October 1999

Prepayment Meters

A Consultation Document

Contents

1. Introduction

This Document

1.1 This document sets out the various steps that Ofgem has taken and expects to take in relation to prepayment metering and prepayment meter customers in the gas and electricity markets.

1.2 It considers the identity of prepayment meter customers and the particular issues they face in purchasing electricity and gas, including the issues surrounding debt and self disconnection. It considers the services provided by the industry to prepayment meter customers and the scope for improvement in the present position.

1.3 The document also reviews the prices charged by suppliers in respect of prepayment meter customers. It discusses the impact of competition on prepayment customers and future prospects. Finally it reports Ofgem's conclusions on the present review of electricity prepayment meter charges by the Public Electricity Suppliers (PESs). In each case the document sets out the steps that Ofgem is taking to address the issues raised.

Background

1.4 This document complements two major arms of present activity by Ofgem. First, the supply and distribution price controls on the (PESs) and second, the Social Action Plan.

1.5 On price controls we have published proposals for the distribution price control[1] These are expected to be finalised in November and will include specific provision on meter charges to suppliers of prepayment meter customers. We have also published supply price control proposals[2] under which we propose continued regulation of the prices charged by PESs for prepayment meter customers. To support this work OFFER appointed consultants (Ernst & Young) to review the PESs' costs in respect of prepayment metering.

[1] Review of Public Electricity Suppliers 1998 to 2000: Distribution Price Control Review Draft Proposals: August 1999
[2] Review of Public Electricity Suppliers 1998 to 2000: Supply Price Control Review Initial Proposals: October 1999

1.6 Under the Social Action Plan Ofgem has proposed a range of actions designed to assist prepayment meter customers. We have also been considering the development of competition in both the electricity and gas markets and its impact on prepayment meter customers.

1.7 This document brings together the various strands of Ofgem's work in order that customer groups, suppliers and other interested parties can review and comment on the overall package of measures Ofgem is proposing.

Structure of Document

1.8 The chapters in this consultation document are structured in the following way:

- Chapter 2 sets out information on the identity and number of prepayment meter customers.
- Chapter 3 describes how the various prepayment meter technologies work and the availability of vending outlets for customers.
- Chapter 4 describes the service issues associated with prepayment metering and considers the problem of self disconnection.
- Chapter 5 reviews the prices on offer to prepayment meter customers and describes the impact of the competitive market.
- Chapter 6 considers the costs incurred in providing prepayment metering and proposes changes to present pricing arrangements in electricity.
- Chapter 7 summarises the issues raised and Ofgem's proposals.

Comments Invited

1.9 Comments are invited on the issues raised in the document and in particular on Ofgem's proposals.

1.10 It would be helpful to receive your reply by Friday 12 November 1999. Responses should be sent to:

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It is open to respondents to mark all or part of their responses as confidential. However, we would prefer it if, as far as possible, responses were provided in a form that can be placed in the Ofgem library. If you have any queries concerning this document Graham Jones (0121 456 6239) or Dave Barnes (0171 932 1634) would be pleased to help.

2. Prepayment Meter Customers

2.1 The number of prepayment meter customers in both gas and electricity has increased significantly over the past eight years.

Table 1 - Numbers Of Prepayment Meters

	Electricity		Gas	
Year ending December	'000	% Change 1998 on 1991	'000	% Change 1998 on 1991
1991	1,153		736	
1995	3,232		850	
1998	3,704	+221	1427	+94

Note: Numbers are rounded to the nearest thousand. At the end of September 1999 the number of Gas Prepayment Meter Customers was 1,561,303, an increase of 112% on 1991. At the end of March 1999, the number of electricity prepayment meter customers had fallen to 3,681,540.

2.2 This growth in prepayment meter customers does not appear to be customer demand led, but rather reflects changes in suppliers' policies. There is not a direct link with disconnections for non-payment. Whilst disconnections in electricity have virtually been eradicated, those in gas, although remaining at a generally low level, have increased by 59 per cent during the period.

Table 2 - Numbers Of Domestic Customers Disconnected for Debt

	Electricity		Gas	
Year ending December	'000	% Change 1998 on 1991	'000	% Change 1998 on 1991
1991	48		18.6	
1995	0.8		14.5	
1998	0.4	-99.2	29.5	+59

2.3 Comparative data available in the electricity market suggests that social issues are not a driving force in determining the percentage of a supplier's customers using prepayment meters. Table 3 shows the regional breakdown of prepayment meter usage, regular cash payment plans, direct debit and quarterly billing. The table also includes a social index constructed by comparing the relative rates of unemployment, long term unemployment, housing benefit recipients, socio economic groups 4 and 5 and disposable incomes in each area. The data is historic and subject to some error due to allocation of regional data to PES areas. However, it gives an effective broad picture of the relative degree of deprivation by PES area. Under the index 1.00 represents the national average, with higher scores representing the more deprived areas of the country.

2.4 The table suggests that prepayment meter (PPM) usage plus usage of regular cash payment plans is a better fit to the social conditions of the area supplied than either PPM or cash plans on their own. The PES areas with the greatest level of deprivation (Northern, ScottishPower, Yorkshire, Manweb and Swalec) all have above average levels of PPM plus cash payment plan customers. Conversely, the levels in the more affluent PES areas (Southern, Seeboard, Eastern and SWEB) are all below average. It is also relevant to note that the overall proportion of PPM plus cash plan customers in the gas and electricity markets is close, although PPM use in gas is less that half that in electricity.

Table 3. Payment Arrangements: Percentage of Domestic Customers March 1999

	Direct Debit	Quarterly Credit	PPM	Cash Plans	PPM + Cash	Social Index
Eastern	36.1	48.8	11.2	3.9	15.1	0.56
East Midlands	38.1	45.9	12.8	3.2	16.0	0.86
London	25.3	50.7	22.2	1.8	24.0	0.97
Manweb	28.8	45.8	22.4	3.0	25.4	1.37
Midlands	33.3	44.4	16.1	6.1	22.2	1.19
Northern	47.7	22.8	13.8	15.7	29.5	1.89
NORWEB	37.1	44.5	13.0	5.3	18.3	1.16
SEEBOARD	39.5	46.9	11.8	1.8	13.6	0.48
Southern	43.7	42.6	12.4	1.3	13.7	0.38
SWALEC	31.8	35.3	18.2	14.8	33.0	1.26
South Western	32.7	48.2	17.2	2.0	19.2	0.63
Yorkshire	32.2	42.1	13.3	12.4	25.7	1.46
Hydro-Electric	27.4	44.3	24.5	3.8	28.3	0.91
ScottishPower	23.6	40.5	23.0	12.9	35.9	1.56
Averages:						
Electricity	34.7	44.1	15.6	5.7	21.2	1.00
Gas	43.0	34.0	7.0	12.0	19.0	1.00

Sources: Company data monitored by Ofgem. Social index constructed by Ofgem from published government data.

2.5 Prepayment meter usage is concentrated amongst less well off households. Over 80 per cent of prepayment meter customers come from social classes C2DE. However, the majority of class D and E customers use other payment methods (this is particularly true in the gas market). Prepayment meter usage is also relatively infrequent amongst customers in receipt of state pensions (12 per cent in electricity and only 3 per cent in gas): far more of these customers use direct debit. Even in electricity, where the extent of prepayment meter usage is greatest, only about a half of customers receiving benefits, with an income below £5,000, or who are single parent families, use prepayment meters. In gas only 17 per cent of those gas customers who receive benefits use prepayment meters, whilst 23 per cent use direct debit. The full figures are given in Table 4. Even when cash plans and prepayment meters are added together methods of payment remain a poor proxy for fuel poverty.

