

**Approach and  
Pricing Model**

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National Grid Metering 2012  
Pricing Consultation



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# Foreword

National Grid manages electricity and gas Transmission and Distribution networks in both the UK and US. It provides gas transportation, metering and daily meter reading services throughout Great Britain for companies that supply domestic and industrial and commercial consumers. National Grid is an Ofgem Approved Meter Installer (OAMI) and registered Meter Asset Manager (MAM) and provides a range of meter provision, installation and maintenance services. For further details of these services please contact the National Grid Metering (NGM) commercial team via email at [metcom2@nationalgrid.com](mailto:metcom2@nationalgrid.com). National Grid Metering is a subsidiary of National Grid and National Grid Gas (NGG), providing metering services to around 15 million of NGG's traditional gas meters within the regulated gas market.

This consultation document focuses on NGM as we undertake NGG's metering obligations as set out in their Gas Transporter Licence. Following on from our Preliminary Stakeholder Engagement document, it will be used to help shape our regulated pricing proposals for 2013 and beyond. Subject to these being agreed with the energy regulator, Ofgem, they will form the framework for traditional (non-smart) metering services and charges to the end of the smart meter mass roll-out period (or such other period as may be agreed as part of this consultation).

## Purpose

In this document, we set out the basis for a consultation on the charges for regulated metering services provided by National Grid Gas. We outline our assumptions and seek your views on a number of questions including the way tariff caps and other regulatory controls should be applied. We seek responses by 2 November 2012 so that your views can be included in our proposals which will be submitted to Ofgem by December.

- Section One sets out the context in which the traditional gas metering sector will operate in the transition to smart metering and the role that we believe NGM has to play
- Section Two discusses Ofgem's Review of Metering Arrangements (RoMA). It outlines the new obligations we expect the Backstop Meter Provider of Last Resort and National Metering Manager roles bring and the likely impact on our business we expect them to have
- Section Three details how we have developed our pricing model and the factors that we believe influence it
- Section Four details our high level pricing model, sets out in more detail our assumptions and the proposed tariff caps resulting from these

- Section Five sets out the form and duration of the stakeholder consultation period. This is based on the feedback to our Preliminary Stakeholder Consultation you gave us
- Section Six explains the remaining steps we expect to occur, further information about our process and the documentation we have used

We would welcome your views on any aspect of our metering service, its charges or the approach we take to our pricing consultation. Please send your comments via email to [ngm.priceconsult@nationalgrid.com](mailto:ngm.priceconsult@nationalgrid.com). This publication is also available from our website [www.nationalgrid.com/uk/Metering/PricingConsultation/Documents](http://www.nationalgrid.com/uk/Metering/PricingConsultation/Documents)

# 1 Introduction



## 1.1 Background

The last Price Control Review (PCR) affecting gas metering occurred in 2001 as part of the Transco Gas Distribution PCR, with tariffs applied with effect from April 2002. Key features of this review were:

- Obligations to provide and install domestic meters (the Meter Provider of Last Resort or MPOLR obligation)
- Tariff caps for the pricing of domestic credit and prepayment meter installation, transactional work to exchange a credit meter for a prepayment meter and daily meter reading services
- A general obligation not to unduly discriminate

Tariff caps consisted of an aggregated amount for the provision, installation and maintenance of meters, adjusted by the Retail Price Index (RPI) each year and set against an initial expectation that they would be lifted after two years. They were also constrained to accommodate an initial differential between the tariffs for domestic credit and prepayment meters of £15.

In 2004 National Grid offered two new alternative rental contracts (the MSAs) that had lower rental rates and set out premature replacement charges if meters were removed before the end of their expected service life. One contract covered Legacy meters – for those assets already in situ – while a New and Replacement contract set out terms for any meters installed thereafter. In 2008, Ofgem found that the Legacy contract breached the Competition Act and National Grid referred the matter to the Competition Appeal Tribunal (CAT) and Court of Appeal.

In June 2006, Ofgem announced their intention to undertake a PCR of the regulated gas and electricity metering businesses. However,

following consultation they decided at that time not to undertake a review of the gas metering price controls and licence conditions whilst the competition investigation was underway and the controls and caps established in 2002 were rolled forward.

More recently, Ofgem has undertaken its Review of Metering Arrangements (RoMA) which has set out views on the transition from traditional to smart metering.





## 1.2 The transition to smart metering

The smart metering roll-out will see the replacement or upgrading of traditional gas meters for new, smart technologies by the end of 2019. This will create challenges associated with the transition and the associated reduction in numbers of traditional meters. It will also change the nature of some of the activities undertaken under the current regulatory framework as traditional metering becomes a smaller, more marginal activity. Given the length of time since the previous price control review and in light of the changes that the smart meter roll-out will bring, we welcome Ofgem's invitation to conduct a pricing consultation with our stakeholders.

We want to help guide the orderly transition to a world where homes and businesses will have smart gas meters. In the transition to smart metering, we believe NGM has a vital role to play in the efficient management of traditional gas metering services, maintaining appropriate services for traditional meters yet to be replaced.

Following the recent consultation process, Ofgem has reached some final policy decisions and invited National Grid to accept new obligations in respect of traditional meters, using a Pricing Consultation to agree the appropriate basis for regulated charges in the future. They also identified some key issues that they expect us to consult upon (below), which are discussed in more detail in Sections 3 and 4.

- **Rate of return** – We propose continuing to use the standard regulatory model that links rate of return to the Regulatory Asset Value (RAV); however given that the rate of return explicitly drives the revenue requirement which in turn determines the level of tariff caps we will consult to agree an appropriate level for this.
- **Allocation of the Regulatory Asset Value** – The allocation of the RAV is a key factor in establishing appropriate metering tariffs. We will set out and outline the effects of the different methodologies for RAV allocation.
- **Assumptions for domestic metering** – We will set out our assumptions for all forecast rental and activity volumes (installation and maintenance), revenues and efficient levels of expenditures relating to the domestic business through to the conclusion of the smart meter rollout.
- **Assumptions for non-domestic metering sector** – We will set out our view of the non-domestic metering sector. Charges for this sector are governed by commercial pressures and in parallel with this consultation we expect to engage in commercial discussions with our customers. We set out our views and consult on an appropriate form of regulation in a competitive market.
- **Uncertainty mechanisms** – We will identify potential areas of uncertainty which we believe may significantly impact on our Pricing Model. We will detail the assumptions we have made regarding these and consult upon how ongoing uncertainty should be managed within the price control period.

## 2 Review of Metering Arrangements



### 2.1 RoMA findings

Ofgem published their document “Decision and further consultation on the regulation of traditional gas metering during the transition to smart metering” in July 2012<sup>1</sup>. This confirmed their plans to proceed with their “minded to” approach detailed in the “Review of Metering Arrangements”, published in December 2011<sup>2</sup> and confirmed three issues:

- The introduction of a national back-stop metering provider of last resort, the B-MPOLR obligation, with the Distribution network owning the obligation (National Grid Gas) being known as the National Metering Manager (NMM)
- The initiation of a process to review the regulated gas metering tariffs in operation since 2002, with National Grid asked to lead a pricing consultation with stakeholders
- Existing, market-based arrangements will continue in respect of Post Emergency Metering Services (PEMS) but meters installed as a result of PEMS will be eligible upon request for adoption by the NMM

Ofgem’s findings regarding the B-MPOLR and NMM will change NGG’s licence obligations and create new roles for us to undertake. Amongst other factors, our pricing model will consider these new obligations in proposing the levels of future tariffs.



<sup>1</sup> Ofgem document reference 100/12 available via <http://www.ofgem.gov.uk/Markets/sm/metering/tftm/roma/Documents1/Final%20Policy%20Decision%20Document%2025%2007%2012.pdf>

<sup>2</sup> Ofgem document reference 175/11 available via <http://www.ofgem.gov.uk/Markets/sm/metering/tftm/roma/Documents1/ROMA%20Final%20Decision.pdf>

## 3 Pricing Model approach



### 3.1 Positioning our Domestic and I&C businesses

The transition to smart meters will have a profound impact on the nature of National Grid's metering business. The Domestic smart metering mandate will see the exchange or upgrading of all gas meters for smart technologies. In all but the largest domestic properties, the requirement is for a fully smart meter with an integral valve, coupled with an in-home display (IHD) and remote communications to the proposed Data Communications Company (DCC).

This specification drives replacement of the existing traditional domestic sized meters (those meters with a maximum capacity of 6 scm/h). National Grid has confirmed that it is not intending to undertake the installation of fully smart domestic meters and we expect to see our estate of traditional domestic-sized meters prematurely displaced as the smart metering roll-out progresses.

Non-domestic (also known as Industrial and Commercial or I&C) meters will also be required to be 'smart' by 2020, offering remote data accessibility. However, they will not necessarily need to be exchanged where Advanced Metering or automated meter reading (AMR) facilities can be retro-fitted so existing assets can remain in service until normal retirement. We will continue to offer services in the I&C market but believe that the greater degree of competition in this sector, where there is a significant drive for enhanced services and downward pressure on rental charges, is the principal factor in defining the future for this part of our business.

Ofgem require that our consultation informs how the metering RAV should be allocated between the Domestic and I&C parts of our business. This will be an important factor in the revenue calculation determining the level of domestic tariffs to be proposed but also in establishing an appropriate relationship between the legacy of regulation (predominantly the non-discrimination requirement) and the competitive market we feel already exists.

