank may be as much as £[⌘], and consisted of the costs of excavating the tank, backfilling the hole

⁴Shell believes they were introduced in 1989.

with a suitable backfill material, with extensive compacting to prevent subsidence, and landscaping the area (which may be carried out by the customer).⁵ [X] also told us it insisted on supervising the excavation process to ensure the tank is not damaged, and that this step was not included in the removal of an above-ground tank.

18. Some of the major suppliers report upfront costs for underground tanks of triple those for above-ground tanks.⁶ One reason for this is that many above-ground tanks installed in 2003 were refurbished tanks. Suppliers with a stock of used tanks face a lower upfront cost in starting to supply a customer; such a stock of underground tanks is unlikely to be held by any supplier in the foreseeable future. [X] told us that the prior need to uplift the tank (at an average cost of £[X]) increased the total cost to £[X] for an above-ground tank, although we note that the uplift cost is incurred regardless of whether the tank is re-used. [X] also said that by uplifting and refurbishing tanks, [X] avoided having to buy new tanks, and that therefore the opportunity cost of the refurbished tanks was somewhere between £[X] and £[X] depending on tank size. Here, we note that the opportunity cost of installing a refurbished tank is the price for which the supplier could sell that tank, rather than the price of a new tank. As there is little second-hand trade in tanks, with suppliers preferring to hold tanks in stock, the opportunity cost is difficult to determine.
19. Installation costs for underground tanks are also higher, although of a similar order of magnitude to those for above-ground tanks. We note that if companies require minimum contract periods to recover the initial costs of installing an above-ground tank (and in particular the cost of the tank), these figures suggest that a substantially longer period, or a higher upfront charge, should be required for an underground

⁵We note that most of these costs would not apply if another supplier's underground tank was to be installed in place of the one removed.

⁶[X]

tank. [X] told us that it requires five-year contract periods for underground tanks, rather than three-year contracts. Average installation charges in 2003 were substantially higher for underground tanks than for above-ground tanks (four times higher in the case of [X]) although somewhat lower than the actual cost to the supplier. [X] standard charge for removal of an underground tank is £[X], well above the £[X] standard charge for an above-ground tank, reflecting the higher cost of removal.

20. While underground tanks are considerably more expensive to install and remove, the impact on competition of the increased popularity of underground tanks is uncertain. The average LPG price charged to [X] customers with underground tanks in 2003 was broadly similar, and for [X] customers around ([X]) cheaper, than to those with above-ground tanks. [X] told us that its prices to customers did not distinguish between those with underground and overground tanks. It noted that a higher proportion of its customers with underground tanks would be 'new' and therefore on introductory prices. [X] told us that its lower price for LPG supplied to underground vessels [X]. Shell, which excluded metered estates from its response, told us that the price difference was due to the greater volume that could be supplied to underground tanks, a factor also mentioned by [X]. [X], although [X] charge was [X] more for an underground tank than an above-ground tank. [X] Flogas told us [X].

The switching process

21. The typical steps involved in switching suppliers are set out in Table 4. Having given notice of termination to the LPG supplier, the customer would usually have to monitor the level of gas in the tank to ensure it was as low as possible at the end of the period, but without running out of gas in the meantime. The new and outgoing LPG suppliers are required to cooperate in arranging the switch under the LPGA's Code of

Practice 26 and the LPGA policy statement, ensuring that arrangements are not unreasonably delayed, and completing the work within 14 days⁷. It is common practice for the new supplier to disconnect the old tank and set it aside when installing the new tank, so a delay in removing the old tank would not normally cause an interruption of LPG supply, although disconnection requires the approval of the outgoing supplier. [X] told us that this does not affect the customer's new LPG supply as the discarded tank will be placed in a suitable temporary location. We note that, depending on the availability of storage space on the property, customers may consider this an inconvenience. [X] told us that the new and outgoing supplier worked together to ensure that the switch took place in 24 hours, and usually within one working day. The process is similar for commercial customers. [X] did not accept that the process took four to five months, and told us that it allowed up to three months to complete the whole process. None of the major suppliers could provide us with details of how many of its former customers faced delays in removal of the tank. [X] told us that gas remaining in the tank had caused delays in some cases. [X] noted that 'in the very small number of cases where there is delay, this is often due to building or landscaping that may have taken place, or be in progress, preventing access to the tank'.

⁷[X] told us that this Code was subscribed to by all members of LPGA and generally observed by non-members, although we note that one major supplier [X] appeared to interpret the code very differently, commenting that "although the relevant provision...is not entirely clear, the 14 day period is intended to constitute a 'cooling off' period during which the customer is free to contract with the new supplier".

TABLE 4 Steps in the process of switching suppliers

<i>Step</i>	<i>Typical time</i>
1. Customer contacts alternative suppliers, obtains and compares quotes	1 week
2. Customer contracts with new supplier	
3. Customer notifies outgoing supplier in writing	3 months (Notice period)*
4. Run down gas in tank, ideally to below level for safe handling	3 months (During notice period)†
5. New supplier requests permission of outgoing supplier to move its tank	1–3 weeks
6. Outgoing supplier gives permission	(During notice period)
7. New supplier disconnects and moves outgoing supplier's tank	1–2 weeks
8. New supplier pumps over any gas remaining in the tank	(After notice period)
9. New supplier completes installation	Up to 3 weeks
10. Outgoing supplier arranges for collection of empty tank	(After notice period)

Source: LPG suppliers.