Table 4 - Payment Method and Customer Type

A. Electricity

	Direct Debit or standing order	Quarterly cash / cheque	Prepayment meter	Regular cash scheme	Budget Plan	% of total sample
i) % in category using payment method:	(432)	(320)	(295)	(39)	(69)	
All (1212)	33	29	25	3	6	100
Social class E (409)	8	27	46	4	9	15
One parent families (32)	17	17	47	6	12	7
HH income under £5k per year (173)	10	25	46	6	7	10
Receiving benefits (455)	13	21	45	4	12	27
Difficulty paying (472)	24	25	37	4	6	38
State pension only (201)	24	38	12	4	10	11
No bank/building society account (201)	0	17	59	5	11	12
Poor housing (62)	16	20	51	3	10	4
ii) % of payment method by class:						
Social class AB	29	24	2	0	4	17
Social class C1	31	20	17	15	34	24
Social class C2	29	27	31	44	18	29
Social class DE	12	29	50	41	44	30

B. Gas

i) % in category using payment method:	(1081)	(817)	(176)	(339)	
All (2511)	43	34	7	12	100
Social class DE (917)	25	36	14	20	30
Receiving benefits (672)	23	33	17	21	24
State Pension only (383)	34	46	3	13	16
No bank/building society account (217)	-	30	31	30	7
ii) % of payment method by class:					
Social class AB	27	16	2	7	19
Social class C1	30	22	13	16	24
Social class C2	26	32	22	27	28
Social class DE	17	31	63	49	30

Source: 'Electricity Competition Review', Research Study conducted for OFFER by MORI;
Report published June 1999.
Gas Competition Review, MORI, November 1998, and
'Customer Characteristics by Payment Method', Research Study conducted for Ofgas by MORI,
December 1998
Details of the two MORI research projects are set out at Appendix One

2.6 Many PPMs are installed in association with debt recovery. British Gas Trading (BGT) estimates that 80 per cent of its PPMs were originally installed for this reason. In electricity, companies report a similar picture. PESs report installing nearly 100,000

prepayment meters during the six months between October 1998 to March 1999 (a reduction of some 20 per cent on the number of installations in the same period in the previous year). During the same period the total number of prepayment meters actually fell overall by some 41,000, suggesting that about 140,000 customers moved from prepayment meter to other payment options. On an annual basis this suggests that about one in twelve PPM customers switch to another payment method each year.

2.7 Typically, PPMs are set to collect debt over a period of a year (the average for the electricity companies is about 60 weeks, with debts recovered on average at the rate of about £3.20 a week). Company data quality in this area is mixed, so these results need to be treated with some caution, but this suggests that, when PPMs are installed for debt recovery, that debt amounts to about £190 (or about two thirds of a standard domestic credit customer's average annual bill). This suggests that by the time a prepayment meter is installed for debt recovery more than two quarters' debt has built up.

2.8 Although debt collection may have been an important factor in the original decision to install the meter, most PPMs are not presently collecting debts. On the basis of the previous figures, only about 250,000 PPM customers in electricity are presently re-paying debt (about 7 per cent of the total – the MORI study reported that 4 per cent of PPM customers said that they had a debt that was more than 6 months old being collected on their meter). Evidence from the MORI research confirms that whilst payment problems and budgeting were major reasons for PPM installation, many customers reported finding them installed when they moved in. The results are summarised in Table 5. Although customers reported asking for prepayment meters this may mask circumstances where customers had to choose between prepayment, disconnection or large cash payments to clear debts.

Table 5 Reasons for Obtaining an Electricity Prepayment Meter

	%
It was there when I moved in	43
I asked for one because I had difficulty paying my bills	24
I asked for one for some other reason	19
The company insisted on installing it because we were in arrears	3
The company insisted on installing it for some other reason	2

Base: All PPM customers (295)

Source : Electricity Competition Review ; Research Study Conducted for OFFER by MORI; report published June 1999.

3. Prepayment Meter Technology

3.1 There are three basic prepayment meter technologies in electricity (smart card, key and token) and one in gas (smart card or Quantum). Coin meters have largely been phased out.

3.2 The following table shows the use of the PPM technologies in the different PES areas and by gas suppliers.

Table 6: PPM Technology Employed by PESs/Gas Suppliers

	Smart	Key	Token	Quantum
Eastern		√	√	
East Midlands			√	
London		√		
Manweb			√	
Midlands	√		√	
Northern		√		
NORWEB	√		√	
SEEBOARD		√		
Southern		√		
SWALEC			√	
South Western		√		
Yorkshire			√	
Hydro-Electric			√	
Scottish Power			√	
Gas Suppliers				√

3.3 In the three PES areas where more than one technology is used, there are broadly equal numbers of meters installed with each.

How the prepayment meter system works from the customer's perspective

3.4 All PPM systems require customers to pre-purchase electricity or gas at a vendor outlet. The exception is that all systems provide a limited amount of emergency credit, for example to enable customers to have access to supply overnight, for which customers must pay after the electricity or gas has been used.

3.5 A customer with a key card or smart card is issued with a key or card by the electricity or gas supplier. The customer needs to bring to the outlet the key or card which identifies them and their account. The key or card is 'charged' at the vending outlet. When the customer inserts the key or smart card into their meter they obtain credit to use electricity or gas.

3.6 A customer with a token meter receives a paper 'token' with a magnetic strip with the amount of electricity they have purchased decoded on it. The customer inserts the token into their meter to obtain credit to use electricity.

Token meter

3.7 Token meters employ relatively simple, well established technology. They have the following operational implications:

- A token does not provide any information about a customer or an account.
- A token can be used in any token meter; consequently they are susceptible to fraud, theft and other forms of misuse.
- Field staff have to read token meters to enable the PES to obtain information about consumption levels. The manual reads also enable the company to reconcile the amount used with the amount purchased. Sometimes differences can arise as a result of the timing of the purchase, equipment failure, fraud or misuse of cards.
- Field staff have to visit customer premises to reset the meter when tariff rates have been changed. These visits are often carried out as part of a regular cycle, which can delay the adjustment of the meter. For these or other reasons, reading the meter may reveal a discrepancy between the amount of electricity used and that paid for.

- Field staff have to visit customer premises to programme debt onto these prepayment meters, and to reset them again when the debt is paid off.

- In the event that the meter's emergency credit is used up, the customer's supply of electricity is cut off. In most cases, the full amount of any emergency credit must be paid before the supply is restored. If the customer's supply is cut off for an extended period, the customer may accumulate standing charge arrears which may also have to be paid off before supply is restored. Similarly, customers who were paying off debt through the meter may also fall behind with their repayments via the meter. The customer may also have to pay off these arrears before supply is restored.

Key meter

3.8 The key meter is technically more sophisticated than the token meter. It is only manufactured by Schlumberger. It allows the PES, via the key and infrastructure, to receive information from the customer's meter and to send information to it – enabling the company to reset the meter remotely.

3.9 Key meters involve the following operational implications.

- The key is programmed only to work in the customer's meter. It cannot be used to obtain electricity from another customer's meter, which discourages theft, fraud and other forms of misuse such as lending a card for another customer to obtain electricity from their meter.

- There is no need for field staff to visit the premises to read the meter. The key 'reads' the meter and this information is transferred to the PES via a vendor outlet each time the customer purchases electricity.

- They enable frequent reconciliation of payments and the amount of electricity used. This enables the company to identify instances of fraud or technical failure.

- By using an additional system called Talexus, PESs can add, or remove, debt to a customer's meter without a visit. Presently only Eastern uses Talexus.