Our initial modelling is based on assumptions that domestic meters will be displaced as gas suppliers comply with the smart meter mandate and that I&C meters can remain in service until normal end-of-life requires their replacement. We have also assumed that domestic meters remain under tariff cap price control while charges for I&C meters will be governed by market forces.

NGG currently retains a dominant position in the I&C sector, with a market share of approximately 75% of installed assets. However, in recent years a majority of all new and replacement non-domestic meter installations have been undertaken by our competitors. We have also seen displacement of I&C meters where customers believe a more commercially attractive option is available from competitors. We believe this demonstrates the maturity of competition in this market sector. Stakeholder responses to the recent Ofgem consultation confirmed that other market participants are confident that the services currently available in the market would remain available after the transition to smart metering had commenced, and at competitive market rates.

We would therefore suggest that competition is already effective in the non-domestic metering market and that explicit regulatory controls beyond normal competition law requirements are no longer necessary. However, if regulatory oversight is still considered necessary we would propose that we demonstrate this by continuing to share with Ofgem on a confidential basis the methodology that we use to determine charges for I&C services.

# 3 Pricing Model approach

**Q1:** Do you believe that competition is already effective in the I&C market? What, if any, regulatory controls do you think are appropriate?



## 3.2 Tariff caps and regulatory price controls

The levels of NGG's metering charges for domestic meters are regulated by a price control set by Ofgem and are as detailed in Special Condition E19 of NGG's Gas Transporters Licence. The charges must not exceed tariff caps set against four key services, three of which are undertaken by NGM:

- Annual rental for provision, installation and maintenance of domestic credit meters
- Annual rental for provision, installation and maintenance of prepayment meters
- Transactional Charge for domestic credit to prepayment meter exchanges

Regulated prices (tariff caps) are set based on the costs to deliver the services needed and an appropriate rate of return on the agreed RAV, and are adjusted each year by inflation. Other, non-tariff capped, charges are regulated through a non-discrimination condition in NGG's Licence (Standard Special Condition A43). Regulatory oversight of our I&C business is currently governed by this non-discrimination condition, working in conjunction with the regulation of domestic metering services as set out in Standard Special Condition A10.

NGG's meter rental charges are made up of three component parts:

- **Provision** – charges reflect depreciation costs and an allowance for a return on the value of the meter asset on an annualised basis. Credit meters are assumed to depreciate over twenty years and prepayment meters over ten years. Ofgem acknowledge that the smart meter roll-out will inevitably impact on these asset lives but an accurate projection cannot be made without detailed knowledge of likely traditional meter displacement rates.

- **Installation** – charges reflect the cost of installing the asset and any associated equipment, predominantly made up of direct labour costs and additional costs such as transport
- **Maintenance** – charges reflect planned and unplanned maintenance costs and the labour costs associated with exchanging faulty meters but exclude replacement of the meter beyond the expected asset life. They reflect service provider and material costs, plus an uplift reflecting support costs, e.g. the costs for providing the contact centre, logistics and other administrative processes multiplied by the expected job frequency per meter per year.

As reductions in traditional meter population densities occur, changes to transport and support costs will likely result in a higher cost to serve per meter unless significant efficiency savings can be found.

In the past a significant number of stakeholders have acknowledged the importance of prepayment metering (PPM) services, especially to certain sectors of the market. The level of charges to customers using PPMs has also often been a subject of concern. In our initial modelling we have assumed that the cross-subsidisation between domestic credit meters (DCM) and PPM meters remains in place. The tariff cap calculations we have utilised in our indicative pricing model assume that the PPM tariff caps remain



consistent with the current price control and that any amendment to the overall revenue will be implemented via a change to the DCM tariff cap.

Charges for regulated services need to be set at a level to support the provision of efficient and reliable services our customers and consumers

can depend on. We are committed to supporting the transition to smart metering whilst maintaining availability of efficiently operated traditional metering services. The initial modelling outlined in this document is based on these assumptions.

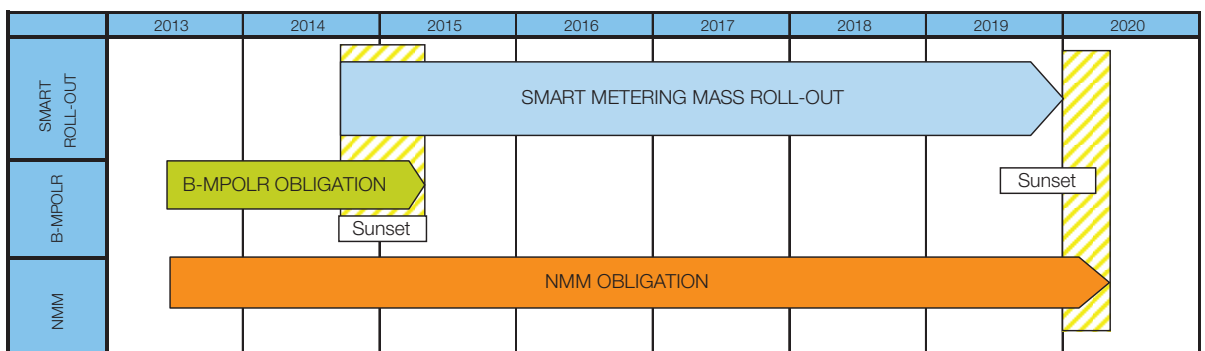
**Q2:** Do you agree that the retention of tariff caps remains an appropriate approach to regulating domestic metering charges?

**Q3:** Do you agree that adjustments should be made only to the domestic credit meter tariff cap and that the tariff cap for prepayment metering should continue to be constrained in line with the current price control?

### 3.2.1 Duration of new obligations or pricing restrictions

Ofgem have confirmed their intention to introduce licence changes in 2013 to facilitate the introduction of the B-MPOLR and NMM obligations. Both will have a sunset clause to link their end date to key events in the smart metering programme, determined by the Department of Energy and Climate Change Smart Metering Implementation Programme (DECC SMIP).

We expect the B-MPOLR and NMM obligations, together with their respective sunset clauses, to link to the expected smart metering mass roll-out period in the following way:



The period we have utilised for the basis of our pricing model assumes that the price control period will run from 01 April 2013 to 31 March 2020.

## 3 Pricing Model approach



### 3.2.2 Backstop Meter Provider of Last Resort

We expect the B-MPOLR obligation to commence during the summer of 2013, based on the timeline detailed by Ofgem in July's Decision document. The obligation would then remain in place until the start of the mass roll-out of smart meters begins, i.e. the implementation date of the new supplier licence condition requiring all new and replacement meter installations to be smart.

The B-MPOLR obligation will require us to meet any reasonable request by a relevant Distribution network to provide, install and maintain a traditional domestic gas meter. Other Distribution networks will retain their MPOLR obligations but may prefer not to undertake meter installations themselves, requiring NGG as the B-MPOLR provider to undertake the installation and the ownership of the new asset instead. The charges for services provided under the B-MPOLR obligation would be subject to a tariff cap, ensuring traditional meters are provided and maintained effectively throughout the transition to smart metering and at an appropriate cost. The type of meter installations requested via the B-MPOLR obligation will remain an important consideration – prepayment meters are generally more expensive to install and maintain than credit meters so the ratio in the overall meter population will have an impact on our pricing model. Regarding any new meters fitted after the B-MPOLR obligation is removed, we would expect that the tariff cap is also lifted, however, the rental charges for meters installed prior to that date would remain under the tariff cap control.

Following the commencement of the mass roll-out of smart meters, a sunset will occur to allow the transition to the new supplier obligations, and the B-MPOLR and MPOLR obligations on gas Distribution networks will fall away. Currently, Department of Energy and Climate Change (DECC) have indicated this is expected to commence in the third quarter of 2014. In our

modelling assumptions we have assumed that both the MPOLR and B-MPOLR obligations will cease with effect from April 2015. This sunset date allows for both a reasonable transition period and for any potential slippage to the start of the mass roll-out phase.

The number of installation requests that will be generated by both the MPOLR and B-MPOLR obligations remains uncertain at this time. The exact commencement date for the start of the mass roll-out of smart meters is not yet clear and we appreciate that stakeholders may wish to adopt differing strategies for traditional metering. Our approach is therefore based on ensuring we have the capability and capacity to meet estimated future demand, delivering services to the quality and safety standards expected.



### 3.2.3 National Metering Manager

NGG will also be asked to undertake the role of National Metering Manager (NMM). Given that the NMM role is linked to the implementation of the B-MPOLR obligation, we expect this to commence in the summer of 2013 in line with the dates Ofgem have outlined in their July RoMA Decision document.

The NMM role entails the ownership and maintenance of any meters fitted under the B-MPOLR obligation, together with the ongoing maintenance of our existing traditional meters. Ofgem has also proposed that any traditional meters fitted as a result of PEMS jobs would be eligible for adoption by the NMM for ongoing maintenance prior to displacement. The NMM will also be expected to offer terms for adoption of other gas Distribution networks' or meter owner's existing traditional meters. Any transfer arrangements would be undertaken based on a commercial basis but through a transparent and non-discriminatory process. We would propose that a mechanism is established that balances technical requirements (such as the provision of data to specify meter make, model, location, existence of warranties and maintenance history amongst other factors) and commercial requirements to enable an appropriate value to be agreed for both the asset transfer and for the future contractual arrangements for use of those assets. However, there remains a level of uncertainty regarding the number of meters which may be transferred to the ownership of the NMM

and an inherent risk regarding the condition and location of these assets.