*[X]
†[X]

22. We considered whether customers were likely to face an additional switching cost in the loss of LPG (already purchased by the customer) remaining in the outgoing tank on removal. [X] told us that it was standard procedure to change the delivery status of an account to delivery on demand, rather than automatic top-up, when the account was terminated. Its policy for a customer termination was that no credit was given for any gas uplifted, although there were exceptions. Around one in four [X] customers leaving in 2003/2004 [X] received such a credit. Flogas told us that [X]. [X] may (with the customer's agreement) delay tank removal beyond the notice period to allow the customer to run down the gas in the tank. Flogas [X] while [X] charges [X] (only four [X] customers paid this charge in 2003). [X] Flogas told us that [X]. [X] told us it encouraged customers to use up their remaining gas during their notice period and that, if the customer was switching to a competing LPG supplier, any remaining LPG would be transferred to the new tank ([X] also has this facility).

23. The major suppliers told us that switching of tanks did not inconvenience the customer, particularly given the LPG Code of Practice requirements. We note that the question of what might be considered inconvenient, in the context of the potential benefits of switching tanks, is a relative and subjective one. Calor and Flogas

pointed out that the majority—two thirds—of respondents to the ORC survey who had switched found the process relatively straightforward. Calor told us that it sought to make the process easy in the hope that, in due course, the customer would revert. Data, from the ORC survey, about customers who switched supplier should be treated with caution.⁸ However we note that while most respondents who had switched did not find it difficult, a substantial minority (35 per cent) said that it was difficult to change suppliers—one in five switchers found it very difficult.

24. ORC asked customers to identify, from a list, reasons that had discouraged them from switching supplier. Inconvenience of tank uplift and installation was the second most common reason that would discourage or had discouraged customers from switching suppliers (mentioned without prompting by 17 per cent, and with prompting by 52 per cent), after the cost of tank uplift and installation.⁹ While cost and inconvenience were the most frequently identified, around half of respondents also identified uncertainty about what their contract allowed, cost penalties for cancelling the contract, and uncertainty about what the penalties were as reasons that had discouraged them from switching.

Contract terms

25. In considering whether to switch suppliers, a customer's expectations as to the cost of switching may differ from the actual switching costs in the market, depending on the information available to the customer. Only 8 per cent of respondents to our customer survey had recent experience of switching LPG supplier, and supplier data on customer switching rates also indicate that a small minority of customers will have had such experience. Other customers may have discussed the cost of switching

⁸Of the 1,012 customers surveyed, only around 60 had switched supplier (a further 20 reported switchers had in fact changed supplier as a result of a takeover). We note that this sample reported a level of switching charges well below the actual charges recorded by the major suppliers (62 per cent said that the cost of switching was less than £10).

⁹Calor noted that, without prompting, 26 per cent of respondents were unable to identify a reason for not switching, and only one in six gave cost of tank installation as a reason.

supplier with the sales representative, although sales staff have no obligation, or obvious incentive, to raise this point with new customers. In view of this, customer contracts are likely to be among the most immediately available information as to such costs (alternatively customers may contact their suppliers). The following provisions in the standard contracts of the four major suppliers relate to charges for tank uplift and credit for gas remaining in the tank upon uplift:

- (a) Calor (new contract¹⁰) (paragraph 8.6): 'We will not credit you for any gas in your tank at the time of uplift...The cost of uplifting the Tank is £120 (£450 in the case of a below ground tank including excavation...)'.
- (b) Calor (old contract) (paragraph 6): 'On determination of this Agreement and removal of the Vessels or Equipment a charge will be made for such removal and any credit given for the Gas in the Vessels(s) in accordance with Calor's policy in force at the time'.
- (c) Shell (paragraph 7.7) 'Upon termination of this Agreement the Customer shall forthwith...permit Shell and its agents or representatives to enter the premises and remove the bulk gas tank and any gas or other matter contained therein (ownership of which shall vest in Shell upon termination) and...shall pay all reasonable costs incurred by Shell in removing the bulk gas tank'.
- (d) BP's contract states [redacted].

26. The standard Flogas contract terms for domestic customers [redacted].

Minimum contract terms

27. Most suppliers in Great Britain offer LPG to domestic customers under an initial three-year or, less commonly, a five-year contract, after which either party can terminate on three months' notice. A substantial majority [redacted] of [redacted] customers are

¹⁰Calor's new contract covers around one in ten customers. Calor told us that the uplift fee was also displayed on the front page of the contract.

on rolling contracts, which require the customer to give three months' notice. [X] Discounts offered to established customers are often conditional on the customer signing a new minimum-term contract for exclusive supply, although [X] told us that its customers were not expected to re-sign contracts. [X]¹¹ told us that the standard way of confirming a price negotiation was to send the customer a new three-year contract, asking the customer to sign and return it. It said that the 'fresh' contract offered (inter alia) protection against price increases during the initial six-month period. Where a customer had not returned the contract, [X] said it considered that there was doubt as to whether the customer had agreed to a further three-year term and [X] 'would probably not push the point'.

28. [X] told us that 21 customers ended their contract during the initial three-year term in 2003. While such customers are liable for any resulting loss of profit to [X], none of the 21 customers were charged under this provision, owing to an administrative error. [X] said that [X] of its customers ended their contract before the agreed date and none were penalized. [X] was unable to provide a definitive answer but did not believe that any penalties had been charged. [X] customers on a fixed term are entitled to terminate early if the price per litre increases by more than [X] over any six-month period; [X] customers can do so if the price rises by over 2p per litre in a six-month period or under certain other conditions; [X]. Of the four major suppliers, only Calor's standard contract (paragraph 8.5) set out terms for customer termination of the contract before the end of the initial period, noting that 'If this Agreement is

¹¹[X] told us that it had no standard price and therefore did not offer 'discounts', although it did offer price reductions to individual customers.