- Some versions of the Key meters can be programmed not to disconnect customers at night.

Smart card

3.10 The application of smart card technology within PPMs was jointly developed by Siemens and a group of the PESs. They have issued a licence for use by other manufacturers. There is now a standard industry protocol agreed by some of the PESs (the SCEMA protocol). The meters are manufactured by Siemens or by Ampy under licence. Smart cards have all the benefits of the keycard with additional functionality.

3.11 Smart card meters involve the following operational implications:

- Their use enables the PES to put debt onto the meter remotely and to reset it when the debt is paid off.

- The meter can be programmed not to switch off supply between certain times, for example, overnight when it is difficult to get to a vendor outlet. This feature benefits the customer and also reduces the costs arising from customers ringing the call centre for an emergency call out.

- The meter can be programmed to restore supply immediately even if only a proportion of the emergency credit and other arrears is paid off. The balance of the arrears may be recovered over a period of time. This facility benefits the customer and can reduce costs arising from customer complaints that the meter is faulty. Alternatively, the meter can be programmed so that customers who use up their emergency credit do not get their electricity restored until they refund the emergency credit and any proportion of the standing charge that is owing.

Quantum

3.12 The Quantum meter was developed for British Gas by Landis and Gyr (now Siemens Metering Ltd). Quantum has similar functionality to electricity smart card meters. There is two way communication between the supplier and customers: the meter is programmed remotely via the card with the appropriate tariff, and with any debt, and

relays information back to the supplier, e.g. meter readings. The system is operated by Siemens Metering Services (formerly Central Quantum Office, part of British Gas Trading), which is responsible for supplying gas cards programmed to suppliers' instructions, and for collecting the payments from vending agents and distributing these to suppliers. The network of agents offering the Quantum vending service is nationwide.

Vending Outlets

3.13 An increasing range of outlets is used by suppliers for prepayment meter recharging. In addition to company facilities, the companies use directly managed agents (such as local shops and petrol stations) and third party networks such as the Post Office and Paypoint. In electricity just over a half of the outlets open for extended hours (including Sundays and after 8pm). There is a similar position for gas, where the majority of outlets are operated by either Post Office or Paypoint, with the latter (which accounts for more than half of the outlets) offering extended hours opening.

3.14 The number of outlets varies significantly between suppliers as is shown in Table 7.

Table 7: Prepayment Meter Vending Arrangements (as of March 1999)

Region	Extended Hour Outlets	Other Outlets	Total Outlets	PPM Customers per Outlet	Outlets per 100 sq miles
Eastern	559	1957	2516	125	32
East Midlands	632	60	692	396	11
London	461	12	473	843	184
Manweb	715	62	777	368	16
Midlands	928	396	1324	253	26
Northern	206	342	548	263	10
NORWEB	426	1484	1910	136	40
SEEBOARD	794	29	823	260	26
Southern	652	26	678	449	10
SWALEC	316	676	992	162	22
South Western	528	290	818	256	15
Yorkshire	872	1287	2159	115	53
Hydro-Electric	158	780	938	148	4
ScottishPower	990	171	1161	339	13
Electricity Supply Total/Average	8237	7572	15809	233	N/A
Quantum (All Gas Suppliers)	7730	5600	13330	117	N/A

Emergency Credit

3.15 In England and Wales, the emergency credit provisions for PPM customers range between £3 and £8, with most PESs providing £5 emergency credit. In Scotland, emergency credit provisions range between £10 and £14. The amount of emergency

credit available from gas suppliers over the Quantum system varies between £2 and £5, depending on the supplier's policy.

4. Customer Services

4.1 Recent research by MORI for Ofgem confirms a reasonably high level of satisfaction amongst PPM customers for this method of payment. Budgeting considerations rate highly in the reasons given by customers for preferring a PPM.

Table 8: Satisfaction with Method of Payment

	Customers		Reason for Preferring a Prepayment Meter (%)	
%	All (1212)	PPM (295)		
Totally satisfied	37	31	Easy /convenient	47
Very satisfied	41	37	Best way of budgeting	38
Fairly satisfied	15	23	Prefer to have control over payments	25
Satisfied	93	91	Prefer to pay for what I use when I use it	20
Dissatisfied	3	6	Suits the way I prefer to pay	19
Neither/don't know	5	3	Base: all prepayment meter customers who know it is not the cheapest payment method (105)	
Base: all respondents (1212)				

Source: 'Electricity Competition Review', Research Study Conducted for OFFER by MORI; report published June 1999.

4.2 However some customers do experience problems with the reliability and maintenance of PPMs and with the availability of vending outlets. A total of 31 per cent of PPM customers reported some problems, of which about a third were described as very inconvenient.

Table 9 Incidence of Problems with Prepayment Meters.

	%
The distance travelled to buy tokens or recharge key	7
Times recharging facilities are open	7
Token/key/card not working properly	7
Meter set to collect too much money	6
Position of meter	6
Meter not working properly	5
Recharging facilities being unexpectedly unavailable	5
Don't Understand meter	3
None of These / Don't know	69

Base: All prepayment meter customers (295)

Source: 'Electricity Competition Review', Research Study Conducted for OFFER by MORI; report published June 1999.

4.3 There is an even split between those who agree (43 per cent) and those who disagree (48 per cent) that there are not enough accessible places to obtain tokens/cards or get keys recharged.

4.4 Under the Guaranteed Standards of Performance regulations in electricity, PESs are required to respond to PPM faults within a set timescale: three hours on weekdays and four hours at weekends. Performance under this Standard is monitored. In the year ending March 1999, PESs reported nearly 36,000 PPM faults with only 48 incidents reported where the response standard was not met.

4.5 In gas, no standards have been set under the Gas Act. There are, however, provisions in the licences for standards of performance for British Gas Trading (as the dominant supplier) and public gas transporters, and for the payment of compensation. In the case of British Gas Trading, the company has agreed to meet a standard of service to visit within four hours customers who report difficulties with their gas card for a Quantum meter. This is not a requirement for other suppliers.

Self Disconnection

4.6 A particular concern for customer groups has been the incidence of self-disconnection amongst prepayment meter customers. In the recent MORI study for Ofgem all groups of customers reported some difficulties in paying for electricity (26 per cent). For prepayment meter customers the need to provide regular payments to maintain supply adds a further dimension to the difficulties faced by customers in financial difficulty.

4.7 Interruptions to supply can result from a number of causes, including: lack of money (customers might use some form of rationing as a means of managing on a restricted budget or might self-disconnect temporarily when they actually run out of money at the end of the week); difficulties getting to a charging point (proximity, hours of opening); charging point being out of order; and meter/card fault or breakdown.

4.8 There have been a small number of research studies into self-disconnection, which have tended to be small scale. A study by Doble[1] into gas self-disconnection suggests that in

[1] Doble, M. 'A regulatory policy for self-disconnection – an examination of the reasons for and implications of prepayment meter stoppages.' Centre for Management under Regulation.. Research Paper Series 2/99

general most customers do not self-disconnect on a regular basis. Of those surveyed, 33 per cent reported self-disconnection at some time in the previous year, on average around 4 times a year. However, the majority were under 7 hours.

4.9 A study by CSE/NRFC[2] found that 75-80 per cent of gas and electricity prepayment meter users had 3 or fewer interruptions, but that 15-25 per cent experienced interruptions 4 times or more. CSE/NRFC found that around 50 per cent of interruptions were for 5-24 hours and 20-30 per cent for 4 hours or less and that 10-25 per cent were for more than one day, with this being much more likely for gas. Taking disconnections as a whole, Doble found that 20 per cent were for 7-24 hours and 17 per cent for over 24 hours.