We agree that the consolidation of traditional metering services facilitates an efficient and effective transition to smart metering, protecting consumer interests and maximising potential economies of scale. It will also provide options for Distribution networks to determine their approach to the management of their residual traditional metering assets in preparation for the start of the supplier-led smart metering roll-out.

The NMM role differs from the B-MPOLR obligation in that it will remain in place for the duration of the smart meter roll-out. The sunset for this obligation will therefore be linked to the end-date of the mass roll-out stage, rather than the start-date. The forthcoming smart metering mandate is expected to require that the vast majority of smart meters must be installed by the end of 2019. We therefore expect the NMM role obligation to fall away by 1 April 2020, in line with the new financial year.

**Q4:** Do you agree with our descriptions of the B-MPOLR and NMM obligations and assessment of their likely duration?

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### 3.3 Traditional domestic meter displacement rates

Several of the key assumptions we have used to develop our pricing model impact on the level of tariff cap that we propose. However, our analysis has shown that variations in the rate of smart meter roll-out have the greatest impact.

The effects of the smart meter roll-out can be simplified into two areas; premature displacement of traditional meters and potential ongoing service costs. The faster the rate of displacement, the greater the necessary change to tariff cap levels required to reflect the accelerated depreciation of traditional domestic metering RAV by 2020. The modelling has to consider that some assets, particularly those new and replacement meters yet to be installed under the POLR obligations, will have very short service lives. The displacement of traditional meters will also affect the duration and scale of the supporting services that are required to support these assets.

There remains some uncertainty regarding the exact start date and the profile for the rate of traditional meter displacement. We anticipate that a residual traditional meter population may remain in situ at the end of the roll-out period, although the actual size is difficult to predict. Consumers will not be obliged to accept a smart meter and some properties will prove difficult to access. Recent trials of the signal frequency options for the transmission of consumption data has also indicated that coverage in some areas is difficult to sustain, meaning smart meters may only be operable in “dark” mode, operating effectively as a traditional meter. Without the benefits that remote data and tariff options can provide, to both supplier and consumer, this creates a disincentive in these areas to undertake an exchange to a smart meter.

We have considered the various assessments made by DECC and are committed to ensuring that our modelling is consistent with achievement of substantial completion of the roll-out by the end of 2019. In this regard we have noted the Smart Metering Implementation Programme Update issued by DECC in April<sup>3</sup> and also taken into account the recent statement of Charles Hendry, former Minister of State for the Department of Energy and Climate Change, that some 97% of smart meters should be in place by the end of 2019.

Our pricing model is based on three scenarios produced by DECC in their Impact Assessment, detailing a Lower bound-case, Central-case and Higher bound-case for the rate of traditional meter displacement. We believe that the Lower bound-case is now the most likely scenario and that the fast (and earlier) roll-out scenario is very unlikely. We have used the smart meter roll-out to calculate the traditional meter displacement recognising that other factors such as asset condition also drive replacement of meters. In the near term, prior to the mandatory smart meter deployment, we expect these other factors to persist although after 2015 the mandatory delivery of smart meters is dominant.

<sup>3</sup> Programme update April 2012 – available via <http://www.decc.gov.uk/assets/decc/11/consultation/smart-metering-imp-prog/4938-smart-metering-imp-prog-update-apr2012.pdf>

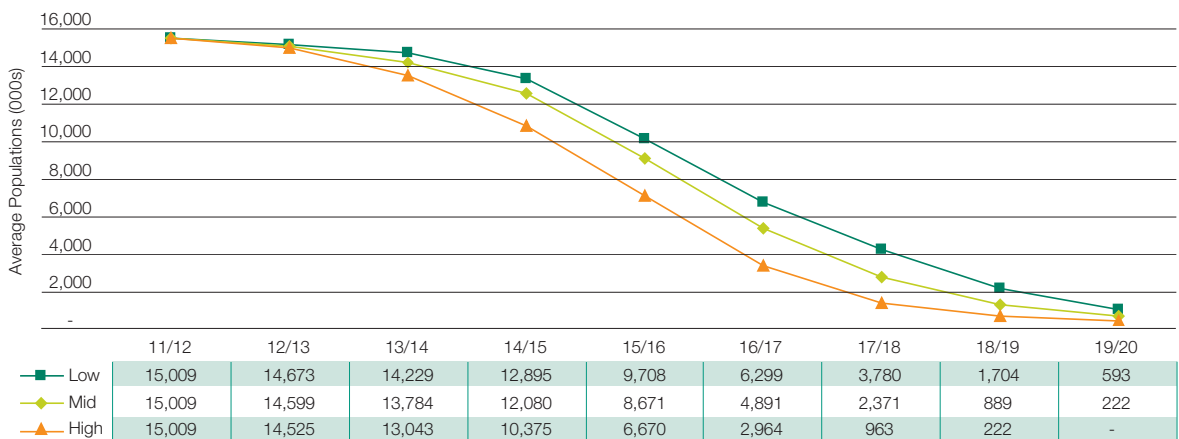
<sup>4</sup> DECC Impact Assessment – Smart meter rollout for the domestic sector (GB) August 2011 – Available via <http://www.decc.gov.uk/assets/decc/11/consultation/smart-metering-imp-prog/2549-smart-meter-rollout-domestic-ia-180811.pdf>

**Table 1**

Smart meter installation – Taken from Table 13 in DECC Impact Assessment – Smart meter rollout for the domestic sector (GB) August 2011<sup>4</sup>.

| % Meters Installed | Lower bound | Central case | Higher bound |
|--------------------|-------------|--------------|--------------|
| Dec 2016           | 49%         | 57%          | 70%          |
| Dec 2017           | 66%         | 77%          | 90%          |
| Dec 2018           | 83%         | 91%          | 97%          |
| Dec 2019           | 94%         | 97%          | 100%         |
| Dec 2020           | 98%         | 100%         | 100%         |

These displacement rates when applied to the existing NGG traditional meter portfolio and converted into financial years produce the following projected average meter populations:

**Average Populations based on DECC Smart Displacement Scenarios**

The DECC displacement estimates start from December 2016, during the first full financial year following the expected implementation date of the supplier obligation to fit smart meters for all new and replacement meter installations. We have included projections for the years from 2012/13 to 2015/16 based on our own estimates of displacement rates during these early years.

In our pricing model, the same displacement profile has been applied to both DCM and PPMs. The impact of new installs and exchanges has also been factored into the meter populations,

which may mean that the population proportions and displacement ratios may differ slightly by DCM and PPM to accommodate the installation or exchange volumes. However, we have assumed that the displacement rate of DCM and PPM meters will be proportional to the overall population and that neither group of meter will be targeted for prioritised exchange.

The table below illustrates the effect of the differing DECC displacement rates on the DCM rentals. Note that all other factors are held constant to demonstrate the sensitivity of the

## 3 Pricing Model approach

calculations to the displacement rate. In these illustrative calculations the tariff cap is based on a RAV valuation consistent with Ofgem's 'option 3' method. In this illustration the PPM tariff cap is retained at the current level regardless of the smart meter deployment rate.

**Q5:** Do you consider our use of the DECC Lower bound-case for meter displacement rates to be reasonable? Is there any basis for assuming any other displacement rate and if so, why? Do you think that the roll-out will specifically identify particular meter types for early displacement and if so why?

**Table 2**

Indicative effect of smart roll-out on domestic meter tariff cap (values shown at 2012/13 equivalent rates)

| DECC scenario  | Lower bound | Central case | Higher bound |
|----------------|-------------|--------------|--------------|
| DCM tariff cap | £17.02      | £19.54       | £24.63       |
| PPM tariff cap | £37.49      | £37.49       | £37.49       |



### 3.4 Regulatory Asset Value (RAV) and rate of return

The RAV is a measure of the value of the capital employed in the regulated business and determines the value against which the rate of return can be set. Each year, the RAV is adjusted to account for further investment and reduced by regulatory depreciation.

In their July RoMA Decision document, Ofgem again confirmed that a commitment to the RAV is a core principle of incentive-based regulation and underpins their approach to regulation across the entire network sector. The opening RAV Ofgem have specified and its allocation between the Domestic and I&C businesses therefore represents an important element of our proposal.

Whilst the allocation between the two business activities is important, our initial analysis indicates that a greater degree of impact is caused by variations in the rate of meter displacement. The same is true of the rate of return – the basis for retaining this at a level consistent with the Distribution business is further discussed in Section 3.4.3.



### 3.4.1 RAV assessment

In the 2002 Price Control Review, Ofgem confirmed that the allocation of RAV to metering (both Domestic and I&C) was £1.5 billion as at 31 December 2001 (in year 2000 prices). Using the regulatory depreciation policy to roll this value

forward, Ofgem have also confirmed that the total metering RAV currently stands at around £1.0 billion in current prices and this is the value of the overall metering business that we have used to model our pricing proposals.

### 3.4.2 RAV allocation

In allocating the RAV between the Domestic and I&C businesses, Ofgem have stated that the right balance in reaching the appropriate levels of tariffs should be based on three objectives:

- Avoiding undue discrimination between domestic and I&C customers
- Promotion of effective competition in the I&C market
- Facilitating the smart metering roll-out

We believe competition is already effective in the I&C market and that the relationship between domestic and I&C tariffs should recognise the different circumstances now operating in these markets. Customers for I&C metering require enhanced services and in addition there is significant downward pressure on rental charges. National Grid is responding positively to these challenges and engaging with customers in commercial discussions. In the near term, until regulatory controls are removed, National Grid will continue to apply a similar fundamental methodology in the calculation of domestic and I&C rental charges and we believe this satisfies the regulatory requirement to avoid undue preference between classes of customers.

