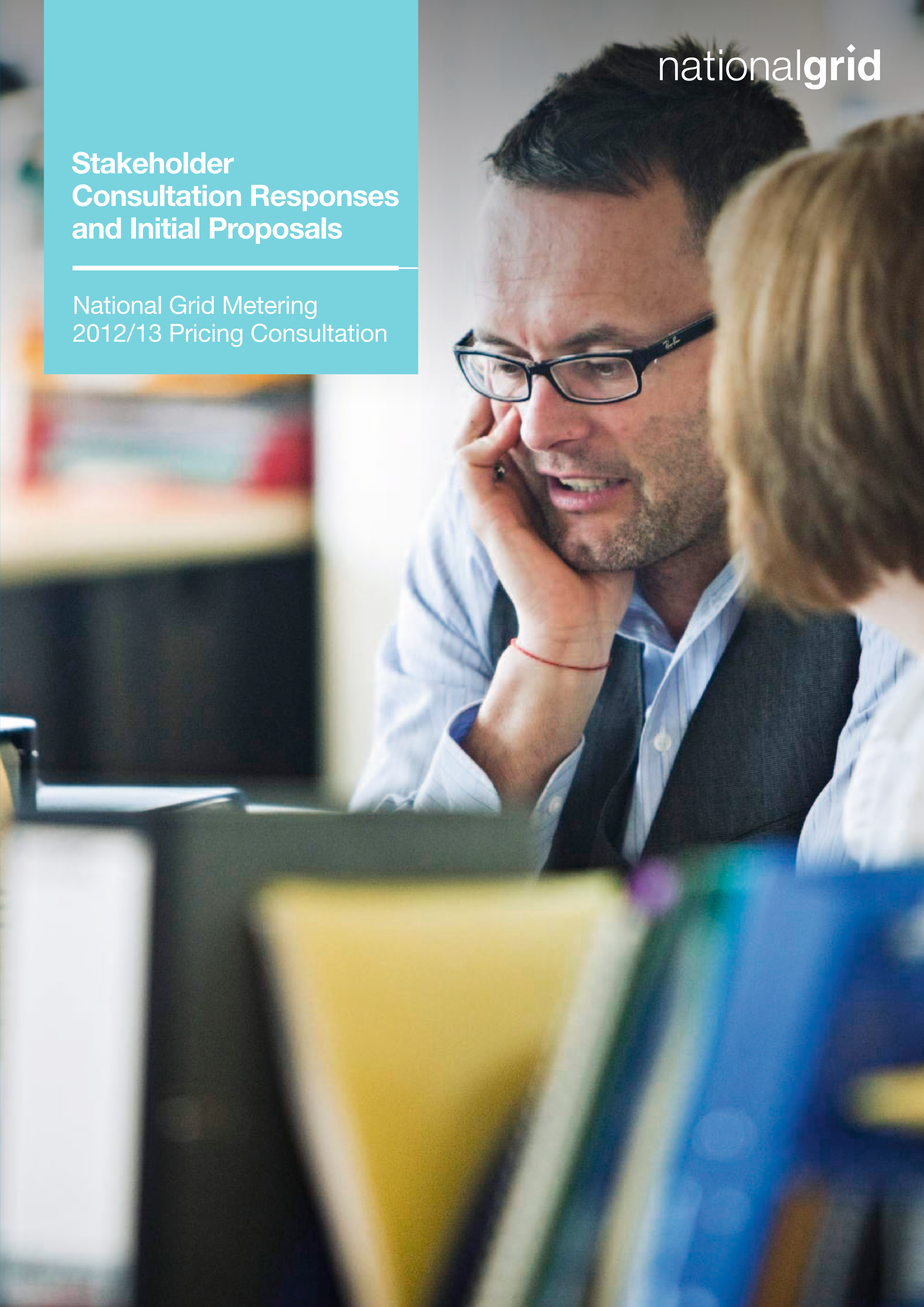
Stakeholder Consultation Responses and Initial Proposals

National Grid Metering
2012/13 Pricing Consultation



nationalgrid

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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**. 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 pricing consultation document focuses on NGM as we undertake NGG's metering obligations as set out in their Gas Transporter Licence. Following on from our previous 2012 Pricing Consultation documents (Preliminary Stakeholder Consultation document, issued August 2012, and Approach and Pricing Model document, issued September 2012), this document details the views and feedback to our initial assumptions and approach, gathered through our stakeholder consultation period. It also details our initial pricing proposals which have developed as a result of this dialogue and sets a response date of **Friday 22nd February 2013** for further stakeholder comments.