4.10 There were considerable differences in the reasons given for interruptions. CSE/NRFC found that 60 per cent cited lack of money (not specified whether this was waiting for benefits/wages or rationing), but only 15 per cent of the short duration and 25 per cent of the longer duration interruptions cited "waiting for benefits/wages" in the Doble study. Problems with charging outlets being closed were cited by between 5 per cent and 30 per cent of respondents (depending on the study - in the Doble study this was more of a problem for those with supply interrupted for longer periods). 20 per cent of the CSE/NRFC sample cited faulty meters/cards but this is not mentioned in the Doble study. Between 6-20 per cent cite problems getting out due to disability or illness.

4.11 The recent MORI study for Ofgem indicates that, whilst self-disconnection because of lack of money is a problem for some, the majority (60 per cent) of prepayment meter customers had not run out of electricity in the previous 12 months; and a further 18 per cent had run out once or twice (Table 10). Of those who did run out, 34 per cent were off supply for less than one hour. The main reasons for loss of supply were either insufficient money (21 per cent) or the distance to recharging facilities being too far or the nearest being closed (18 per cent). Practical problems may be a particular concern for people living in rural areas or on housing estates without reliable, affordable transport, or for people with disabilities or long term sickness.

[2] 'Counting the Hidden Disconnected', a research study conducted by Centre for Sustainable Energy/National Right to Fuel Campaign – published June 1998

4.12 Related to the issue of self-disconnection a third of prepayment customers surveyed said that they frequently have to use the emergency credit on their meters; and one in five felt that they generally used less electricity than they needed to use.

Table 10 - Incidence and Duration Of Self-Disconnection

Q In the last twelve months, how many times have you run out of electricity?

Q On average, how long were you without electricity each time?

Frequency	%	Duration	%
Once	9	Less than one hour	34
Twice	9	One to two hours	25
Three times	3	Two to five hours	9
Four times	*	Five to ten hours	13
Five or more times	7	Ten to twenty hours	11
		More than twenty hours	8
Ever	27		
None	60	Over two hours	41
Don't know	13	Over ten hours	19
* = less than 0.5% but greater than zero		Base: All electricity prepayment meter customers who have disconnected in past 12 months (90)	
Base: All prepayment meter customers (295)			

Source: 'Electricity Competition Review', Research Study Conducted for OFFER by MORI; report published June 1999.

Action on Services

4.13 Under the terms of the Acts and of their operating licences, gas and electricity suppliers have a wide range of obligations which they have to meet. Included in these is the requirement to have available a range of payment methods which customers may use. These include payment by cash at reasonable locations, cheque, an agreed amount monthly or quarterly in arrears and, in electricity, by prepayment meter.

4.14 All gas and electricity suppliers are required to have in place arrangements to meet these requirements. In electricity, suppliers have to set these out formally in Codes of Practice following consultation with the relevant Consumers' Committee. In gas, all suppliers are also under an obligation to have their arrangements approved and to publish them. All suppliers must report to the Director on their performance in meeting their social obligations.

4.15 The relevant Codes of Practice for electricity suppliers must include details of the arrangements that companies have in place for prepayment meter customers, including where meter keys may be recharged or tokens purchased, and information about the meters and its policies in relation to them. Many electricity companies have in place separate statements of services for prepayment meter customers.

4.16 As part of its work under the Social Action Plan, Ofgem is reviewing the present provisions for prepayment meter customers and the differences between such provisions in the gas and electricity industries. Wherever possible our policy is to consolidate the arrangements for both industries. **We have proposed that all suppliers should have a Code of Practice dealing with services to prepayment meter customers.** This should include standards on response times to faults and give advice on the pros and cons of prepayment meters for customers. The proposed text of the condition is attached at Appendix 2. We expect to issue initial guidance on the contents of the Code later this year.

4.17 The Social Action Plan Framework Document (Ofgem, October 1999) made further specific proposals on prepayment meter services issues. **First, we have called on the industry to support further research into self-disconnection and rationing** (that is, customers using less gas or electricity than they need because of shortage of money or

concern about future bills). There are differences of opinion over the extent to which customers self-disconnect or ration their supplies and over the reasons for this. Research to date has tended to be limited in scope and regionally based. New research is needed in order to:

- Determine on a national basis the extent of self-disconnection and the reasons for it.

- Compare "self-disconnection" through prepayment meters, with "self-rationing" among credit customers.

- Determine the extent to which self-disconnection can be linked to payment method, as well as other factors.

- Determine appropriate policies to detect self-disconnection, and appropriate responses on the part of fuel suppliers to assist customers in need.

4.18 Other issues for consideration on self-disconnection and rationing include:

- The use of emergency credit as a proxy for the identification of problems with self-disconnection.

- The extent to which self-disconnection/rationing is caused by
  - Permanent financial problems such as lack of income/poverty/regularly or frequently running out of money to meet everyday costs of living.
  - Temporary financial problems (eg family crisis, extra cold weather, change of circumstances, other unexpected demands on household budget).
  - Fuel poverty arising from energy inefficient homes and low household incomes.
  - Difficulty in getting to the meter charging point due to household circumstances eg elderly/disabled/sick.
  - Difficulties in getting to the meter charging point due to its distance and/or cost of transport.
  - Breakdown of meter or meter charging point.

- The form that rationing takes and the extent to which this is harmful e.g.
  - Thermostat on heating set low

- Some rooms unheated
- Heating switched off for significant periods when house is occupied
- Limited use of hot water, eg number of baths/showers taken
- Living in colder temperatures than is desirable.

- Ways of minimising customer reliance on call-out services to re-set meters.

4.19 This new research would be best done with different prepayment meter technologies, across a range of areas and suppliers, with support from an expert steering group including both suppliers and customer groups.

4.20 **Second, we have proposed pilot projects to identify the customer implications of different forms of payment and debt recovery using prepayment meters.**

4.21 Apart from the higher tariffs often associated with prepayment meters, these meters also have the disadvantage that where usage is seasonal (particularly the case in gas), expenditure is concentrated into the winter months. For other payment methods (eg direct debits) payments can be spread evenly throughout the year. The scope for turning prepayment meters into a budget payment system with a fixed weekly amount needs to be established. Research should address:

- Whether customers are interested in this type of facility.
- The technical feasibility and costs.
- The need for help with energy efficiency (HEES/EESOP) before customers go onto this method of payment.
- How customers can be helped to ensure their payments stay in line with consumption.

4.22 This research would need to be led by suppliers, with on the ground support, possibly from local agencies, to monitor and advise.

4.23 These projects will better inform future action under the Social Action Plan by Ofgem and suppliers to benefit prepayment meter customers. More generally Ofgem will also be enhancing its monitoring of social obligations as part of its work under the Plan.

Views are invited on whether other action is required to address the service issues raised by prepayment meter customers.

5. Prices and Competition for Prepayment Meter Customers

5.1 Prices to PPM customers have fallen significantly since 1990. Table 11 compares prices in cash and real terms between 1990 and 1998 for different payment methods. This indicates that, whilst prices for all payment methods have reduced, the differential between direct debit and PPM prices has widened somewhat.

Table 11: Average [(A)] UK Domestic Gas and Electricity Bills (including VAT); for consumption [(B)] of 18,000 kWh and 3,300 kWh respectively[3].