Our pricing proposals will demonstrate to Ofgem how the methodologies we have considered impact on business valuation, on domestic tariffs and on our assessment of I&C tariffs and services. At the core, rental charges represent repayment of

the initial investment in the business coupled with an efficient level of sustaining cost for provision of services. Within the calculation, we have made assumptions regarding the expected lives of individual assets, the rate of return (in effect the rate of interest on capital employed), the likely volumes and costs of maintenance activities and the costs that supporting essential business functions will entail.

Of the RAV allocation methodologies that Ofgem outlined in their July Decision document, we have based our initial pricing model and the illustrations in this document on methodology 3 – the pro rata allocation of the 2002 metering RAV based on depreciated replacement cost values and rolled forward. Further detail on how we have applied this approach is included in Section 4 of this document, where we set out our initial price modelling.

Ofgem suggested five different methods to apportion the RAV and our initial views are set out below. We intend developing a financial analysis against each of the candidate methods and will share the detail of these with Ofgem in due course.

# 3 Pricing Model approach

## 3.4.2 RAV allocation (continued)

**Table 3**  
Analysis of alternative methods to allocate RAV.

| Ofgem's suggested RAV allocation methodology   | National Grid Comments  |
|--|---|
| <p><b>1. An allocation that preserves the current relationship between tariffs for domestic and I&amp;C metering services</b></p>  | <p>We do not support the use of this methodology as it is inconsistent with the domestic revenue equation set out in Ofgem's July Decision document. We have assumed that I&amp;C assets will remain in service beyond 2019 as they are less affected by the smart meter mandate. The calculation under this methodology would either fail to allow for the depreciation of the domestic RAV by 2020 in line with Ofgem's analysis of domestic metering or would imply that tariffs in I&amp;C metering should be set unsustainably high to accommodate an artificially rapid (and unrealistic) depreciation.</p>   |
| <p><b>2. A pro rata allocation of the 2012 metering RAV based on the current depreciated replacement cost values of the domestic and I&amp;C meters</b></p>  | <p>A fundamental analysis against this method would require a detailed assessment of the current replacement costs for all types of meter assets. There is a risk that this analysis would need to be subjective since it is difficult to get accurate data for the replacement costs for some of the more complex I&amp;C sites where replacement of the installation is undertaken on an infrequent basis with procurement prices specifically provided only at the time of purchase and design and labour costs in accordance with technical standards then prevailing. As an alternative, the replacement cost might be estimated from historic values where these are available along with discrete new quotations where historic data is inappropriate for this purpose. There may be difficulties in obtaining independent validation of the RAV calculation given the number of assumptions and cost predictions implicit in this method.</p> |
| <p><b>3. A pro rata allocation of the 2002 metering RAV based on the depreciated replacement cost values of the domestic and I&amp;C assets in 2002, and rolled forward separately using the same depreciation and capitalisation policies adopted for the metering RAV as a whole</b></p> | <p>This allocation was used as the RAV split when formula (business) rates were removed from the metering price control. It has therefore been subject to some scrutiny by Ofgem in the past. Although this represents a precedent for the use of methodology 3, the choice of methodology for that purpose was not informed by the broader policy issues relevant to separating the two parts of the business for price control purposes. Furthermore, the date of 2002 would have been practically contemporaneous at the time of carrying out the analysis for that decision, whereas it is not contemporaneous for the present purpose.</p> <p>This methodology is readily available and we have therefore used it in this document to illustrate the effects and sensitivity of the calculations to variances in other factors.</p>  |



|  |   |
|--|---|
| <p><b>4. An I&amp;C RAV consistent with the depreciated replacement cost value of I&amp;C meters, taking into account realistic depreciation lives, leaving the residual RAV with domestic.</b></p>  | <p>At its heart this method requires the same assessment as methodology 2 and is thus similarly subjective. The difference with this method is the replacement costs for domestic meters would not need to specifically determined because the domestic RAV would be calculated by subtracting the I&amp;C RAV from the total metering RAV.</p>   |
| <p><b>5. An allocation consistent with tariffs for I&amp;C metering services being at a competitive level, neither too high to compete nor so low that competitors will be unable to compete, leaving the residual RAV with domestic metering.</b></p> | <p>Ofgem’s proposal focuses on the future net revenues that might be available from the I&amp;C business. However, a full analysis of all future revenues would require considerable speculation regarding the potential growth of National Grid’s I&amp;C business, the costs for such investments and the associated costs for its operations.</p> <p>A simplifying alternative to evaluate the value of the current RAV takes only existing assets with I&amp;C rental rates set at a level to mitigate premature removal of those assets. Whilst many assets do serve for their full expected life (based on an average of 20 years in service) we are seeing increasing competitive displacement in this sector so the assumptions may slightly overstate the remaining asset lives. Despite this we believe it is a ‘fair value’ approach to valuing those already existing I&amp;C assets, it avoids the need to speculate on future investments and we believe provides a fair assessment and less subjective view of the current I&amp;C metering RAV.</p> |

**Q6:** Which of the RAV allocation methodologies described do you believe is the most appropriate? Please indicate your reasons if a preference is expressed.

## 3 Pricing Model approach



### 3.4.3 Rate of return

In 2002, the rate of return used in calculating tariff caps for the metering business was set at 7%. This was determined by taking the 6.25% rate allowed for the distribution business and adding 0.75% to recognise the additional financial risks inherent in metering, at that time predominantly related to emerging competition.

Ofgem's financial analysis of National Grid's metering profits and costs since 2002 has shown that the rate of return has broadly run at this anticipated level and National Grid have not over-earned historically. We believe that the weighted average cost of capital (WACC) determined for the funding of Distribution businesses provides an appropriate benchmark for the rate of return required for utility metering. We have therefore utilised a rate of return which is derived from the NGG RIIO-GD1 proposed rate of 4.8% (post tax real) and maintains the relationship with the methodology established in 2002. The calculation relating to our proposed rate of return of 6.5% (pre tax real) is set out in more detail in Section 4.1 but this value remains subject to change, depending on the RIIO-GD1 settlement being reached and as a result of this pricing consultation.

We maintain that metering still carries a greater risk than the network activity, largely due to the uncertainties inherent in the transition to smart metering. The potential transfer and adoption of traditional assets to the NMM portfolio is yet to be established and this creates financing risks. The smart metering implementation timeline remains unclear, as does the displacement rate at which traditional meters will be exchanged. These variables remain outside NGM's control, with the timeline being set by DECC and meter displacement rates supplier-led. Significant variations from projected displacement rates (such as a slower rate of exchange) are likely to result in additional costs being incurred by our business.

We would expect these to predominantly relate to additional staffing levels and infrastructure necessary to deliver services.

Inherent in a tariff cap formula is an assumption that costs can be removed from the business as the size of the meter population reduces. We remain committed to seeking efficiencies and reducing our costs wherever possible, without compromising service delivery or safety. We recognise that not only will it be necessary for us to manage out costs as the size of NGG's meter population diminishes but that in addition we will need to find additional efficiencies to offset the loss of economies of scale and scope in our operations. We therefore propose that the determination of rate of return to be used in our pricing model remains similar to the prevailing method and continues to include a risk premium in recognition of the significant impact that changes outside our control may have on our business.

**Q7:** Do you agree that the regulatory return allowed for the Distribution business remains the most suitable basis for establishing the rate of return for metering or should a higher rate be applied?

### 3.5 Transactional workloads and requirements for other services

Consistent with the start of the mass roll-out of smart meters, we expect our customer-requested workloads to decline in the years leading up to 2015 and cease altogether thereafter.

Policy Meter Exchange (PME) volumes will reduce in the years to 2015 as more gas suppliers undertake their own exchanges to install smart meters. Throughout the transition to smart metering, we will utilise our Holistic Asset Management (HAM) approach to ensure that most vulnerable traditional installations are prioritised for exchange. Section 4 of this document sets out in more detail the assumptions we have made regarding workloads and requirements for services.

We currently provide a range of other services which our customers clearly value, as evidenced in the scores these aspects of our business receive in our half-yearly customer satisfaction survey. These include query investigation following asset portfolio exceptions generated during Supplier transfer activities, investigating and responding to complaints, assisting customers in bringing forward jobs with certain criteria and the provision of a national call handling service for both domestic and I&C communities. In addition to this, we also dedicate a focused service through contract, customer and operational management to ensure the needs of all our stakeholders are met.

Our initial modeling assumes that customers will expect us to continue to provide high quality support services to manage traditional meter stocks. We want to understand our customers' requirements for such services as query handling, contact management and delivery of overall standards, as well as for transactional activities such as new installations and requested exchanges. Clearly, there will remain a close link between the infrastructure needed to deliver these services to the required levels and also to the number of traditional meters yet to be displaced. Projecting the levels of cost and expenditure to deliver requested levels of service is central to our model. We therefore intend to consult on this matter to understand the expected levels of service the market wishes us to maintain.

**Q8:** What requirements do you have for services to support the management of traditional meters (query handling, call management, complaint handling)? What level of service would you expect to receive?

## 3 Pricing Model approach



### 3.6 Meter maintenance

The B-MPOLR and NMM obligations Ofgem have outlined place a responsibility on National Grid for the ownership and maintenance of meters provided and installed, as well as commercial agreements for other Distribution networks' existing traditional assets and the adoption of meters installed as a result of PEMS.