¹⁴[X] noted that 'one can imagine situations in which there is almost no switching precisely because suppliers know that the risk of switching is high if their prices move out of line with their rivals, and so automatically match rivals' offers'. We note that if suppliers observe a low level of switching, whether because of high switching costs or because they match prices, they are likely to consider the risk of under-recovery small. In addition, our analysis of pricing does not support the view that suppliers lose business by pricing 'out of line' with others.

terminated by you before the end of the Minimum Period...we reserve the right to charge you for our resulting loss of profit, and also the cost of uplifting the tank...[exceptions].’ Flogas told us that [redacted].

29. The major suppliers mentioned the following advantages to customers of longer-term contracts:

- (a) Fixed entry price.
- (b) Smoothing of price increases.
- (c) Automatic refill.
- (d) Security of supply (particularly over initial period).
- (e) Budget plans and payment by direct debit.
- (f) A single supplier responsible for LPG supply, call-out, emergency services, and liable should any damage occur during delivery.
- (g) Efficiencies to supplier which are passed on in lower prices.

However, [redacted] noted that (c), (d), (e) and (f) would be available to customers regardless of whether they were on a fixed-term contract.

30. BP told us that [redacted]. We note that the low rate of switching among customers (including those who are beyond their initial contract period) suggests that the risk of under-recovery is small at present, albeit that it might arguably be slightly higher among new customers than it is among established customers if the initial minimum term did not apply.¹⁴

Notice periods

31. Almost all Calor domestic bulk customers are required to give three months (or 90 days) notice of termination. [redacted] Flogas told us that [redacted]. Three-month notice periods are standard for customers of [redacted], although both have told us they would be willing to reduce the length of the notice period. Suppliers told us that three-month notice

periods allow customers to 'run down' the gas in their tank so that the supplier does not have to empty the tank before removal. We note that depending on the customer's rate of LPG gas usage (which itself varies with the seasons) a customer may not use enough gas to empty the tank during the period, or may run out of gas before the end of the notice period and have to buy more gas from the outgoing supplier. In addition, when a customer is switching between LPG suppliers, any remaining gas in the old tank can be transferred to the new tank, so running down of the gas in the tank prior to uplift is not necessary. [X] told us that the three-month notice period also gave the customer time to consider any lower offer put forward by the existing supplier and to use this as a negotiation tool with the existing supplier. We note that, from the existing supplier's perspective, this could be seen as an additional opportunity to dissuade the customer from switching.

32. [X] contained a clause stating that "if following expiry of the minimum period you [the customer] feel that a third party can make (in total) a more competitive offering, you agree to give us the right to meet such offering or to make such proposals as are, in all the circumstances, equally competitive'. [X] told us that the objective of the clause was to make it clear to the customer that [X] would provide a competitive service at a competitive price, but since the clause might be misinterpreted, it would be dropped.

Metered estates

33. Table 5 provides data on the metered estate customers of the major suppliers. Such customers account for [X] per cent of [X] and [X] customer base. [X] customers are twice as likely to be metered.
34. Metered estate customers tend, individually, to use a lower volume of LPG than non-metered customers (around one-third less).

TABLE 5 Metered estate customers

	Calor (GB)	Calor (NI)	Flogas (GB)	Flogas (NI)	Shell	BP	All
Metered customers ('000)	[] [X] 9
All customers ('000)							
Metered customers share (%)							
Volume of LPG in 2003:							
Metered customers (m litres)				X] [X] 6
All customers (m litres)							
Metered customers share (%)							
Average LPG sales 2003:							
Metered customer (litres)							1,730
Non-metered customer (litres)							2,977

Source: LPG suppliers

35. We considered whether customers on metered estates might face a particular difficulty in that switching suppliers would require the agreement of other customers on the estate and/or the site owner. The major suppliers suggested that an individual household could switch to an alternative arrangement such as an individual tank, cylinders or alternative fuels such as oil. [X] told us that, in one metered estate it supplies, 30 out of 200 households had switched to alternative fuels. We have considered competition between bulk LPG and other forms of fuel supply¹⁵ and take the view that the supply of domestic bulk LPG is a distinct market, due to the generally limited scope among LPG customers to switch to other fuels in response to LPG price increases. As regards switching to an individual LPG tank, [X] told us that, since September 2003, 36 of its metered estate customers had switched in this way. However, we consider that obtaining LPG via an individual tank is in many cases likely to be an impossible or unattractive option for a household on a metered estate: the property may not have sufficient space for a bulk tank (or may be an apartment), and the greater expense to the supplier of delivering to a single household rather than an entire estate is likely to mean that the customer will be

¹⁵See Appendix E.

charged a higher price than might be available if the estate collectively switched to another supplier.

36. In practice, metered estate customers tend to receive a similar or slightly lower price for LPG than other customers (see Appendix I). The cost of supply is usually lower for metered estates than other customers, as the tanker can deliver a relatively large quantity of LPG in a single visit, and whether this lower cost is fully reflected in prices is uncertain. It is possible, therefore, that despite the comparability of prices competition in the supply of metered estates may face an additional barrier in the need for agreement between all customers on the estate before a switch can take place. If so, such a barrier might be seen as inherent to the supply of LPG to metered estates. [X] commented that metered estate customers who coordinated, for example through a residents association, exercised a degree of buyer power. In addition, we note that, if customers on an estate can agree to share the costs of switching (including non-monetary costs such as the time taken to shop around), the cost per household may be small (depending on the number of households and other factors such as tank size and whether the tank is above-ground or underground).