Purpose

In this document, we summarise the written responses received from our stakeholders to the consultation questions posed in our Approach and Pricing Model document and set out our initial pricing proposals. We aim to demonstrate how our approach has developed as a result of the responses received and what our initial proposals now look like.

- Section One sets the context in which this consultation has been undertaken, in respect of the transition of gas metering from traditional to smart technologies and the Ofgem Review of Metering Arrangements.
- Section Two summarises the form and duration of the stakeholder consultation undertaken, together with a list of the consultation questions we asked.
- Section Three outlines the methodology and assumptions used to shape our original pricing approach, details the written responses submitted by stakeholders and explains how these responses have shaped our views.
- Section Four details our initial proposals in light of this feedback.
- Section Five explains the remaining steps we expect to occur, further information about our process and the documentation used in it.

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

Executive summary

Consultation activity
Ofgem published their Decision document (reference 100/12) in July 2012, detailing proposals for traditional metering arrangements in the transition to smart metering and requesting National Grid to undertake a pricing consultation process with a view to satisfying the principles Ofgem set out. Following the issue of our Approach and Pricing Model document on 17th September 2012, our pricing consultation ran until 02nd November 2012 and asked stakeholders for their views against ten central questions. We received a number of written responses from stakeholders to this consultation and several additional stakeholders also participated in open workshops and bilateral meetings.

Consultation responses and initial pricing proposals
Based on the consultation responses received, we have outlined our initial pricing proposals, detailing the rationale and assumptions used to shape them. In response to comment from stakeholders, we provide further transparency of our pricing model to provide greater detail regarding the candidate RAV allocation methodologies, our costs and expected portfolios.

Stakeholder views expressed were broadly supportive of several elements of our pricing approach as detailed in our Approach and Pricing Model document. The use of tariff caps was still felt to be appropriate, as was the continuation of the cross-subsidy between domestic credit meters (DCM) and prepayment meters (PPM), despite a desire from some stakeholders to see more cost-reflective charging introduced here. Our descriptions of the new Backstop Meter Provider of Last Resort (B-MPOLR) and National Metering Manager (NMM) obligations were generally accepted, although further clarity was requested from both us and Ofgem regarding several issues, particularly the installation of smart meters. Our use of the Lower-bound case for modelling traditional meter displacement rates was supported as the most reasonable profile currently available. Stakeholders also broadly agreed with our assumptions and projections for future workloads, additional services and industry data flow requirements.

Our view that the Industrial and Commercial (I&C) market had reached a sufficient level of competition to be de-regulated was not accepted. Stakeholders felt that competition was evidenced in some parts of the market but was not sufficient overall. Some parties were also concerned about National Grid's dominant position with installed assets, suggesting some degree of regulatory oversight should continue.

Regarding the allocation of the Regulatory Asset Value (RAV) and an appropriate rate of return for the Metering business, responses were more mixed. Generally, stakeholders sought more visibility of the data supporting the methodologies outlined before stating a preference and asked for additional information to be provided. We have detailed the main candidate methodologies and explained the reasoning for our preference. Regarding the rate of return, responses were broadly split between utilising the rate allocated to the Distribution business, with some level of risk element included, and obtaining an independent assessment of a 'market' rate. We explain why we have chosen to use the the fundamental calculations underpinning the Distribution business price control and why we continue to believe that the inclusion of a risk element in the overall rate of return remains appropriate.

Next steps
Following issue of this document, we would welcome stakeholder feedback regarding the initial proposals we have outlined, and have allowed a further discussion period to consider any views prior to submitting our final proposals.

Any views or feedback on our initial proposals should be provided by **Friday 22nd February 2013** to allow sufficient time for consideration before our pricing proposals are finalised. These will now be submitted to Ofgem and shared with stakeholders in March 2013. We also intend to hold a stakeholder feedback session later that month, where we will detail how consultation responses received have shaped our final proposals.