Our model therefore contains an expectation of the level of activity and costs to our business of maintaining the estimated volumes of traditional meters prior to displacement.

Tariff caps are structured to include both meter installation and maintenance. It remains the responsibility of the licensee (NGG) to ensure that the meter is maintained to an appropriate standard and the installation remains safe and fit for purpose.



### 3.7 Post Emergency Metering Services (PEMS)

PEMS is a commercial service provided when gas transporters have resource and materials to undertake the work and is currently provided for through commercially agreed contracts. The PEMS service applies where the network operator has attended for a gas emergency and found that a meter exchange is necessary to safely restore the gas supply. The gas supplier is free to choose whether to dispatch their own preferred meter provider or to instruct the network operator to undertake the meter exchange.

It is not currently the intention of National Grid to offer the installation of smart meters or a service to undertake PEMS for these. However, we support the view that PEMS for traditional meters remains an essential service through the transition to smart metering and will continue to provide PEMS services for traditional meters. We have assumed in the two years after the start of the smart meter mandate there will remain a small number of instances where a traditional meter is fitted during a PEMS visit. This anticipates that the priority in these instances will be to quickly restore gas supply. In the later years the delivery mechanisms for smart meters will be able to respond sufficiently quickly and a smart meter

can be fitted. These services will continue to be offered on a commercial basis, as they are today.

Ofgem have indicated in their recent RoMA Decision document that traditional meters installed through PEMS activities should be eligible for adoption by the NMM for the purpose of ongoing maintenance. We anticipate the use of a similar mechanism to the asset transfer requirements discussed in 3.2.3 would provide a suitable way to manage the adoption and a transparent and non-discriminatory method of agreeing a fair commercial value. Once adopted, these assets would be subject to similar regulatory tariffs for ongoing charges.



### 3.8 Uncertainty

We have identified that there are a number of areas where there is still some uncertainty. Whilst we expect some of the questions will be resolved through this consultation exercise there will be others such as the rate of smart meter roll-out where better information may not be available until some time in the future. The existing regulatory regime allows for modest variations to the tariff control to accommodate marginal changes from base assumptions.

The most significant factor in setting a level for domestic metering tariff caps appears to be the rate and completion of smart meter roll-out. We would suggest that the most appropriate mechanism for dealing with this uncertainty

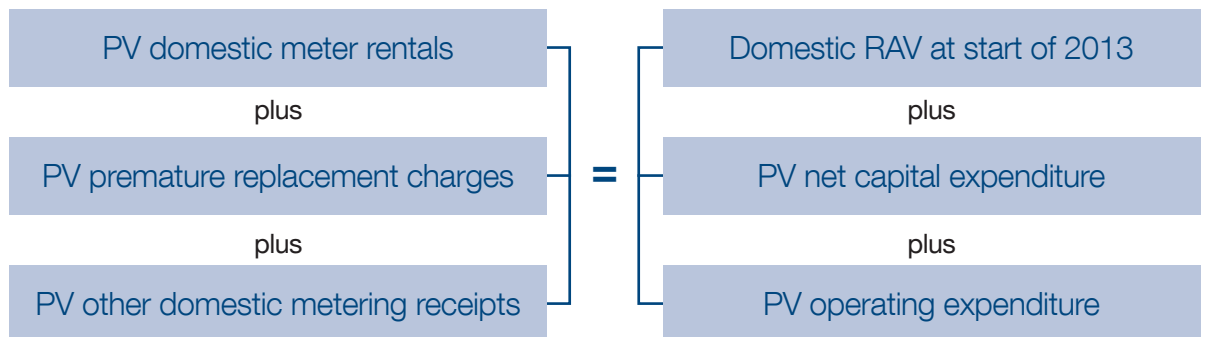
would be to revisit the calculations in 2018 to determine whether there has been a material deviation from the fundamental assumptions and if necessary to then consider whether any adjustment is necessary.

## 4 Our Pricing Model and initial assumptions



Ofgem's RoMA Decision document set out the Domestic revenue requirement equation that should be used for the pricing consultation. This section sets out more detail on the cost elements that drive the overall determination of the domestic metering tariff caps. A summary of the financial information is included in this document. Ofgem have been provided with a more detailed financial model which includes the tariff cap calculations. This model contains commercially sensitive information and therefore will not be shared with other stakeholders.

### Domestic revenue requirement equation



The total revenue requirement is based on the opening Regulatory Asset Value (RAV), plus the Present Value (PV) of Operating Expenditure (OPEX) and Capital Expenditure (CAPEX) for the review period. For NGG, the revenue requirement will be met by meter rentals, Premature Replacement Charges (PRCs) for the New and Replacement MSA contract and Other Receipts

in the form of upfront transactional charges for new installations and exchanges. The level of tariff cap proposed assumes that prepayment meter rentals continue to be indexed as they are today. Customers signed up to alternative MSA contracts will continue to enjoy the reduced rentals prices included in those contracts rather than the revised tariff caps calculated.



#### 4.1 Rate of return

The initial financial modelling assumes a rate of return of 6.5% (discussed in section 3.4.3). This is based on a pre tax, real cost of capital of 5.77%, (equivalent to a Vanilla Weighted Average Cost of Capital (WACC) of 4.8% as proposed in National Grid Gas's RIIO-GD1 submission) plus a risk factor of 0.75% to reflect the uncertainty associated with metering activities.



#### 4.2 Domestic metering cost base and tariff caps – DECC Lower bound-case

The summary revenue requirement and supporting graphs used in our high-level pricing model are based on the DECC Lower bound-case for traditional meter displacement rates.

The allocation of RAV here is calculated on a pro rata allocation of the 2002 metering RAV based on the depreciated replacement cost values of the domestic and I&C assets in 2002, and rolled forward separately using the same depreciation and capitalisation policies adopted for the metering RAV as a whole (Methodology 3 of the RAV allocation options proposed by Ofgem in the RoMA Decision document).

We have assumed that cross-subsidisation between DCM and PPM meters remains in place and also that that the PPM tariff caps remain at the current level, with any amendment to the overall revenue implemented via a change to the DCM tariff cap only.



#### 4.2.1 Analysis of Domestic Operating Expenditure and Capital Expenditure

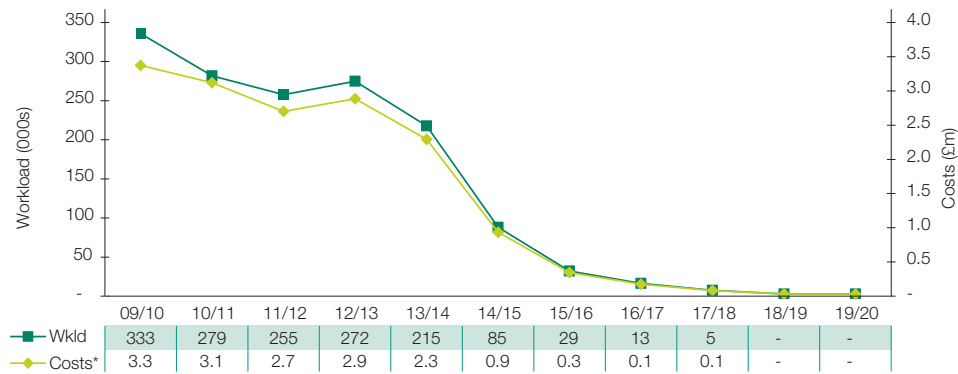
The graphs that follow are based on the DECC Lower bound-case for the Smart roll-out and provide historical information relating to costs, plus the projections used for the period (April 2013 to March 2020) our pricing model is built on.

The majority of our operational costs are based on 2011/12 actual costs per meter and are extrapolated forward in line with expected workload and population projections. In reality, these costs will not be completely variable and

may increase on a unit basis as volumes decline. The projected costs therefore implicitly include efficiency savings to offset anticipated increases in costs per meter over time.

# 4 Our Pricing Model and initial assumptions

## Operational Overheads – Related to installations/exchanges

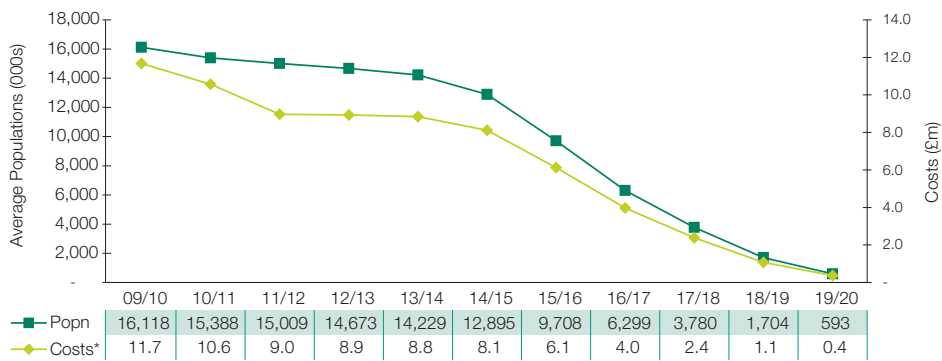


\*All costs shown at 2011/12 equivalent

Domestic meter installation volumes are forecast to be slightly higher in 2012/13 compared to 2011/12, mainly due to additional PME volumes carried over from 2011/12. Workload is expected to reduce rapidly from 2013/14 onwards as the

roll-out of smart meters accelerates. Our pricing model assumes that Domestic operational overheads associated with meter installations will reduce in line with workload.