Indicators of switching costs

Switching rates

37. In practice, the extent of switching by domestic LPG users is very low. Table 6 shows the number of customers gained and lost by the major suppliers in 2003. On average new customers and outgoing customers represent, over a year, around 3 per cent each of the customer base. Among the 3 per cent of customers leaving the major suppliers in 2003, only a minority are switching to another LPG supplier (between one-sixth and one-third, depending on the number of 'unknowns' doing

so¹⁶) (see Table 7). [X] acknowledged that the amount of customer switching from one LPG supplier to another was limited.

38. [X] told us that the percentage of customers switching should be expressed as a percentage of those who could switch: a substantial proportion of customers were in fixed-term contracts and unable to switch, but received a discounted price in return. [X] estimated that around [X] of its customers were in fixed-term contracts [X]. Of these, [X] per cent were previously established customers who had entered the contract as a condition of negotiating a lower price; the remaining [X] per cent had either moved into a property on which a [X] tank was installed, or started using [X] as a new customer. Expressed as a percentage of those not in fixed contracts, [X] lost customers account for 5 per cent, rather than 3 per cent of the customer base. We note that fixed contracts are themselves a barrier to switching. [X].

TABLE 6 Proportion of customers starting and stopping in 2003

	<i>Calor</i>	<i>Flogas</i>	<i>Shell</i>	<i>BP</i>	<i>Major suppliers</i>
Customer base					
Gains			X		
Losses					
					<i>per cent</i>
Gains and losses as a proportion of customer base:					
Gains	[X]
Losses					

Source: LPG suppliers.

¹⁶The widespread observance of LPG CoP 26 suggests that cases where a switch is to another LPG supplier is not identified as such will be rare.

TABLE 7 Reasons for leaving LPG supplier, 2003

	<i>Calor</i>	<i>Flogas</i>	<i>Shell</i>	<i>BP</i>	<i>All switchers %</i>	
					<i>Major Suppliers</i>	
Heating oil	[]	32	
Different LPG supplier					17	
Premises vacated/no further use			✂			11
Natural gas						6
Other						19
Unknown						15
					<i>All customers %</i>	
Heating oil	[]	1.0	
Different LPG supplier					0.5	
Premises vacated			✂			0.3
Natural gas						0.2
Other						0.6
Unknown						0.5

Source: LPG suppliers.

Switching and pricing

39. We consider three aspects of pricing in the context of low switching rates:
- (a) customer response to supplier price changes;
 - (b) customer response to differences in average prices between suppliers; and
 - (c) customer response to introductory prices.

Supplier price changes

40. None of the main parties has carried out research into the price elasticity of demand of LPG customers. [✂] provided us with price and volume sales data from July 1999 to June 2004; at the monthly level, we were unable to identify any negative correlation between price and sales (for example, sales falling as a result of price rises in previous periods).

41. Calor told us that [✂].

Price differences between suppliers

42. The major suppliers have argued that few customers switch in response to price increases because customers are aware that changes in the price of LPG are driven by input prices (propane), which affect all suppliers. Around half of the respondents to the CC/ORC survey who had experienced a price increase in the past year believed that other suppliers had made similar increases, while most of the remainder did not know. We note that, in practice, the average prices of the major suppliers differ substantially, and that these price differences have been sustained over time. Furthermore, suppliers differ considerably in the timing and degree of their price changes. In a competitive market we would expect customers to switch away from the more expensive suppliers, or bargain prices down to the same level across suppliers.¹⁷

Introductory prices

43. A recent NERA discussion paper for the OFT¹⁸ notes that:

Instead of focusing on the rate of switching alone, we recommend [that] [w]hen firms can price discriminate then a large difference between the prices charged to old and new customers of the same firm can be taken as indicative of a market with switching costs.¹⁹

¹⁷[><] argued that this ignored the importance of non-price factors such as safety and reliability of supply. We have discussed these factors elsewhere and have seen no evidence that customers see suppliers as differentiated according to these factors, nor particularly that higher-priced suppliers are seen as safer or more reliable.

¹⁸Paragraph 1.9, *Switching costs, Economic Discussion Paper 5*, prepared by NERA for OFT and DTI. The paper does not necessarily represent the OFT's views.

¹⁹[><] commented that the text quoted was selective and partial. In particular it commented that the paragraph from which the quote was taken begins by noting that: 'Contrary perhaps to initial perceptions, the level of switching in a market is not necessarily a good indication of the presence or importance of switching costs. It is perfectly possible for there to be a low level of switching suppliers even if switching costs are low as for example, prices may adjust to pre-empt switching.' In this regard we note that we have looked more directly at barriers to switching in the present appendix, that the question of whether other evidence indicates switching costs motivates the following discussion, and that the question of whether prices adjust to pre-empt switching is discussed in Appendix I: Pricing (starting at paragraph 42). [><] also commented that the NERA study found switching costs do not necessarily make markets less competitive: we consider this issue in the present appendix (starting at paragraph 64); that levels of switching were not insignificant, which we consider in the present appendix (starting at paragraph 37); and that [><] sought to retain a balance between prices to new and established customers, which we consider in Appendix I: Pricing (see paragraph 12).