1 Introduction

1.1 Background

The last Price Control Review (PCR) affecting gas metering occurred in 2001, 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 2006, Ofgem announced their intention to undertake a PCR of the regulated gas and electricity businesses but chose not to progress a PCR of gas metering price controls and licence conditions whilst the competition investigation into National Grid's alternative rental contracts (the MSAs) was underway. Controls and caps established in 2002 were rolled forward.

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

1.2 Review of Metering Arrangements (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[1]. This confirmed their plans to proceed with their “minded to” approach detailed in the RoMA, published in December 2011[2] and confirmed several central 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)
- Recognition that certain market participants may wish to transfer their metering assets to the B-MPOLR for the purpose of maintenance activities. The B-MPOLR would be expected to facilitate such a transfer on a fair market commercial rate and non-discriminatory basis
- 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 sought to consider these new obligations in proposing the levels of future tariffs along with some key issues that Ofgem expected us to consult upon:

- Rate of return
- Allocation of the Regulatory Asset Value
- Assumptions for domestic metering
- Assumptions for non-domestic metering sector
- Uncertainty mechanisms.

[1] 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

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

2 Stakeholder consultation

2.1 Form and duration of consultation

Ofgem published their Decision document in July 2012, detailing proposals for traditional metering arrangements in the transition to smart metering and requesting National Grid to undertake a pricing consultation process. We issued our Preliminary Stakeholder Consultation questionnaire in August 2012, confirming our intention to run a pricing consultation and seeking to understand how our stakeholders wished to contribute to the process. From the responses received, a combination of workshops and bilateral meetings were requested, along with the facility to return written responses to our consultation questions. A list of the stakeholders contacted throughout this process is shown in Appendix 1.

We issued our Approach and Pricing Model document on 17th September 2012, detailing our initial assumptions and approach to pricing and asking stakeholders for their views against ten central questions. The issue of this document launched our stakeholder consultation period, which then ran until 02nd November 2012.

2.2 Consultation questions

In our Approach and Pricing Model document we sought stakeholders' views on a range of issues, asking the following questions:

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?

We received 12 written responses to our consultation and a number of additional stakeholders participated in workshops and bilateral meetings. We received written responses from one Gas Distribution Network (GDN), nine gas suppliers, one meter operator and one industry organisation. Those responses not marked confidential may be found on our website and a detailed summary is included in Appendix 2.

2 Stakeholder consultation

2.3 Workshops and bilateral meetings

Following our Launch Event on 19th September, we held a series of workshops to discuss specific aspects of our pricing proposals further. The sessions were conducted by Engage Consulting, who have been supporting us through this consultation process. The table below details the subjects discussed at each workshop:

Table 1 – Consultation Workshop Agendas

Date	Subjects
Workshop 1 02nd October 2012	■ B-MPOLR and NMM obligations, durations and sunset ■ Traditional meter displacement rates ■ Asset transfer ■ Assessment of future workloads
Workshop 2 03rd October 2012	■ RAV allocation methodologies ■ Domestic revenue requirement ■ Rate of return ■ Methodology for setting tariff caps and proposed tariff caps
Workshop 3 09th October 2012	■ Industrial and Commercial metering and future regulation ■ Requirements for additional services ■ Dealing with uncertainty

Throughout the consultation period, we encouraged stakeholders to take up our invitation to attend bilateral meetings in order to both explore some of the fundamental aspects of our proposals in more detail and as a means to share their views. Stakeholders were contacted on a number of occasions by both National Grid Metering and Engage Consulting to encourage participation and to seek to ensure that a representative view was gathered.

Engage Consulting's report[3], detailing the outputs from each workshop and bilateral meeting held with various stakeholders and summarising overall responses to our approach and pricing model can be found on our website.

[3] Engage Consulting report on findings from stakeholder workshops and bilateral meetings available via http://www.nationalgrid.com/uk/Metering/PricingConsultation/Documents

3 Consultation responses to our Approach and Pricing Model

The high-level pricing model detailed in our Approach and Pricing Model document centres on a number of key themes. For each theme outlined below we set out a summary of our assumptions and methodology, an outline of stakeholders' responses to the consultation questions posed, and our approach in respect of developing our final pricing proposals.