## Operational Overheads – Ongoing



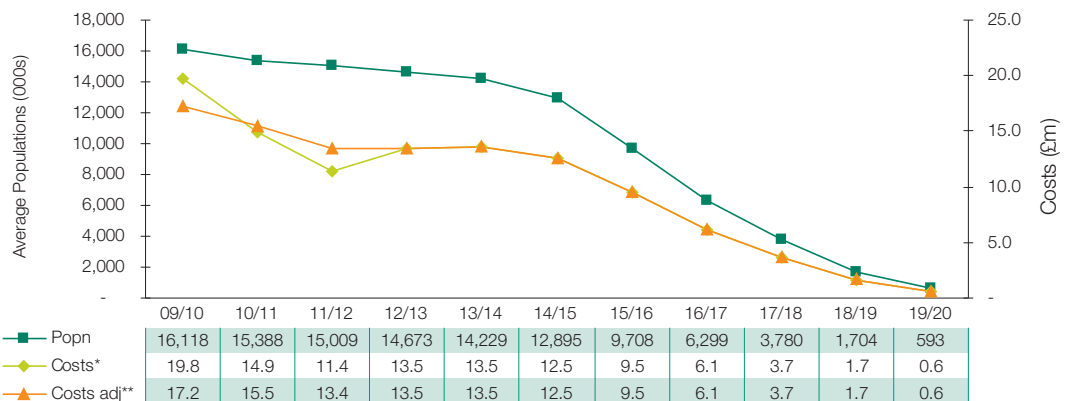
\*All costs shown at 2011/12 equivalent



Our pricing model assumes that the displacement of traditional meters will be spread proportionally across DCM and PPM populations. The model assumes that Domestic operational overheads associated with maintenance activities decline in line with average meter populations. However, as we expect proportionally more PPMs to be

installed than DCMs during the time until MPOLR is lifted<sup>5</sup> and as PPMs require more maintenance than DCMs, there is a slight resulting impact in the ratio of expected domestic maintenance costs.

### Meterwork Costs – Ongoing



\*All costs shown at 2011/12 equivalent

\*\*Adjusted costs take the average attend to costs for three year period to 2011/12 then adjusted for population volumes (to remove the weather related fluctuations in the actuals)

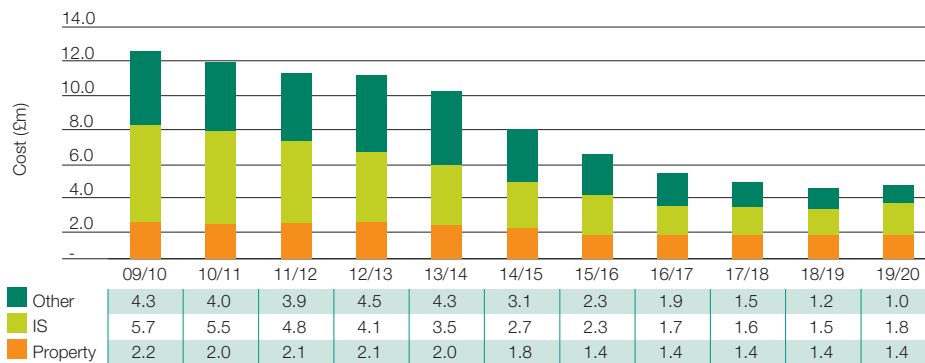
Ongoing costs related to maintenance and asset management activities are expected to fall largely in line with meter populations. A significant proportion of the costs are related to attending to prepayment meters. An adjustment has been made to rebase the 2012/13 figure for PPM 'Attend-to' visits, rather than extrapolating the 2011/12 figure. This is necessary because the abnormally mild winter experienced in 2011/12

resulted in many fewer 'Attend-to' visits than in any year historically. To obtain a better estimate the 2012/13 figure is rebased to take the average number of 'Attend-to' visits for the three years ending 31 March 2012 and this ratio is extrapolated forward in line with PPM populations. There is also a slight impact in the near term due to proportionally more PPMs being installed than DCMs.

<sup>5</sup> The historic ratio between credit and prepayment meters is approximately 10:1. Currently the installation ratio is around 1:1 and in fact the net population of prepayment meters is increasing as installations exceed removals.

# 4 Our Pricing Model and initial assumptions

## Central Costs

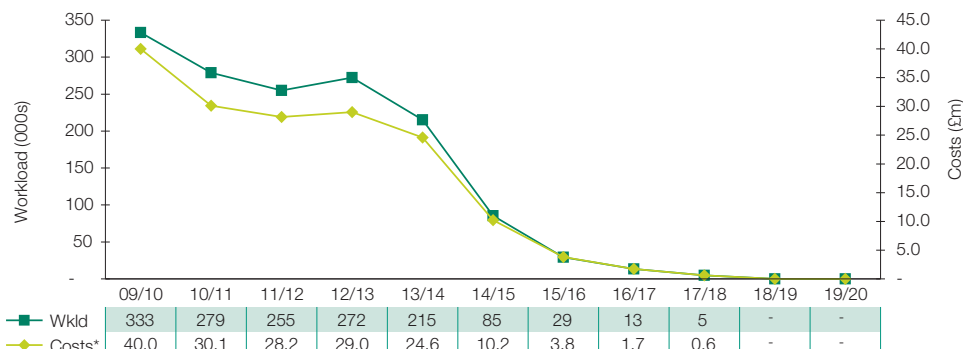


\*All costs shown at 2011/12 equivalent

The analysis here shows central costs attributable to domestic metering. These overheads largely consist of property, IS costs and support functions such as Finance, Billing, Change Management, HSE and Regulation. Due to the nature of these costs, they are not variable and are generally not driven by workload or populations. However, we have made an assumption in our pricing model that these costs will be reduced and property costs rationalised wherever possible, with central

costs more than halving over the modelling period. The slight increase in 'Other' costs in 2012/13 is mainly related to additional resource associated with projects to optimise I.T. systems which will allow functionality and licencing costs to be reduced in future. Beyond 2019/20, IS decommissioning costs will be required once the transition to smart metering is complete (but these are not currently included in the modelling).

## Capital Expenditure – Related to installations/exchanges

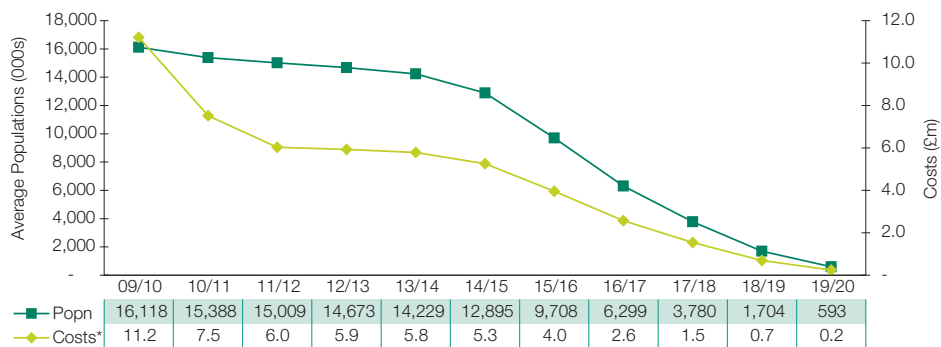


\*All costs shown at 2011/12 equivalent

National Grid still undertakes a significant amount of work to install new meters, to replace meters that are at end-of-life and to exchange meters where the customer requires different functionality, i.e. changing a credit meter for a prepayment meter. We forecast that this will change dramatically and capital expenditure relating

to meter installations (meter/kit/labour costs, etc) is assumed to decline in line with workload volumes and falls rapidly at the start of the smart meter roll-out. Note that our assumption is that we will not be required to ‘upgrade’ meter installations prior to the smart meter being fitted.

### Capital Expenditure – Regulator Replacements



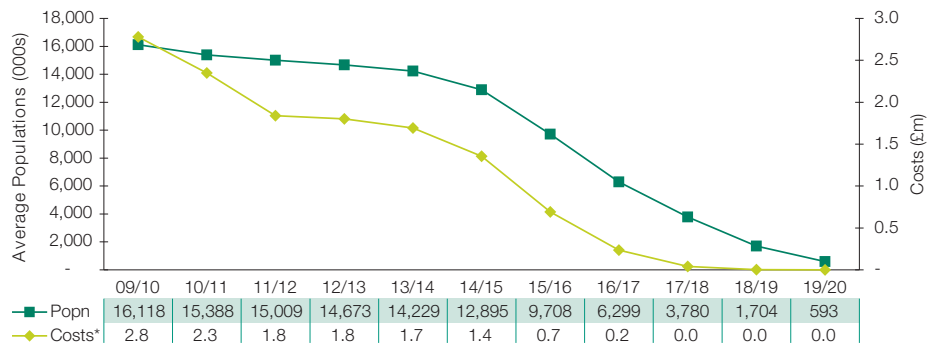
\*All costs shown at 2011/12 equivalent

National Grid has a policy, agreed with the HSE, to replace whenever found certain types of pressure regulator that do not comply with current industry standards. The work is undertaken by the gas transporters’ operatives when they are carrying out other works (not related to the meter) and the costs are charged to NGM. Replacements can also arise if a target regulator is found during a meter maintenance visit. Although the driver for

such replacements will persist we have assumed that the need to replace regulators will decline in line with traditional meter population because as smart meters are installed the associated regulators will also be replaced. These regulator replacements are a combination of PEMS regulator replacements and as a result of our “replace on find” policy when undertaking other meterworks.