44. Annex 1 demonstrates that switching costs are substantial in relation to the potential savings from switching between suppliers, albeit that such savings are themselves substantial. Furthermore we note that that such savings—whether they exist because of differences between introductory prices and prices to established customers, or to differences between suppliers' average prices—are themselves, as NERA has noted, indicative of switching costs.²⁰ While offering low prices to attract new customers may be pro-competitive, the fact that this practice has not led many customers to seek such lower prices is suggestive of a lack of competition.
45. Differences in prices to new and old customers are described in the Appendix I: Pricing. Of the major suppliers, [X] offer lower prices to new customers than to their established customers.²¹ [X] told us that the difference between its standard and introductory price had risen from [X] in 2003 to [X] in 2005. [X] told us that the existence of different approaches suggests that switching costs are not so overwhelmingly high as to imply that charging higher prices to established customers is the most appropriate business model for the sale of LPG.
46. If significant price savings are available by switching to another supplier, and customers do not do so (or negotiate lower prices), possible reasons may be that:
- (a) they are prevented from doing so by high switching costs;
 - (b) they believe that the quality of service available from other suppliers is poorer than that from their present supplier;
 - (c) they lack comparative information on suppliers' prices (which may also be seen as a switching cost); and
 - (d) they are insensitive to prices.

²⁰[X] argued that different average prices could reflect other factors such as different cost bases of the suppliers due to different quality of supply. We have seen no evidence that higher-priced suppliers offer a higher quality service or are seen as doing so by customers.

²¹[X] commented of its introductory price, which is fixed for the first six months, that 'over time...these prices are aligned and there is no evidence of discrimination on price between new and established customers'.

We have discussed switching costs, and price negotiation is considered in the Appendix I. We now consider service quality, information, and price sensitivity in turn.

Service quality

47. The major suppliers told us that switching rates reflected customer satisfaction with the price and service they received. Customer surveys by suppliers tend to show high levels of satisfaction and this was largely confirmed by our own survey. Overall three-quarters of all customers were satisfied with their LPG supplier, although 14 per cent were dissatisfied (satisfaction levels varied significantly between suppliers). According to surveys commissioned by the suppliers, 81 per cent of Calor customers and [x] per cent of [x] customers said they were likely to recommend their supplier (a further [x] per cent of [x] customers would 'possibly' do so).

48. These results do not necessarily support the argument that the very low rate of switching between suppliers is due to customer satisfaction. Only 4 per cent of respondents to our survey thought that other suppliers offered a poorer service than their current supplier: 24 per cent thought other suppliers were as good or better, and the remaining 72 per cent did not express a view—Flogas argued that this could be because they were satisfied with their current supplier and saw no need to investigate others. Calor told us that in utility and fuel sectors customer satisfaction was generally high. LPG was a critical product and 'you have got to get it right'. This could suggest that any firm which has established a presence in the market has necessarily done so by providing a reliable service—which appears to be confirmed by the survey results mentioned above.

49. Respondents to our survey were less satisfied with the value for money they got from their suppliers—33 per cent were satisfied and 54 per cent dissatisfied.²² Again, there was variation between suppliers. Among the big four suppliers, customers of those which charge a higher average price (see Appendix I) appeared to express a higher level of dissatisfaction (although the difference was only significant in the case of one supplier). Customers of three of the major suppliers were significantly more likely to be dissatisfied with value for money than customers of smaller suppliers. Suppliers argued that customer dissatisfaction arose from recent increases in wholesale propane prices, which affected all LPG suppliers and therefore did not lead to switching. They also noted that 46 per cent of respondents who had experienced price increases thought that other suppliers had made similar increases, and argued that as a result they would have less incentive to switch in response to a price rise. We note that 36 per cent of respondents thought that other suppliers offered a lower price. However, even among those who described themselves as dissatisfied with their supplier overall had never considered switching.
50. We considered the relative importance customers attach to price and service quality. Calor quoted a recent report from Datamonitor noting that ‘Cost is crucial to utilities customers. While service, brand and choice are influential, Datamonitor analysis found that 64 per cent of customers rate price as the priority when choosing a utility, compared with 20 per cent prioritizing service and 10 per cent prioritizing brand’. Calor said that, in contrast, its surveys had shown safety to be the main factor in the LPG supply relationship. However, this was not supported by our own survey: only 5 per cent of respondents said that safety was the main factor they would think about if having to change supplier,²³ whereas 78 per cent said price of LPG was the main

²²[<] commented that ‘such expressions do not necessarily equate to a feeling by customers that their LPG suppliers are overcharging them’.

²³[<] commented that there was a substantial difference between asking a customer about the most important aspect of the present relationship with their supplier, and asking what their priorities are when considering changing supplier. [<] commented that 18 per cent of customers in its brand tracking survey were classified as ‘safety first’.

factor, 15 per cent mentioned customer service and 12 per cent mentioned reliability. Similarly, when asked what would make them consider switching, respondents were far more likely to name price increases (42 per cent) than poor service quality (8 per cent). [X] commented that, if prompted, customers would have been likely to say that safety standards were one of the main factors they would consider if switching to a new supplier.

51. In considering whether customers have a preference for their current supplier's service over that available from other suppliers, we note that almost half of the respondents to our survey said that their current supplier was already set up to the property when they moved in, was the only supplier in the area, or had taken over their previous supplier. In each of these circumstances we note that there is a large degree of passivity in the customer's choice of supplier. Calor told us that the assertion that customers began using the supplier by default when they moved into a new home was incorrect. It said that such a person was under no contractual obligation, that Calor would treat such a person as a potential new customer, sending a representative to visit and requiring a new contract to be signed, and that it would uplift the tank without charge. [X] made similar comments. However, the fact that more than one-third of customers began their supply relationship in this way, in contrast to the one in ten who did so by switching from another supplier, suggests that the decision may often be driven more by convenience and cost than by a preference for the particular supplier.