	Cash Terms				Real 1995 terms [(C)]			
	1990	1995	1998	1998 differential to PPM	1990	1995	1998	per cent change 1995-98
Electricity								
Prepayment	£264	£319	£283	-	£314	£319	£260	- 18.5
Quarterly credit	£245	£300	£267	£16 or 6%	£291	£300	£245	- 18.2
Monthly Direct Debit	na	£295	£259	£24 or 9%	na	£295	£238	- 19.3
Gas								
Prepayment	£303	£347	£331	-	£360	£347	£303	- 12.5
Quarterly Credit	£285	£327	£315	£16 or 5%	£338	£327	£289	- 11.6
Monthly Direct Debit	na	£311	£277	£54 or 16%	na	£311	£254	- 18.3

Notes:

(A) Weighted average of calendar year bills by overall customer numbers per supplier. Charges and differentials between payment types can vary between companies. Prior to 1996 all gas was supplied by British Gas; competitors are included in 1998. All bills include standing charges and are weighted to represent seasonal fuel use. Direct Debit discounts were not available in 1990.

(B) Consumption for gas prepayment users is typically lower. Comparisons are shown at the same consumption level for consistency.

(C) Adjusted for inflation as measured by the GDP deflator.

Source: DTI

5.2 Present prices for each PES and BGT are shown in Table 12.

Table 12: Average Annual Prices by Payment Method for PESs and BGT

	Direct Debit £	Quarterly Prompt Payment[1] £	Quarterly £	Prepayment £	PPM Surcharge[2] £
Eastern	245	251	251	263	13
East Midlands	244	254	254	276	22
London	247	257	257	268	11
Manweb	270	274	278	294	19
Midlands	245	253	253	263	10
Northern	268	272	276	293	17
NORWEB	248	256	256	274	18
SEEBOARD	243	251	251	263	14
Southern	248	252	255	269	14
SWALEC	283	290	290	317	27
South Western	266	270	274	286	12
Yorkshire	242	244	255	280	25
Hydro-Electric	269	270	278	278	0
ScottishPower	265	270	274	288	14
Electricity Supply Average	256	262	265	279	14
British Gas	272	282	313	313	0

Notes:
1. Not all companies offer a prompt payment discount.
2. These figures derive either from stated prepayment meter surcharges or the difference between the annual standing charge for quarterly credit customers and prepayment meter customers. Any prepayment meter discounts are then subtracted from the figure.
3. Average annual gas bill calculated at 650 therms (19,050kwhs) as at July 1999. Excludes tariffs for supplies to customers connected to independent PGTs; tariffs without standing charges and regional tariffs. Electricity bills calculated at 3,300kwh at 1 October 1999.

5.3 The prices charged by other suppliers vary significantly. Prepayment meter customers can normally find alternative suppliers which offer lower prices than the incumbent supplier. Table 13 summarises the present position. It excludes consideration of various special tariffs including the Equigas tariff which offers lower prices to

prepayment meter customers. Saving levels vary according to consumption. In the case of gas the Tables 13 and 14 use data for a relatively high prepayment user (650 Therms – 19,050 kwhs) to aid comparison with other payment methods. Using a more typical consumption level discloses savings for prepayment customers of up to £12 (or 5%).

Table 13: Achievable Savings for Prepayment Meter Customers

Incumbent Supplier	Incumbent Prices	Best Saving %	Median[2] Saving %
BGT[1]	313	(2)	(4)
Eastern	263	8	(1)
East Midlands	276	4	(7)
London	268	2	(5)
Manweb	294	6	(5)
Midlands	263	6	(6)
Northern	293	11	(3)
NORWEB	274	3	(7)
SEEBOARD	263	11	(6)
Southern	269	3	(8)
SWALEC	317	13	(3)
South Western	286	5	(5)
Yorkshire	280	3	(4)
Hydro-Electric	278	5	(10)
ScottishPower	288	4	(7)
Electricity Average	279	6	(5)

Notes: 1. Annual bills calculated at an average consumption level of 650 therms per year for BGT gas customers paying by PPM. Excludes tariffs for supplies to customers connected to Independent Public Gas Transporter's Networks; tariffs that have no standing charge; and tariffs that are not available nationally. Correct as at July 1999. Electricity bills calculated at 3,300kwhs as at October 1999.

2. For gas the average price offer is the middle offer in the range. For electricity it is the simple average.

5.4 Nevertheless, the savings available from competition to prepayment meter customers who wish to retain their prepayment meter are lower than those available to quarterly billed and direct debit customers. The comparison is summarised in Table 14, together

with an indication of the savings available to those customers who switch payment methods.

Table 14 A: Savings Available from Switching by Payment Method[1]

	Payment Method	Incumbent Bill £	Best Savings %	Median[2] Savings %
Gas	PPM	313	(2)	(4)
	Quarterly	313	19	17
	Prompt Pay	282	10	7
	Direct Debit	272	11	8
Electricity	PPM	279	6	(5)
	Quarterly	265	9	3
	Direct Debit	256	10	4

Table14 B: Savings Available from Switching Payment Method

£ annual	Incumbent PPM Tariff	Best Saving to other PPM %	Best Saving changing to Direct Debit %
Gas	313	(2)	22
Electricity (Average)	279	6	17

Notes: 1. Annual bills calculated at an average consumption level of 650 therms per year for BGT gas customers paying by PPM. Excludes tariffs for supplies to customers connected to Independent Public Gas Transporter's Networks; tariffs that have no standing charge; and tariffs that are not available nationally. Correct as at July 1999. Electricity bills calculated at 3,300kwhs as at October 1999.

2. For gas the average price offer is the middle offer in the range. For electricity it is the simple average.

5.5 The level of take-up by competing suppliers of prepayment meter customers is summarised in Table 15. This shows that the switching rate of prepayment meter customers is somewhat lower than that for other domestic customers.

Table 15: Switching Rates Compared

	Customers switching ('000s)	% all customers	PPM customers Switching ('000s)	% PPM customers
Gas	5,072	25.3%	237	15.2%
Electricity	2,106.	8.2%	113	3.1%

Source: Latest data from industry sources.

5.6 Some caution needs to be exercised in interpreting these figures. There is some evidence that customers either feel under pressure to change payment method on switching or otherwise decided to do so. Overall in both gas and electricity about one in four customers who switch suppliers change payment method. Certainly the saving available to customers who switch from an incumbent's PPM tariff to direct debit are significant as is shown in Table 14B.

5.7 There are indications however that company policies also have an impact. Table 16 shows the divergence in the proportion of each supplier's customer base accounted for by PPMs (this excludes data for incumbents which was given in Table 3.

Table 16: Proportion of Customers using PPM by supplier

	% PPMs	Gas	Electricity
Number Of Suppliers	10% +	4	4
	5-10%	4	3
	1-5%	8	4
	< 1%	9	6
	Average	4.7%	5.3%
%	Incumbent Average	8.8%	16.6%

Notes: This data may understate the proportion of customers using PPMs as some small business customers are included in the switching data. Many of those companies with a low proportion of PPM customers are known to be focusing their marketing efforts on small business customers rather than householders. Data collected from industry sources by Ofgem.

Barriers to Competition

5.8 The reasons for the lower level of switching by prepayment meter customers are not clear. Previously, in this document we have noted that switching payment method may mask the real level of switching by (previously) prepayment meter customers. However, it seems likely that other factors are also at work.

5.9 Suppliers have raised three main concerns. First, several suppliers argue that the margins on prepayment meter customers are lower than those for other customer groups. The significance of this is difficult to predict. The analysis of the costs of incumbents in electricity suggests that the various charges made by PESs are not in line with costs. However, this is only of limited value in assessing the position of entrants where cost structures may be very different. Nevertheless it suggests some caution should be exercised in the further re-balancing of tariffs in favour of prepayment customers.