# 4 Our Pricing Model and initial assumptions

## Capital Expenditure – PEMS Meter Adoptions

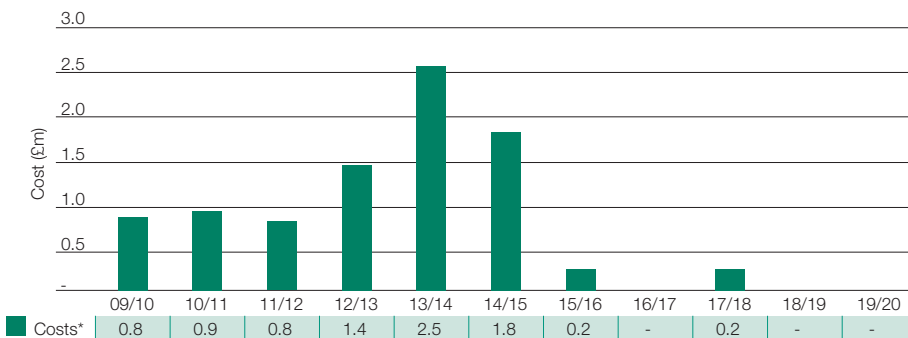


\*All costs shown at 2011/12 equivalent

It is assumed in the years after the start of the smart meter mandate there will remain a small number of instances where a traditional meter is fitted during a PEMS visit. This anticipates that the priority in these instances will be to quickly restore gas supply. In the later years the delivery mechanisms for smart meters should be able to

respond sufficiently quickly and a smart meter can be fitted. The need for adoption of PEMS meters may thus decline earlier than the reduction in meter populations. There remains uncertainty over the likely number of meters that the NMM may be requested to adopt.

## Capital Expenditure – IS



\*All costs shown at 2011/12 equivalent

The current IS systems supporting domestic metering have been in place since 2004 and investment in that IS infrastructure will continue to be necessary to optimise current systems and ensure they enable us to provide the services required by customers for the duration of traditional meter asset lives. In 2011 we commissioned Logica to undertake a review of our IS infrastructure to identify the most cost effective way to maintain our essential services. Significant expenditure is necessary in 2013/14 to facilitate mobilisation of a new meterwork service provider

and to ensure that the IS system is fit to last until 2019, enabling operational costs to be reduced in future years.

Given the projections of traditional meter populations, we expect the need for investment to continue into the mass roll-out of smart metering to undertake periodic upgrades. It should be noted, however, that our cost projections do not include any 'one-off' allowances for specific changes to industry data flows or processes.

**Q9:** Do you agree with our assessments of future workload and our views on the relevant drivers of workload? If you have alternative views please outline where they differ.

**Q10:** Do you anticipate any specific requirement for changes to industry data flows or arrangements for traditional meters?



# 4 Our Pricing Model and initial assumptions



## 4.2.2 Summary of initial modelling

The tables below summarise the results of modelling using the cost assessments and the specific scenario conditions of an allocation of RAV according to Ofgem's methodology 3 (domestic RAV calculated on a pro rata allocation of the 2002 metering RAV based on the depreciated replacement cost values of the domestic and I&C assets in 2002, and rolled forward separately using the same depreciation and capitalisation policies adopted for the metering RAV as a whole) and the DECC Lower bound smart meter roll-out.

### Summary Financials

#### Domestic revenue requirement equation

Allowed Return 6.50%

| £ms*                             | 13/14 | 14/15 | 15/16 | 16/17 | 17/18 | 18/19 | 19/20 | Total      |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|------------|
| Opex                             | 34    | 29    | 22    | 15    | 11    | 7     | 5     | <b>123</b> |
| Capex                            | 35    | 19    | 9     | 5     | 2     | 1     | 0     | <b>70</b>  |
| PV of Opex & Capex               | 67    | 43    | 26    | 16    | 10    | 5     | 4     | <b>171</b> |
| RAV as at 1st April 2013         |       |       |       |       |       |       |       | <b>731</b> |
| <b>Total Revenue Requirement</b> |       |       |       |       |       |       |       | <b>902</b> |

| £ms*                | 13/14 | 14/15 | 15/16 | 16/17 | 17/18 | 18/19 | 19/20 | Total      |
|---------------------|-------|-------|-------|-------|-------|-------|-------|------------|
| Meter Rentals       | 248   | 225   | 170   | 110   | 66    | 30    | 10    | <b>859</b> |
| PRCs                | 9     | 28    | 54    | 29    | 27    | 16    | 5     | <b>168</b> |
| Other Receipts      | 7     | 2     | -     | -     | -     | -     | -     | <b>8</b>   |
| <b>PV of Income</b> |       |       |       |       |       |       |       | <b>902</b> |

\* All shown at 2011/2012 equivalent costs

#### Proposed Tariff Caps (shown at 12/13 equivalent prices)

|  | Proposed | Current | Variance |
|--|----------|---------|----------|
| Domestic Credit Meter Rental per annum         | £17.02   | £16.07  | £0.95    |
| Prepayment Meter Rental per annum              | £37.49   | £37.49  | £0.00    |
| Customer Requested Exchange Transaction Charge | £76.43   | £65.73  | £10.70   |

In this scenario it is assumed that charges for I&C services will be determined by market forces where there is a general downward pressure on rental rates



### 4.3 Revenue Requirement and Tariff Caps – DECC Central-case

Using the same RAV allocation methodology as above, the summary below shows the impact on the required revenue and tariff caps should our tariff cap assessment be based on the DECC Central-case.

We have again assumed that cross-subsidisation between DCM and PPM meters remains in place and also that that the PPM tariff caps remain at the current level, with any amendment to the overall revenue implemented via a change to the DCM tariff cap only.

#### Summary Financials

##### Domestic revenue requirement equation

Allowed Return 6.50%

| £ms*                             | 13/14 | 14/15 | 15/16 | 16/17 | 17/18 | 18/19 | 19/20 | Total      |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|------------|
| Opex                             | 34    | 28    | 20    | 13    | 8     | 6     | 5     | <b>113</b> |
| Capex                            | 35    | 18    | 8     | 4     | 2     | 0     | 0     | <b>67</b>  |
| PV of Opex & Capex               | 66    | 42    | 24    | 14    | 8     | 4     | 3     | <b>160</b> |
| RAV as at 1st April 2013         |       |       |       |       |       |       |       | <b>729</b> |
| <b>Total Revenue Requirement</b> |       |       |       |       |       |       |       | <b>889</b> |

| £ms*                | 13/14      | 14/15      | 15/16      | 16/17      | 17/18     | 18/19     | 19/20    | Total      |
|---------------------|------------|------------|------------|------------|-----------|-----------|----------|------------|
| Meter Rentals       | 264        | 232        | 167        | 94         | 46        | 17        | 4        | <b>824</b> |
| PRCs                | 17         | 30         | 58         | 35         | 22        | 9         | 4        | <b>175</b> |
| Other Receipts      | 7          | 2          | -          | -          | -         | -         | -        | <b>8</b>   |
| <b>PV of Income</b> | <b>279</b> | <b>240</b> | <b>192</b> | <b>103</b> | <b>51</b> | <b>18</b> | <b>5</b> | <b>889</b> |

\* All shown at 2011/2012 equivalent costs

##### Proposed Tariff Caps (shown at 12/13 equivalent prices)

|  | Proposed | Current | Variance |
|--|----------|---------|----------|
| Domestic Credit Meter Rental per annum         | £19.54   | £16.07  | £3.47    |
| Prepayment Meter Rental per annum              | £37.49   | £37.49  | £0.00    |
| Customer Requested Exchange Transaction Charge | £76.43   | £65.73  | £10.70   |

Note: RAV value varies from lower bound scenario because more assets are displaced prior to April 2013

## 4 Our Pricing Model and initial assumptions

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### **4.4 Effect of different allocation of RAV between Domestic and I&C**

The financial summaries shown above are derived from the allocation of RAV based on a pro rata allocation of the 2002 metering RAV and calculated from the depreciated replacement cost values of the domestic and I&C assets in 2002. They are then rolled forward separately using the same depreciation and capitalisation policies adopted for the metering RAV as a whole (Methodology 3 of the RAV allocation options proposed by Ofgem in the RoMA Decision document).

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The other methodologies described by Ofgem will be modelled and we will share that analysis with Ofgem in due course. In considering the alternatives we will assess the robustness of each methodology and also take into account the views of stakeholders to question 6.

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# 5 Stakeholder consultation



We want to ensure your views are central to shaping the future of our business, the transition from traditional metering and our delivery of the B-MPOLR and NMM obligations.

It is important we understand your views on these vital questions to allow us to deliver balanced proposals for our role, both as the future NMM and as the largest asset owner and manager of traditional gas meters in the UK. It is also important for our regulator, Ofgem, to be confident that we have listened to our stakeholders' views in shaping the proposals we will put to them.