52. [X] provided us with presentation slides from a qualitative survey of LPG customers (including non-[X] customers), dated December 2004, which concludes that:

From a strategic point of view there are three characteristics of the market that are important: consumers are very unaware of competitor service; service expectations are very low; the cost/hassle of switching is

significant inertia (sic). From [X] strategic point of view, service is mainly about retention as switching is very unlikely based on service alone.

Information on pricing

53. Two-thirds of the respondents to our customer survey were able to tell us how much they paid for LPG (some had a recent invoice to hand), and 95 per cent knew whether their prices had changed in the past year.
54. Customer awareness of alternative local suppliers is low. More than half (between 55 per cent and 75 per cent) of those responding to our survey were unable to name any other suppliers of LPG in their area. Even more (63 per cent) did not know how the price of gas from other suppliers compared with the price they were paying. Nine out of ten (91 per cent) could not recall ever having been approached by another LPG supplier ('approach' was explained to include a telephone call or mail). [X] commented that customers tended to discount promotional approaches unless they were actively considering themselves in the market.
55. Identifying local suppliers of LPG does not appear difficult, although obtaining quotes may be slightly more so. Suppliers do not publish prices for domestic bulk LPG. Suppliers told us that they quoted indicative prices to prospective customers who contacted them; confirmation of the price being subject to a site visit. But several customers who wrote to us found suppliers unwilling to quote for business (such customers should not, of course, be assumed to be representative of all customers²⁴).

²⁴[X] told us that there may be legitimate reasons for being unwilling to quote for business, for example if the person was resident in a very remote part of Scotland.

56. Suppliers who offered introductory prices told us that they also informed customers of their current standard prices at the start of the contract. However, suppliers do not generally commit to future (non-introductory) prices, because future prices depend on the future cost of propane (see below).
57. Only 15 per cent of respondents to our survey had tried to compare the costs and benefits of alternative LPG suppliers. Among those who had tried, 63 per cent had been able easily to obtain all the information they needed to compare alternative suppliers, and 36 per cent had not. When asked whether they were lacking any information needed to compare suppliers, most respondents said either 'no' or that they had never thought about it. No particular information was seen as lacking by a large proportion of respondents, although 11 per cent mentioned not knowing about other suppliers, 7 per cent mentioned costs of other suppliers, and 6 per cent mentioned tank removal fees.
58. [redacted] told us that a qualitative survey of its customers from December 2004 illustrated that in 'close communities', customers had an awareness of prices paid by other customers and dissatisfaction at price differentials. It supported this with a quote from a customer in St Austell that 'the old lady next door was being charged 35p a litre while I was being charged 29p'. We looked at prices to [redacted] customers in the St Austell area as of 1 January 2004 and found that, across 12 areas where [redacted] had at least five customers, the average difference between the highest and lowest prices charged was 12 per cent. The data showed very little correlation between prices and volume of LPG purchased. A presentation slide from the [redacted] survey describes LPG customers as 'often very uninformed about competitors—little awareness apart from in small close knit communities'. [redacted] commented that it remained of the view that in close knit communities customers had an awareness of their neighbours' prices.

59. Changing prices due to variation in the cost of propane may increase the difficulty of comparing prices between suppliers, compared with an industry in which prices are more stable. Calor told us that customer awareness of changes in oil-related product costs (especially crude oil and petrol) is normally high as they are regularly featured in the media, ie newspapers and television or at the petrol forecourt. We note that this does not amount to an understanding of how competing LPG price offers in the retail market will change over time. No UK supplier offers domestic customers a price linked to propane costs.

Price sensitivity

60. Strictly, price sensitivity will depend on the ability of customers to switch or to reduce their consumption of products. Here, we consider whether the low rate of switching may be a reflection, in part, of customer attitudes.
61. Calor told us that its regular customer satisfaction surveys show that customers have a high sensitivity and awareness of price. However, it recently commissioned qualitative research into pricing which noted that 'For those that can afford it, price is unimportant in determining choice of fuel *and* choice of supplier'. A recent marketing document produced by [redacted] notes of domestic customers that 'their choice of LPG as a fuel (rather than oil, or solid fuel) indicates a willingness to pay a premium for convenience and comfort'. In contrast, four in ten respondents to the ORC survey said that LPG had no advantage over other fuel types.
62. Flogas UK told us that [redacted]. This was supported by the CC/ORC customer survey in which 78 per cent named price as a main factor they would think about if having to change. However, Shell told us that customer gains rarely reflected movements in (short term) prices. In relation to loss of customers, whilst price did have an effect,

actual customer loss was usually a result of accumulated grievances over time, rather than just being a function of a single price movement.

63. Shell told us that overall the level of involvement of LPG users in the choice of LPG was low and mostly convenience driven, noting that 'From data relating to other commodities, eg natural gas and electricity, it is clear that there is generally significant customer inertia, to the extent that some customers remain with their existing supplier even when aware that they could get a lower price from a new (or even existing) supplier'.

Effect of switching costs on competition and entry

64. The effect of a switching cost on competition may be of greater magnitude than the switching cost itself: in theory, even a small switching cost could enable suppliers to price as they would in the absence of competition. As an illustration, consider a market with several suppliers, and in which a price of **P** would prevail if the market was perfectly competitive. Suppose that customers face a cost **S** in switching between suppliers. Other things being equal, customers will be willing to pay a premium of up to **S** above the competitive price **P** rather than switch to another supplier, so their current supplier can charge **P + S** without causing the customer to switch. However, if firms are symmetric and charge a uniform price,²⁵ the best price the customer can get elsewhere will be **P + S**, and the customer will have to incur a switching cost of **S** to obtain this price. Therefore the current supplier will be able to charge up to **P + 2S**, as will alternative suppliers. As this will also be the best price available elsewhere, the current supplier can increase prices further. The equilibrium outcome is that all suppliers will charge the monopoly price, regardless of the size of **S**.