5.10 Second, suppliers have argued that prepayment meter customers are unattractive marketing prospects because of existing debts. In cases when debt is being collected through the meter the existing supplier has the right to block the customer from switching. This 'objection' process imposes costs on the intended new supplier and the customer may not be able to switch. PPM customers are an identifiable group where the objection process is likely to apply and this may be a factor in discouraging suppliers from seeking existing PPM customers. Under the Social Action Plan Framework Document we have proposed reviewing the present arrangements on objections with a view to removing the right of suppliers to block customers switching because of debts.

5.11 Third, suppliers have expressed concerns about the practical complexities of dealing with prepayment meter infrastructures. This is particularly critical in electricity where systems vary by technology and to some degree by area. Making arrangements with 14 different infrastructure providers is complex and administratively burdensome for suppliers. Opening this area to competition from April 2000 should help address some of these problems but, with the infrastructure to some degree dependent on the meter type, continuing difficulties are likely to arise. Ofgem will continue to monitor the

services provided by infrastructure providers and look for new ways to promote competition in the provision of these services. Views on this issue are invited.

5.12 Barriers may also arise because of a lack of information for customers. MORI's research suggested that whilst all customer groups were well informed about competition this tended to be less the case for disadvantaged customers. Clearer information about prices would help. Under the Social Action Plan we have proposed new requirements on suppliers to give pricing information in a clear and easily registered form. We will be consulting on specific proposals in November.

6. Cost Analysis for Electricity Prepayment Meters

6.1 Concern has been expressed by consumer groups about widening differentials between PPM charges and those for other payment methods. Several consumer groups have questioned whether the observed differentials are justified by cost differences. Supplier and meter providers have argued that present charges typically understate the additional costs involved.

Components of Cost

6.2 In considering these matters it is relevant to analyse three main components of cost which need to be considered in reviewing any surcharge for prepayment metering. First, any additional costs arising from the installation and operation of prepayment meters in comparison with standard credit meters. Second, the costs of the support infrastructure used by suppliers (that is the service for issuing and charging keys, etc). Third, any other costs met by the supplier, for example the costs of meter reading, bad debt, working capital and customer enquiries. Broadly speaking the components are similar in scope in both electricity and gas.

6.3 In the next sections we describe the recent review initiated by Offer on electricity prepayment metering. The electricity review was assisted by consultants Ernst & Young (E & Y). The methodology they used is set out at Appendix 3. It focuses on the costs of the PESs. Costs of other suppliers may be different.

Meter Costs

6.4 In electricity, meters are normally provided by the local PES distribution business. Ofgem's consultants, Ernst & Young, considered the forward looking costs to the PES distribution businesses of providing prepayment metering equipment. This excludes any costs associated with meter reading which presently is a distribution function but will be a supply function from April 2000. The following table summarises Ernst & Young's (E & Y's), initial estimates, showing separately the costs for the differing prepayment meter technologies.

Table 17: Electricity Meter Provision Costs

Process costs	Credit meters (single rate)	Prepayment meters		
£/customer pa E&Y forward estimates	Standard quarterly	Smartcard	Key	Token
Operating costs:				
Resolve queries -meters	0.50	1.00	1.00	1.00
Meter operation	2.00	7.90	8.50	8.75
Total op. cost	2.50	8.90	9.50	9.75
Capital related:				
Meter purchase & installation	2.20	9.00	8.80	8.10
Additional costs of PPMs				
Operating cost		6.40	7.00	7.25
Capital related		6.80	6.60	5.90
Total distribution		13.20	13.60	13.15

6.5 On Ofgem's advice, E&Y based their analysis on a 7 per cent per annum real return on capital. In the above table the capital related components of cost have been recalculated with a 6.5 per cent per annum return, in line with the value used for the Distribution Price Control Draft Proposals.

6.6 In their study, E&Y used a PPM meter life of 10 years, equal to the certification period. Although the meters can be recertified for a further 10 years, Ofgem has taken the average operational life for a PPM to be 15 years. The above table therefore assumes meter lives of 20 years for credit meters and 15 years for PPMs.

6.7 The table shows that the additional cost of providing and maintaining a PPM meter is between £13.15/meter pa and £13.60/meter pa, based on the current purchase cost of meters. E&Y identified that the capital cost of meters has reduced significantly over the recent years, and that current PPM charges reflect recovery of the historic capital costs. Ofgem considers it appropriate to make some allowance for recovery of these historic costs. The range of purchase costs disclosed by Ernst & Young is wide and not all purchases appear economic. However, the differences identified between the technology types do not appear to be of sufficient significance to warrant differential charges.

6.8 Whilst the gas and electricity studies had somewhat different methodologies the broad conclusions are similar. Ofgem considers that for electricity an additional distribution metering charge capped at £15 a year (or the present charge where lower) would be appropriate over and above standard single rate metering charges.

6.9 In the distribution price control review, the income from the additional PPM meter charges is classed as excluded service revenue. In the calculation of allowed revenue, the revenues are first calculated on the basis of total business costs and then reduced to the extent that income is received for excluded services. The following table shows the proposed distribution PPM charge assumptions that will be used in setting the distribution price control for April 2000.

Table 18: Allowed Distribution Charge

	Allowed distribution charge from April 2000
Eastern	£11.22
East Midlands	£15.00
London	£15.00
Manweb	£15.00
Midlands	£15.00
Northern	£15.00
NORWEB	£15.00
SEEBOARD	£15.00
Southern	£15.00

SWALEC	£15.00
South Western	£15.00
Yorkshire	£15.00
Hydro-Electric	£0.00
ScottishPower	£15.00 *

*Meter services currently provided by the supply business, to be provided by the distribution business from April 2000.

6.10 It is proposed that in order to encourage efficient management of meter operations, the above PPM charges should remain unchanged in nominal terms throughout the period of the control. These conclusions were reflected in the distribution price proposals.

Infrastructure Costs

6.11 These costs concern the arrangements for issuing cards, tokens etc, collecting cash from customers through a network of outlets and disseminating payments and information for suppliers

(a) Gas

6.12 In October 1998, Ofgas set out forward-looking projection of charges from1998 to 2000 for the Siemens Metering Service (SMS) Ofgas' projected charges are set out below:

Table 19: Ofgas' Projected Charges (1998 Prices)

Year	1998 (£/meter/month)	1999 (£/meter/month)	2000 (£/meter/month)
Ofgas' projected charge	1.88	1.67	1.47

6.13 The guideline charges were set at £1.88 per meter per month or £22.56 per meter per annum.[1]

[1] These charges are based on a supplier taking the complete package of SMS's infrastructure services. Certain elements of the charge, such as prepayment commission costs associated with payments to the Post Office Counters Ltd (POCL), can be avoided. BGT has elected to contract directly with POCL for these services and consequently pays less for its use of prepayment infrastructure.

SMS's current charges reflect Ofgas' 1999 guideline charge of £1.67 per meter per month or £20.04 per meter per annum. Ofgas' projections suggest that efficiency savings will reduce these charges to £17.64 per meter per annum by the year 2000.

b) Electricity

6.14 In electricity each PES is required to provide a prepayment meter infrastructure service on non-discriminating terms to suppliers. The service is provided through the PES supply business. Generally it forms an inherent part of the supply business but some elements are subject to third party costs including for example those levied by Post Office Counters Ltd for cash collection.

6.15 Present charges levied by the PESs were set by OFFER in 1997 as part of the 1998-2000 supply review. Charges were determined by reference to the net supply business charges made to final customers and presently range from £2.50 to £8.00 a year. At the time these charges were set the form of the infrastructure service was still under discussion and work on the separation of distribution and supply still at an early stage. The Ernst & Young analysis suggests that these charges significantly understate the costs involved. Ernst & Young's estimate that the costs might amount to about £12.00 a year.