3.1 Positioning our Domestic and I&C businesses

National Grid has confirmed that it is not currently intending to undertake the installation of fully smart domestic-sized meters. We expect to see our estate of traditional domestic-sized meters prematurely displaced as the smart metering roll-out progresses. Larger meters will also be required to be 'smart' by 2020 but will not necessarily need to be exchanged where Advanced Metering or automated meter reading (AMR) facilities can be retro-fitted so these assets can remain in service until normal retirement. Our initial modelling is based on assumptions that domestic-sized meters, remaining under tariff caps, will be displaced as gas suppliers comply with the smart meter mandate and that larger Industrial and Commercial (I&C) meters can remain in service until normal end-of-life requires their replacement (subject to commercial pressures).

The market

Historic estimates placed the size of the non-domestic market at around 1.5million meters of which approximately 900,000 were U6 (i.e. domestic size) and the rest, some 600,000 meters, were U16 and larger. By way of comparison, National Grid now owns slightly fewer than 400,000 meters of size U16 and above, placing our approximate market share at around 65%. Establishing an exact figure for the U6 non-domestic market share is much harder as it depends on the use of market sector identifiers to accurately determine property classification. We agree that, under most assessments, our portfolio of installed meters represents a dominant position in the metering market but do not believe this is the most useful measure of effectiveness of competition.

The growth in Automated Meter Reading and other 'smart' meter reading technologies has created a need for a guaranteed pulse output, driving significant programmes of meter replacement and/or upgrading and providing an opportunity for entry of new market participants. Some new participants are offering on request to install AMR equipment and also replace the metering equipment, thereby utilising the request for AMR as a market entry into meter provision.

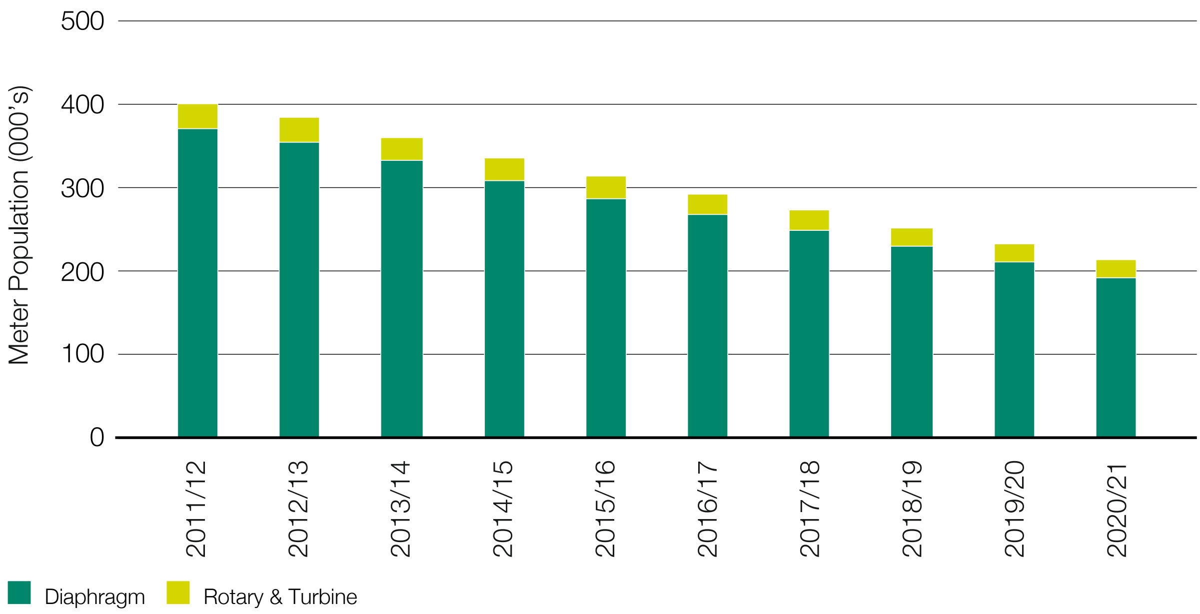
For U6 traditional meters in non-domestic properties, we expect the majority to be displaced by smart meters, in line with the government mandate and supplier licence conditions published in September 2012[4]. We therefore expect our assets in this sector to suffer displacement at a broadly similar rate to domestic U6 meters.