²⁵Major suppliers, in commenting on this section, have noted that the assumption of a uniform price does not apply to the supply of LPG (Northern Ireland is an exception to this). However, we consider the effects of relaxing this assumption in the following paragraphs.

65. This kind of model depends on a number of assumptions which may not apply in the LPG market, and which we now consider. Arguably the most important of these is that a supplier charges all customers the same price. If a supplier could charge its existing customers the monopoly price, but charge new customers the competitive price **P**, this would be the prevailing price in the market—ie the price available elsewhere to a customer wishing to switch, and no supplier could charge more than **P + S** without incurring switching. Indeed, suppliers may even subsidize switching costs in order to win customers (as appears to occur to some extent in the LPG market—see paragraph 7), though such subsidies would normally be recouped over the course of the supply arrangement.
66. Another way of looking at this is that suppliers are more willing to cut prices aggressively to win business if they can do so without cutting prices to their existing customer base. However, if firms are symmetrical, this customer base will be under threat from other firms which, similarly, are able to offer lower introductory prices. In this circumstance, price discrimination, in the form of lower introductory prices, can produce a competitive outcome even in the presence of switching costs.
67. Major suppliers charge their customers a range of different prices in Great Britain. Considerable differences exist between the highest and lowest prices charged, which can not be fully explained by differences in the cost of supplying different customers.
68. Clearly, then, LPG suppliers have some scope to vary their prices according to the price sensitivity of the customer. The fact that [S&K] offer lower prices to new customers than to established customers is further evidence of this.²⁶ Equally,

²⁶[S&K] argued that this statement assumed that in setting its introductory price [S&K] calculation was simply against other suppliers, whereas in fact it was influenced by other factors such as heating oil prices. However, we note that, whatever the suppliers' incentive to offer a lower introductory price, the fact that customers do not switch regularly to avail themselves of such introductory prices is indicative of switching costs (unless it can be explained by other factors which we consider elsewhere in the present appendix).

however, it is clear that a majority of customers pay significantly more than the lowest available price, while switching, and threatening to switch, remain at a very low level. These features of the market tend to suggest either that switching costs are high in absolute terms (ie $P + S$ is high) or that some other feature of the market, such as customer inertia, an information problem, a perception that other suppliers do not offer as good a service, or failure by LPG suppliers to market their services to each others' customers, is preventing an outcome in which prices to a firm's established customer base are constrained by prices offered to this customer base by other suppliers.²⁷

69. Another possible explanation is that price discrimination is not perfect. NERA (ibid, p 36) notes that:

...in reality price discrimination is rarely perfect. Firms may be unable to fully exploit all the gains from their 'locked-in' consumers and some of their old customers may request to be switched to any special tariff offered to new customers. The discrepancy between rates offered to new and old customers cannot be too wide or the firm may offend its old customers. As a result, many of the dynamics seen under uniform pricing will still exist under imperfect price discrimination.

70. Major suppliers have told us that they need to maintain consistency between prices to different customers. [X] said that its standard prices were maintained at a level relative to others' entry prices to deter switching. However, we have not seen convincing evidence that price differences are strongly constrained by the need for consistency. Furthermore, despite any such constraints, significant savings are

²⁷[X] commented that customer satisfaction with existing supplier was another factor which deterred switching. Further to our previous discussion of customer satisfaction, we note that customer satisfaction does not explain why a customer who believed the same service was available from another supplier at a significantly lower price would not switch.

available to a substantial proportion of customers by switching.²⁸ As such, it does not appear that imperfection of price discrimination is in itself sufficient to explain the phenomenon that many customers are not paying the lowest available price.

71. In practice, the low rate of switching and the observed price differences are likely to be due to all of the factors described above, and the interaction between them.
72. Another theoretical argument is that with switching costs, firms may price above cost to established customers, but price below cost in order to gain them, resulting in pricing at cost over the lifetime of the product. In the case of LPG, introductory prices are indeed below average prices for some suppliers (although we have seen no evidence that they are below cost), but they are available only for a relatively short period (one to three years), while customer relationships are very long (70 per cent of [redacted] delivery points have been in place since 1996²⁹). The number of new customers entering the market in any one year is small relative to the market, and these customers do not invariably receive the lowest available price.³⁰
73. The theoretical effect of high switching costs on market entry and expansion is uncertain. On the one hand, an incumbent firm with a large number of existing customers will be less willing to respond aggressively to entry if this entails lowering prices to both marginal and non-marginal customers. To this extent switching costs can potentially make entry easier. However, this effect is likely to be weaker with price discrimination. In practice, LPG suppliers usually respond with lower price offers when a customer threatens to switch. Under these circumstances switching costs can be a barrier to suppliers winning new customers as, even if they undercut

²⁸See Annex 1: for example, any customer of [redacted] who paid the average price or above, and consumed the typical volume or above, could make substantial savings by switching to [redacted].

²⁹[redacted] commented that in a significant number of cases the customer will have changed—ie a new household will have moved in, but [redacted] will have continued to supply LPG to the property.

³⁰[redacted] commented that all their new customers would have the introductory price.

the incumbent's price, it may be more attractive for the customer to stay with their existing supplier and avoid switching costs.