6.16 Ofgem notes that the Ernst & Young forecast excludes any provision for those indirect costs necessary to sustain the infrastructure independently of the PES supply business. In addition third party charges suggest a higher allowance would be appropriate. Ofgem consider that £15.00 a year will be appropriate from April 2000. Again this is of a similar order to the charges levied in the gas market.

Supply

6.17 The third component concerns the costs incurred by the supplier itself (that is, excluding the infrastructure charges and meter charges).

6.18 In assessing the costs of PPMs and associated services, the benefits to suppliers from PPM customers were also taken into account. E&Y considered that the main benefits PPMs bring to a supply business compared to a credit meter are:

- debt management

- an ability to prevent new debt arising
- an ability to collect debt from previous payment method
- an ability to avoid debt follow-up costs including the costs associated with disconnection

- elimination of bad debt exposure
- working capital savings through early, regular payment by the customer

6.19 There are further operational benefits:

- the elimination of the need for manual meter reading for Smartcard and Key meters
- a need for fewer statements to be sent to customers
- the provision of regular information on customers' consumption which may enable suppliers to purchase generation more cost efficiently
- more frequent contacts between customer and supplier giving opportunities for the promotion of other company products.

6.20 E&Y considered these benefits in conducting its study. Its results are summarised in the following table.

Table 19: Electricity Supply Costs Compared

Process costs	**Credit meters (single rate)**	**Prepayment meters**		
£/customer pa	Standard quarterly	Smartcard	Key	Token
E&Y forward estimates				
Operating costs:				
Meter reading	2.50	0.00	0.00	1.25
Process bills	2.00	1.25	1.25	1.25
Resolve queries - non-meters	2.80	5.00	5.00	5.00
Account collection	2.80	0.00	0.00	0.00
Manage debts	4.20	0.00	0.00	0.00
Business sustaining	0.00	(3.45)	(3.45)	(3.45)
Total op. Cost	14.30	2.80	2.80	4.05
Net PPM Saving		11.50	11.50	10.25

6.21 In the above table, the cost of managing debt, including bad debt, is placed with the standard quarterly tariff under which the debt was incurred, although the debt is recovered through the PPM. This, together with the business sustaining (working capital) benefit deriving from the earlier receipt of payments from PPM customers, means that

the supply costs of serving PPM customers is estimated by E&Y at about £11.50. Token meters show a lower saving as they are assumed in the E&Y assessment to require regular meter reading. There are some similarities with the earlier Ofgas analysis although that suggested a higher benefit should be ascribed to prepayment meter customers (primarily through bad debt avoidance).

6.22 Overall the cost levels reported by E&Y appear to understate the overall cost of the supply business (their study was conducted prior to the extent of the distribution to supply transfer was identified). Supply business costs were analysed in the recent supply price control proposals document. Whilst many of the costs identified will not vary between payment type the overall supply price analysis, together with the results from the gas market, suggest that the level of savings may be understated.

Summary of Results

6.23 The preceding sections have outlined the costs associated with each component of the prepayment meter service. The following table brings those results together.

Table 20: Additional costs of Electricity PPMs £/customer pa

Costs incurred by supplier	Additional electricity PPM costs £/customer pa
Distribution business:	
meter procurement & operation	15.00
Supply:	
operating savings	-11.50
Total	3.50

Consideration of results

6.24 These findings are broadly in line with present price surcharges by most PESs. As noted above the calculations of the benefits to suppliers for prepayment supply may somewhat understate the position. In broad terms it appears that the costs to a PES supplier of a prepayment meter customer might reasonably be of the same order as those of a typical quarterly credit customer – that is, excluding consideration of the prepayment meter cost/charge levied by the distribution business. This is in line with the conclusions reached by Ernst & Young (E & Y).

6.25 Accordingly Ofgem proposes that PES prepayment meter tariffs should be decreased in line with the proposed reductions under the supply price control proposals for the standard quarterly tariff, subject to PESs being able to charge an annual surcharge limited to the annual distribution business prepayment meter surcharge.

6.26 On this basis the allowed maximum prepayment meter surcharge would be as set out in Table 21.

Table 21: Proposed Maximum Prepayment Meter Surcharge by PESs

	Maximum Annual PPM Surcharge by PES
Eastern	£11.22
East Midlands	£15.00
London	£15.00
Manweb	£15.00
Midlands	£15.00
Northern	£15.00
NORWEB	£15.00
SEEBOARD	£15.00
Southern	£15.00
SWALEC	£15.00
South Western	£15.00
Yorkshire	£15.00
Hydro-Electric	£0.00
ScottishPower	£15.00

6.27 The precise application of this proposal will need to be discussed with each company in the context of its existing and prospective tariff arrangements.

7. SUMMARY AND PROPOSALS

7.1 This document brings together the various strands of Ofgem's work relating to helping gas and electricity customers who use prepayment meters. It also brings together data of prepayment meters to aid analysis and explains the three basic technologies used in electricity and the one in gas. This document complements Ofgem's recently published Social Action Plan proposals and those for PES Supply and Distribution Price Controls.

7.2 Prepayment meters are generally popular with the customers that use them and provide a means of payment that avoids the build up of debt. The meters were often installed to recover debts but remain in place after the debt has been repaid. The majority of the households that use them are amongst the less-well-off. However, the majority of the less-well-off do not use prepayment meters and in particular such meters are not popular with the elderly. Only 3 per cent of those receiving state pensions have a gas prepayment meter and only 12 per cent an electricity one. The use of prepayment meters is therefore a very poor proxy for those who can be classed as fuel poor.

7.3 Whilst popular as a payment method using a prepayment meter costs the customer more than by paying other means, notably direct debit. Prepayment prices have decreased significantly in real terms since 1990 for both gas and electricity. However prices for direct debt customers have decreased more.

7.4 Prepayment meter customers are charged more because prepayment systems are more expensive to provide. The additional charges for electricity prepayment metering can be broken down into the following three categories:-

- The extra cost of the meter and its maintenance;

- The costs of the support infrastructure used by suppliers (giving out cards/keys and the charging of them); and

- All other costs (bad debt, working capital, customer enquiries).

7.5 In this document Ofgem proposes that the additional distribution charge (the prepayment surcharge) for an electricity prepayment meter should be capped at £15 from April 2000. In addition PES prepayment meter tariffs should be decreased in line with proposed reductions under the supply price control proposals for the standard quarterly tariff, subject to the PESs being able to charge no more than the "distribution surcharge" of £15 over and above their standard quarterly billed customer tariff. In some cases PESs charge up to £27.

7.6 In coming to these proposals Ofgem took account of the benefits prepayment meters give suppliers compared to credit meters. Among these are:

- Debt management (both collection and prevention of additional or new); and

- Working capital savings through the collection of regular payments;

Social Action Plan

7.7 This document highlights action in relation to prepayment meter customers set out in the Social Action Plan. These include the inclusion of a new standard condition to both the gas and electricity suppliers licence obliging suppliers to prepare a Code of Practice on the arrangements they have in place for prepayment meter customers. The code will have to include information about where keys/cards can be recharged, what the customer should do if the meter malfunctions and standards of performance applying, together with the associated payments for failure to comply.

7.8 Ofgem has called on the industry to support research into self-disconnection and rationing and the reasons for it. In addition, Ofgem intends to ensure customers are made aware of the cheaper alternatives to using a prepayment meter.