[4] DECC supplier licence conditions governing the roll-out of gas and electricity smart metering equipment available via http://www.decc.gov.uk/assets/decc/11/tackling-climate-change/smart-meters/6408-smart-metering-implementation-programme.pdf

3 Consultation responses to our Approach and Pricing Model

In recent years the majority of all new non-domestic meter installations have been undertaken by our competitors. We have also seen displacement of meters where customers believe a more commercially attractive option is available and believe we are seeing signs that certain types of assets are being cherry-picked. Based on current attrition rates and recent market announcements, we have projected the likely impact on our I&C meter portfolio for meters sized U16 and above, rotary and turbine, should existing levels of competition in the market continue (Figure 1):

Figure 1 – I&C portfolio projection



Our current projections assume that our I&C meter populations in these sectors will reduce significantly by 2019/20, given existing rates of displacement and our current share of new meter installations. However, we believe that evidence of competition recently evident in the market may result in even faster displacement so our non-domestic meter population might more than halve over the same period.

Participants are confident that services currently available in the market will remain available after the transition to smart metering commences, and at competitive market rates. Furthermore, alternative service providers are clearly currently able to compete successfully on a range of different service offerings, demonstrated by several contract awards recently announced. We suggested 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.

Stakeholder responses

Whilst some respondents supported the view that competition was evident in the non-domestic market, others did not agree and pointed to only limited levels of competition in various sectors of the market. A central issue remains the extent of the market share that National Grid retains in installed meters, although the exact extent of this dominance could not be agreed as no one party participating in this consultation has sight of the overall population of non-domestic meters. Some respondents, however, pointed to the ability new entrants currently have to enter the market and compete effectively on price. Their view was that the preservation of the ability for new entrants to become active in the market was a more meaningful measure for assessing competition than market share and attrition rates, given the assumption that existing competition law addresses the concern of dominance. Despite National Grid's dominance in this market, several respondents felt that regulatory oversight was no longer required. There were some strong views that more intrusive regulations were unnecessary and potentially harmful to competition developing, being likely to prevent any further new market participants from being able to compete effectively. Overall, stakeholders expressed a desire to retain some degree of regulatory control until National Grid's dominance was diminished, with any perceived barriers to competition reviewed and addressed.

Conclusion

We accept that it is likely that the current regulatory controls governing I&C metering will need to continue in place, with the general obligation not to unduly discriminate and competition law providing the necessary control mechanisms. However, we would encourage Ofgem to consider further the necessary criteria for accepting this market as being competitive with a view to lifting regulatory controls at some point in the future. To this end, we will be writing an open letter to Ofgem separately from this process, setting out the market forces and criteria we would expect to be considered and proposing an appropriate point for regulatory controls to be lifted.

We continue to maintain that customers' drive for enhanced services and a continuing downward pressure on rental charges are the principal factors in defining the future for the I&C business. As a result, we will continue to review our pricing to ensure it represents an appropriate and competitive level for the services we deliver, as well as providing greater granularity and transparency which customers increasingly expect. To this end, we are also reviewing the need to unbundle some parts of our charges. Further analysis by Ofgem to more accurately establish the overall size of the non-domestic sector and to define total meter populations in the non-domestic U6 meter, above U16 diaphragm meter and rotary and turbine meter populations would also be welcome. This would assist in independently clarifying the extent of National Grid's market share and helping to determine the appropriate criteria and extent of competitive activity for de-regulating this market.

3 Consultation responses to our Approach and Pricing Model

3.2 Tariff caps and regulatory price controls

NGG's metering charges for domestic meters are regulated by a price control set by Ofgem and detailed in Special Condition E19 of NGG's Gas Transporters Licence. 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, then adjusted each year by inflation. Non-tariff capped charges predominantly related to our I&C business are regulated through a requirement not to unduly discriminate (NGG's Licence, Standard Special Condition A43). We demonstrate this by using the relevant tariff cap as the basis for establishing pricing for all our U6 meters, regardless of whether they are installed in domestic or commercial premises. For larger meters, our approach to pricing is structured based on meter type and capacity, with installations connected to high-pressure systems more likely to require additional equipment and therefore resulting in different costs.

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. In their RoMA decision document 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.

Our initial modelling assumed that the cross-subsidy between DCM and PPM meters remains in place, with PPM tariff caps remaining at a level consistent with the current control and amendment to the overall revenue implemented via a change to the DCM tariff cap.