## 5.1 Form and duration of consultation

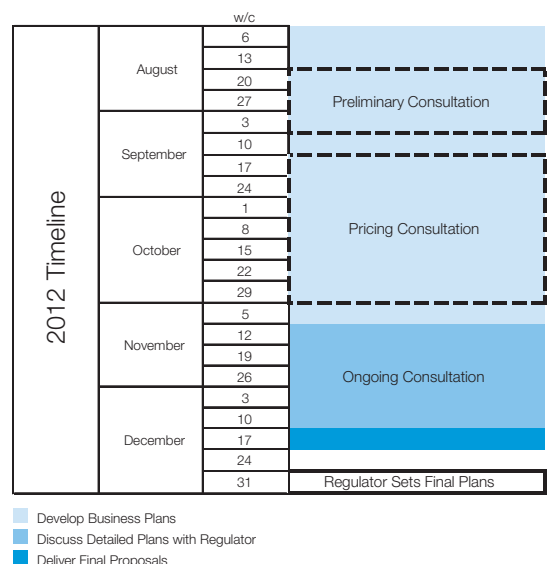
From the responses to our Preliminary Engagement questionnaire, you have indicated that your preferences for the Pricing Consultation Stakeholder Engagement activities are as follows:

- A single session to establish core principles and themes
- Workshops where stakeholders can test and debate issues central to the pricing model
- Bi-lateral meetings for individual or organisational discussion

Following our Launch Event on **Wednesday 19th September 2012**, we will be holding a series of group seminars to discuss our pricing proposals further. Some stakeholders stated that they would prefer to share their views with us in a closed meeting. These sessions will be arranged and conducted by Engage, the consultancy supporting us through this process. Members of the Engage team will arrange a suitable date and location for discussions. For those stakeholders that would prefer to offer their views in writing, the email address stated in section 6 'Next Steps' should be utilised.

We have planned for our Stakeholder Consultation period to remain open for six weeks and it will therefore run from **Wednesday 19th September** to **Friday 2nd November**. It is important that we have your views by this date to provide sufficient time to consider your comments before submitting

our formal proposals to Ofgem. As we finalise our pricing proposals and discuss them in detail with Ofgem, we will continue to remain available, should you have any further questions you may wish to ask us. Please note, however, that any views that you share with us after Friday 2nd November may not be considered for inclusion in our Pricing Proposals due to the tight timescales we are working to.



## 5 Stakeholder consultation

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### **5.2 Confidentiality**

We intend to include your views in the Pricing Proposals document we submit to Ofgem in December 2012 and we also intend to publish a summary document. If you would prefer that we did not share these views publicly, we will keep your response confidential and provide them only to Ofgem.

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This includes any materials we may collate from bi-lateral meetings, workshops or webinars you may participate in. Please ensure that you mark clearly any written documentation you provide or communicate your preference where it is collated by our team on your behalf.

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## 6 Next steps



### 6.1 Final pricing proposals and stakeholder feedback

During November 2012, we will be submitting initial pricing proposals to Ofgem for consideration and further consultation. We are aiming to deliver our final proposals by the end of December 2012. Ofgem will then consult on their findings on these proposals, prior to making any resulting licence changes.

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We intend to hold a Stakeholder Feedback session in January 2013 to share with you the basis on which our final proposals were developed. We will explain how and where your views have been included to shape the final output. Where we are able to, we will provide feedback on general areas of consensus and challenge, and our response to these areas.



### 6.2 Contact us

Thank you for taking the time to read this document. If you have any further questions regarding this document, our pricing approach or the forthcoming stakeholder consultation activities, please let us know. This document is also available on our website.

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**Email us:**

[ngm.priceconsult@nationalgrid.com](mailto:ngm.priceconsult@nationalgrid.com)

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**Write to us:**

Commercial & Regulatory Affairs Team,  
35 Homer Road, Solihull B91 3QJ

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**Call us:**

Abigail Cardall  
(Regulation Manager)  
0121 424 8397  
Kirsty Scott  
(Pricing Consultation Co-ordinator)  
0121 424 8518

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**Our website:**

<http://www.nationalgrid.com/uk/Metering/PricingConsultation/Documents>

If you would like further information about National Grid or its Metering business, please do not hesitate to contact us by email or visit **[www.nationalgrid.com](http://www.nationalgrid.com)**

**Alternative Formats**

This document can be made available in large print if required. Please contact us to request a copy.

**Further Information**

If you would like further information about National Grid, its Metering business or any aspect of the Pricing Consultation, please do not hesitate to contact us by email or visit [www.nationalgrid.com](http://www.nationalgrid.com).

# Appendix 1 – Consultation questions

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**Q1:** Do you believe that competition is already effective in the I&C market? What, if any, regulatory controls do you think are appropriate?

**Q2:** Do you agree that the retention of tariff caps remains an appropriate approach to regulating domestic metering charges?

**Q3:** Do you agree that adjustments should be made only to the domestic credit meter tariff cap and that the tariff cap for prepayment metering should continue to be constrained in line with the current price control?

**Q4:** Do you agree with our descriptions of the B-MPOLR and NMM obligations and assessment of their likely duration?

**Q5:** Do you consider our use of the DECC Lower bound-case for meter displacement rates to be reasonable? Is there any basis for assuming any other displacement rate and if so, why? Do you think that the roll-out will specifically identify particular meter types for early displacement and if so why?

**Q6:** Which of the RAV allocation methodologies described do you believe is the most appropriate? Please indicate your reasons if a preference is expressed.

**Q7:** Do you agree that the regulatory return allowed for the Distribution business remains the most suitable basis for establishing the rate of return for metering or should a higher rate be applied?

**Q8:** What requirements do you have for services to support the management of traditional meters (query handling, call management, complaint handling)? What level of service would you expect to receive?

**Q9:** Do you agree with our assessments of future workload? If you have alternative views please outline where they differ.

**Q10:** Do you anticipate any specific requirement for changes to industry data flows or arrangements for traditional meters?

## Appendix 2 – Glossary

### **AMR – Advanced Metering**

Metering functionality for the non-domestic sector that offers remote data collection and consumption tracking but does not require an integral valve and In-Home Display like a fully “smart” meter.

### **B-MPOLR – Backstop Meter Provider of Last Resort**

An obligation placed in a single entity’s Gas Transportation Licence to meet any reasonable request by a Distribution network or supplier to provide and install at the premises of a domestic customer a gas meter owned by the licensee and of a type specified by the Distribution network or supplier. The B-MPOLR obligation operates in conjunction with the MPOLR obligation in other Gas Transportation Licences to provide this service.

### **CAPEX – Capital Expenditure**

Funds used by a company to acquire or upgrade physical assets such as property, industrial buildings or equipment. This type of outlay is made by companies to maintain or increase the scope of their operations.

### **Consumer**

A person or organisation using gas at a meter point.

### **Customer**

A person or organisation with whom NGM has entered into a contractual arrangement.

### **DCC – Data Communications Company**

New proposed entity which will be created and licensed to deliver central data and communications activities. DCC would be responsible for managing the procurement and contract management of data and communications services that will underpin the smart metering system.

### **DCM – domestic credit meter**

A standard domestic meter which registers gas consumption.

### **HAM – Holistic Asset Management**

A holistic view of the entire metering installation used when identifying PME work pools. The principle considers the entire risk presented to the individual household resulting from the operation of the assets within the installation, as a consequence of (but not limited to) the propensity for corrosion, visit history, asset functionality and meter accuracy.

### **MAM – Meter Asset Manager**

A person or organisation approved by the Authority as possessing sufficient expertise to provide gas metering services.

### **Metering Services**

The provision, installation, commissioning, inspection, repairing, alteration, repositioning, removal, renewal and maintenance of the whole or part of an installed gas meter.

### **MPOLR – Meter Provider of Last Report**

An obligation in the Gas Transportation Licences to meet any reasonable request by a Distribution network or supplier to provide and install at the premises of a domestic customer a gas meter owned by the licensee and of a type specified by the Distribution network or supplier.

### **NMM – National Metering Manager**

An organisation obligated by their Gas Transportation Licence to provide B-MPOLR services on a national basis until the MPOLR obligation falls away. In addition the NMM will be obliged to maintain traditional meters until the end of the smart meter roll-out and to offer terms for the adoption of meters from other parties.

## Appendix 2 – Glossary

**OAMI – Ofgem Approved Meter Installer**

Registered entities that conform to one or more of the codes of practice in relation to meter installation.

**OPEX – Operating Expenditure**

Expenditure that a business incurs as a result of performing its normal business operations.

**PEMS – Post Emergency Metering Services**

Repair or replacement of a gas meter as a result of a gas emergency occurring.

**PME – Policy Meter Exchange**

A programme of work to replace assets that are deemed to have reached the end of their asset life due to condition or accuracy.

**PPM – Prepayment Meter**

A domestic gas meter which requires payment for gas to be made in advance of use or they will prevent the supply of gas. Advance payment is made by means of electronic tokens, keys or cards inserted into the meter.

**PRC – Premature Replacement Charge**

An additional payment becoming due in the event of the early removal of a meter prior to the end of its anticipated life. The payment is in addition to rental charges but exception criteria may apply.

**RAV – Regulatory Asset Value**

The RAV is a measure of the value of the capital employed in the regulated business. RAV is a financial construct based on historical investment costs. It represents the value upon which companies earn a return in accordance with the regulatory cost of capital and receive a regulatory depreciation allowance.

**RIIO-GD1**

Ofgem's revised approach to the regulation of energy networks, replacing the previous RPI-X approach. The acronym RIIO stands for Revenue = Incentives + Innovation + Outputs. The first price control period for the gas Distribution networks will run from 01 April 2013 to 31 March 2021.

**RoMA – Review of Metering Arrangements**

The Ofgem consultation process regarding the regulatory arrangements for managing the transition from traditional meters to smart meters.

**WACC – Weighted Average Cost of Capital**

A calculation of a business's cost of capital in which each category of capital is proportionately weighted to determine the average cost of sources of finance and therefore overall required return.