7.9 Ofgem is also committed to review improving access by prepayment meter customers to the competition market. It will review the scope for customers with debt to be allowed to switch supplier and will be bringing forward a consultation document on this in November. It also plans to consult on price comparison information for customers and has invited comments on ways to improve the services available to competing suppliers through the various prepayment meter systems.

Ofgem would welcome comments on the issues reviewed in the document and in particular on the programme of work it has set out to address the needs of PPM customers.

Appendix 1

'Electricity Competition Review', a Research Study Conducted for OFFER by MORI, June 1999

A total of 1,212 interviews was conducted with domestic electricity customers in those areas opened up to competition by the end of December 1998. Interviews were conducted with the person wholly or jointly responsible for paying the household's electricity bill and who would make the decision to change supplier, either on their own or in consultation with another household member. The proportion of 'switchers' and customers in the E social class were boosted to allow for their separate analysis.

To ensure that the results are representative of customers in the areas selected, the data were weighted to the known profile of households by age and working status of head of household, as well as by the Sun Mosaic life code of those Enumeration Districts (Eds) in the areas opened up to competition, and the percentage of switchers understood to be in these areas at the time of fieldwork – that is, 5%. Data entry and analysis were carried out by Independent Data Analysis.

All interviews were conducted face-to-face, in-home, between 6 February and 15 March 1999. Fieldwork was carried out by MORI/Field & Tab. Interviewers were provided with a list of addresses within each sampling point (ED). They were instructed to leave at least three doors between each call. Half the interviews conducted by each interviewer were carried out in the evenings or at the weekend.

'Gas Competition Review', MORI, November 1998
'Customer Characteristics by Payment Method', Research Study Conducted for Ofgas by MORI, December 1998

National Quantitative Research, July/August 1998: 2,511 in-house, face-to-face interviews with household gas bill payers, including 803 interviews with switchers and 691 interviews with Scottish households, both of whose numbers were boosted to allow for separate analysis. Similarly, the proportion of "lower income" Enumeration Districts in the sample were boosted

so as to provide a more robust sample of lower income groups for separate analysis. Data were grouped by postcode into gas competition areas using postcode lists supplied by Ofgas. Final data were weighted to reflect the known profile of gas customers in England and Wales, and Scotland, by work status, age, social group and switchers vs non-switchers. Fieldwork was carried out by MORI/Field & Tab between 11 July and 16 August 1998.

Appendix 2

Condition 18A. Code of practice on the use of prepayment meters

1. The Licensee shall, no later than [28 April 2000], prepare and submit to the Director for his approval a code of practice concerning the use of prepayment meters by its Domestic Customers, including appropriate guidance for the assistance of its prepayment meter customers who wish to take a supply of electricity on other terms.

2. The code of practice shall set out the Licensee's policy on the installation of prepayment meters and shall include procedures by which the Licensee will where appropriate:

   (a) provide general information for customers on the operation, usefulness, advantages and disadvantages of prepayment meters, including details of:

      (i) token outlets and card or key charging facilities within the areas supplied with electricity by the Licensee;

      (ii) the actions available to customers on the malfunction of a prepayment meter or a prepayment card or key; and

      (iii) any standards of performance (and associated payments) applying to the Licensee in relation to premises supplied by it through prepayment meters;

   (b) arrange for the calibration of any prepayment meter provided in accordance with sub-paragraph 2(f) of Condition 18 so as to take into account, having due regard to all information available to the Licensee (including any information made available to it by other persons or organisations), the relevant customer's ability to pay any charges due from him under the arrangements contemplated by that Condition in addition to the other charges lawfully being recovered through the prepayment meter;

   (c) arrange for the re-calibration of prepayment meters:

(i) in the case of an individual customer, at the conclusion of any such arrangements applying to that customer; and

(ii) generally, following changes in the price at which the Licensee supplies electricity to prepayment meter customers; and

(d) remove prepayment meters, setting out the timescale within which such removal might be expected to take place.

3. This Condition is subject to the provisions of Condition 23A.

Condition 18A: Code of practice on the use of prepayment meters

(1) The licensee shall, no later than [28 April 2000], prepare and submit to the Director for his approval a code of practice concerning the use of prepayment meters by its domestic customers, including appropriate guidance for the assistance of its prepayment meter customers who wish to take a supply of gas on other terms.

(2) The code of practice shall set out the licensee's policy on the installation of prepayment meters and shall include procedures by which the licensee will where appropriate:

(a) provide general information for customers on the operation, usefulness, advantages and disadvantages of prepayment meters, including details of:

(i) token outlets and card or key charging facilities within the areas supplied with gas by the licensee;

(ii) the actions available to customers on the malfunction of a prepayment meter or a prepayment card or key; and

(iii) any standards of performance (and associated payments) applying to the licensee in relation to premises supplied by it through prepayment meters;

(b) arrange for the calibration of any prepayment meter provided in accordance with sub-paragraph (1)(f) of standard condition 19 so as to take into account, having due regard to all information available to the licensee (including any information made available to it by other persons or organisations), the relevant customer's ability to pay any charges due from him under the arrangements contemplated by that condition in

addition to the other charges lawfully being recovered through the prepayment meter;

(c) arrange for the re-calibration of prepayment meters:

(i) in the case of an individual customer, at the conclusion of any such arrangements applying to that customer; and

(ii) generally, following changes in the price at which the licensee supplies gas to prepayment meter customers; and

(d) remove prepayment meters, setting out the timescale within which such removal might be expected to take place.

(3) This condition is subject to the provisions of standard condition 15.

Appendix 3

Methodology Adopted by Ernst & Young

To inform decisions on electricity PPM tariffs, Ofgem commissioned consultants Ernst and Young (E&Y) to carry out an objective assessment of the costs of PES prepayment systems, and to report on the costs of serving prepayment customers compared to standard quarterly customers on the basis of efficient operating practices.

The study carried out by E&Y examined the costs of the main processes concerned with supplying meters and payment facilities to domestic electricity customers (prepayment and standard quarterly) so that the additional costs associated with PPMs could be assessed and placed with the distribution and supply businesses as appropriate.

E&Y identified eight processes involved in providing services to prepayment meter customers which were seen as the most likely to lead to differences in costs or benefits:

- Meter reading
- Resolve queries - meters
- Meter provision & maintenance
- Process bills
- Resolve queries - non-meters (includes bill and account queries)
- Account collection - credit customers
  PPM infrastructure - PPM customers
- Manage debt (includes bad debt write-off)
- Business sustaining (working capital to fund the difference in timing between the receipt of payments from credit customers and from prepayment customers)

E&Y reviewed data obtained from the PESs for the financial year 1997/98 for metering activities in both the supply and distribution businesses. They carried out further analysis and verification through interviews with each PES. They also carried out

modifications to remove double counts, to add new data and to correct mis-allocations of costs. The revised costs were then verified with the PES concerned, and the forward looking cost estimates for each process derived. Supporting information was obtained through discussions with manufacturers of metering equipment, operators of PPM infrastructure and companies offering meter reading services.

In the request for process data, companies were asked to provide the direct costs of each activity in order that comparisons could be made which were not influenced by different methodologies for allocating corporate overheads. It was also considered that the allocation of overheads to metering activities would not significantly affect cost differences between credit meters and prepayment meters.

Following discussions with each company, E&Y assessed the validity of each process data point, considered the range and mean for each process cost and the appropriate level of cost for efficient operations. It was recognised that there could be trade-offs between processes. For example, a company may choose to read meters more frequently in the expectation that the reduction in the number of estimated bills will reduce the calls to its call centre and improve overall customer service. A check of reasonableness was therefore performed on the individual process costs by comparing the resulting total figures with the stated PES costs.