Stakeholder responses

Generally, respondents felt that the use of tariff caps remained appropriate and gave some stability in projecting future rental charges. One stakeholder saw little benefit in changing the use of tariff caps with the transition to smart metering imminent and another felt that tariff caps protected those opting not to enter into commercial contract agreements. Most respondents agreed that adjustments should only be made to DCM rentals but did articulate concerns regarding the cross-subsidy between DCMs and PPMs. It was recognised that unwinding the cross-subsidy would result in significant increases to PPM charges. Discussions with consumer groups clearly indicated that any such change which would increase the differential between DCM and PPM charges would face significant criticism and challenge. Despite this, some respondents expressed a desire for a more cost-reflective basis of charging to be adopted.

Using the Lower-bound case displacement profile and RAV allocation methodology 3, indicative tariff cap levels where the current cross-subsidy is unwound are shown at 2012/13 equivalent levels:

Table 2 – Cross-subsidy impact

	Cross-subsidy retained	Cross-subsidy unwound
DCM tariff cap	£17.02	£14.29
PPM tariff cap	£37.49	£57.27

Some stakeholders expect that the smart roll-out is likely to see PPM displacement occur later in the roll-out profile, particularly if arrangements with the DCC for services to support these meters are unavailable from the start of the mass roll-out. Unwinding the cross-subsidy would result in higher tariffs for PPMs, leaving customers exposed to these higher rates for longer in the event of a later PPM displacement profile. Delays in PPM displacement could also result in greater levels of maintenance activities for a longer period and some stakeholders suggested this could thus disadvantage parties with a greater proportion of PPMs in their metering portfolio, such as the GDNs. The universal application of the tariff cap resulting from this pricing consultation was also challenged by the other GDNs, given the marked difference in DCM and PPM ratios in their metering portfolios from National Grid's.

Conclusion

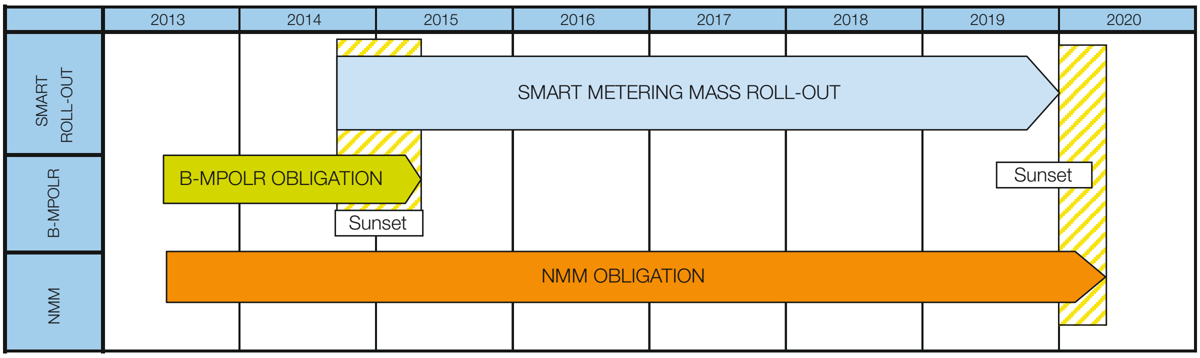
On balance, we believe the retention of tariff caps and the cross-subsidy between DCMs and PPMs remain appropriate, despite the concern expressed regarding the need for greater cost-reflection in PPM pricing. Retaining the cross-subsidy will reduce the risk that suppliers face from potential delays caused by the DCC (Data Communications Company) in making available smart PPM functionality. We recognise both the need for some degree of future pricing surety and a requirement not to create a basis of charge which could negatively impact more vulnerable consumers. Our proposals are therefore based on this approach, with adjustments made only to DCM tariff caps.

We also recognise the uncertainty that exists regarding the timing of PPM displacement and the potential for this to result in additional maintenance activities and costs. However, this uncertainty also constrains the modelling we are able to undertake and we have therefore addressed this variability through the risk element included in our rate of return proposals. As a result, the modelling approach used in our initial proposals continues to assume that displacement rates for PPMs and DCMs remain proportional to the overall meter population.