Costs and savings from switching

1. Both Calor and [redacted] provided us with examples of the benefits of customer switching, illustrating that customers had an economic incentive to switch suppliers, and that the direct cost borne by customers in relation to tank removal and installation was modest compared with the potential savings from switching. The purpose of this annex is to calculate the likely monetary costs and savings to a typical customer switching between the big four suppliers.
2. A variety of measures of the switching cost were available—standard charges, average charges to those who paid such a charge, or charges averaged across all customers who switched. Of these three measures, the third tends to be the most conservative—ie giving the lowest measure of switching costs—and this is the measure we have used in the following calculations.³¹ However, we note that a customer considering switching would not know the average charge, and may not know the probability that the charge will be waived. Customers are arguably more likely to know the standard charge—whether from their contract or from sales representatives. We also note that average charges are based on all removals and installations, a majority of which will not be customers switching between suppliers. The effect of this is uncertain: new-to-LPG customers will tend to have a slightly wider choice of suppliers (for example, if there are four in an area, a new user will have a choice of four, whereas a switcher will have only three alternatives to the present supplier) but may also have less experience of the market; as regards

³¹[redacted] commented that the following calculation used industry average charges, but that its own analysis, based on [redacted] data, showed that the net financial benefit was relatively modest for customers with a typical volume consumption. [redacted] submitted that the economic incentive for switching was not as significant as suggested in the following calculation, and that in practice service failure by the supplier may be a bigger issue for the customer and a more important trigger for switching. We note that our analysis is based not on an industry average, but on averages for each of the four major suppliers, and that the net financial benefit depends on both savings available and switching costs. In addition, we note that our purpose here is not to identify triggers for switching, but to calculate the costs and savings available to customers (who in most cases do *not* switch).

installation charges, a customer switching to another supplier, and relying on the present supplier to cooperate in the switch-over process may be less likely to withhold payment of removal charges than one who is vacating a property.

3. Typical installation and removal charges when switching from one of the four major suppliers to another one of the four are shown in Table 1, based on average charges to all customers in 2003.³²

TABLE 1 Installation and removal charges

From:	To: £			
	Calor	Flogas	Shell	BP
Calor	<div style="font-size: 2em;">(</div> <div style="display: inline-block; text-align: center; vertical-align: middle;"> </div> <div style="font-size: 2em;">)</div>			
Flogas				
Shell				
BP				

Source: CC, based on data from major suppliers.

4. We compared switching costs with the potential savings available from switching supplier. The four major suppliers provided us with average prices, in 2003, to customers they had started supplying in 2003, in 2002, and in previous years respectively. However it appears that all customers who start using a supplier do not necessarily receive the suppliers' standard introductory prices. We assumed for the purposes of our calculation that a customer considering switching would receive a standard introductory price. In particular, we assumed that:

- (a) Customers switching to Calor at the start of 2003 would have expected to receive a price of [X].

³²[X] told us that it did not, and had not historically charged for tank installation. [X] said that a domestic customer seeking to switch would not now pay an installation charge. We have used 2003 as a snapshot of the market but note that company policies and other factors can change over time, affecting the level of switching costs. [X] told us that, because gas could be transferred to the new tank, customers would pay at most the lower removal charge of £[X], and this is the figure we have used.

- (b) Customers switching to Flogas at the start of 2003 would have expected to receive [X].
- (c) Customers switching to Shell at the start of 2003 would have expected to achieve [X].
- (d) Customers switching to BP at the start of 2003 would have expected to receive a price of [X].

5. Total savings for switching, per litre consumed annually, are shown in Table 2. For example, a switcher who consumed 3,000 litres a year, and who saved 5 ppl in the first year following a switch, 3 ppl in the second year, and 2 ppl in the third year, would save a total of £300 over the three years, equivalent to 10p for every litre consumed annually (assuming a constant volume consumption). We apply a discount rate³³ of 3.5 per cent a year. For simplicity we also assume zero inflation in LPG price and a constant level of consumption in the first two years following a switch.³⁴ Total savings, over three years, for a customer with a typical annual consumption (3,000 litres) are shown in Table 3.

TABLE 2 Savings per litre consumed annually

From:	To:		ppl	
From	Calor	Flogas	Shell	BP
Calor				
Flogas		X		
Shell				
BP				

Source: CC, based on data from major suppliers.

³³Treasury Green Book, January 2003. [X] questioned the use of a discount, saying it assumed that the average customer was not that sophisticated. We note that, while customers may be unlikely to apply a discount rate, they will tend to value immediate savings more than future savings.

³⁴Flogas pointed out that the price of LPG is far from being stable, which can make price comparisons difficult, and that demand (the customer's requirement for LPG) can vary depending on weather, making year on year comparisons difficult. It said that as a result the analysis contained in this paper was of very limited value in attempting to understand the behaviour of domestic customers for LPG. We note that these considerations are likely to increase the barriers to switching in response to a price difference: if customers have difficulty comparing price differences, they may be less likely to respond to such differences. Flogas noted that these factors were intrinsic to the supply of LPG.

and established customers is due respectively to switching costs and to a preference among customers for a particular supplier, for which they are willing to pay a higher price. However, it appears from the above analysis that the typical customer could reasonably expect to face switching costs which are significant, and in some cases prohibitive, in relation to the available savings. The inconvenience or expected inconvenience of arranging the changeover of tanks is likely to provide a considerable additional deterrent, as evidenced by responses to the ORC customer survey, where inconvenience was identified by most customers as having discouraged them from switching and, among the small number who had switched supplier, one in three had found the process difficult.