3 Consultation responses to our Approach and Pricing Model

3.3 Backstop Meter Provider of Last Resort and National Metering Manager

Figure 2 – B-MPOLR and NMM obligation durations



Government expects the mass roll-out of smart metering to commence late in 2014 and conclude by the end of 2019, recently confirmed by the Parliamentary Under-Secretary of State, Baroness Verma[5] in response to a question regarding the establishment of a smart metering programme. We expect the B-MPOLR and NMM obligations to commence in Quarter 3 of 2013, with the B-MPOLR obligation falling away at the start of the mass roll-out of smart meters. The NMM obligation will remain in place for the duration of the roll-out, with the sunset for this obligation linked to the end-date, rather than the start-date.

The B-MPOLR obligation will require us to meet any reasonable request by a Distribution network to provide, install and maintain a traditional domestic gas meter. Charges for services provided under the obligation would be tariff capped but we would expect this to be lifted for new meters fitted after the obligation ceases. Rental charges for meters installed prior to that date would remain tariff capped. Our approach aims to ensure we have the capability and capacity to meet estimated future demand, to the quality and safety standards expected, despite uncertainty over the volume and meter types likely to be requested.

The NMM role entails the ownership and maintenance of domestic meters, both in our existing portfolio and fitted under the B-MPOLR obligation, together with the adoption of traditional meters fitted as a result of PEMS jobs. We would expect to offer these meters under our existing contractual frameworks, detailing similar terms for maintenance or future exchange. The NMM will also be required to offer terms to adopt other existing traditional meters, where requested, undertaken on a commercial basis through a transparent and non-discriminatory process. We believe this introduces an additional uncertainty risk as we cannot accurately predict our future exposure to meter costs for adopted assets without clarity over the potential volume and timing of transfer requests.

Stakeholder responses
Stakeholders broadly agreed with the nature and duration of the B-MPOLR and NMM obligations described but questioned whether the B-MPOLR obligation would extend to the installation of smart meters and if not, how PEMS processes might be affected. The end-date for both obligations was also questioned as several stakeholders believe that there will remain a need for traditional meter installation beyond the implementation of the smart mandate and that a sizeable number of traditional meters may still remain at the end of 2019.

Respondents were keen to understand more about any proposed assessment mechanism for transferring assets. Technical considerations (such as asset age profile, location, maintenance history and provision of warranties) were considered easier to address than assessing a commercial value for assets. Respondents sought clarification of transfer eligibility and some degree of constraint on the duration of the asset transfer facility, concerned that meters previously provided under commercial terms should not be eligible for adoption as companies that provided these meters did so at their own risk. In the same way, assets belonging to Independent Gas Transporter (IGT) should not be eligible for adoption. Respondents were also concerned that "gaming" could occur whereby parties undertook partial portfolio transfers, such as PPM meters, retaining assets less costly to maintain until later in the smart metering roll-out period.

Conclusion
In line with Ofgem's statement in their July Decision document that the B-MPOLR obligation would require National Grid to provide, install and maintain domestic traditional gas meters, we do not intend to install any form of smart meter under this obligation. Responding to stakeholder feedback, we may continue to offer services on a commercial basis for the installation of traditional meters after the licence obligation falls away. Considering the views expressed, we propose that asset transfer under the NMM obligation is open to all and that the mechanism used to agree the transfer value will recognise the present value of future cashflows for the assets. We propose that the valuation mechanism will assess specific technical criteria (such as meter make, model, location, maintenance history and any existing warranties amongst other factors), with the resulting price then being calculated based on estimated future cashflows prior to displacement by a smart meter. We believe this approach both addresses respondents' concerns regarding commercial and IGT providers and remains consistent with Ofgem's original aim of providing asset owners with a means to exit traditional gas metering. Basing the asset transfer value on the present value of expected future cashflows from the meters being transferred also maintains a level of consistency with the assumptions we outlined in our Approach and Pricing Model. Where requested, we would be willing to provide estimates of asset transfer valuations using this approach, pending final agreement on the level of tariff caps.

We also propose that the period during which assets can be transferred should be aligned with the duration of the B-MPOLR obligation. This would provide a sufficient length of time for parties wishing to transfer assets, provide greater clarity of the population of meters covered by the NMM obligation and limit possible "gaming" activities stakeholders highlighted. As the NMM role encompasses both ownership and maintenance of the traditional assets in its portfolio and we do not envisage the separation of these services, we would expect assets sold to National Grid under the NMM obligation to then be provided under our existing contracts.

[5] Hansard Ledger 06 December 2012 record can be found at: http://www.publications.parliament.uk/pa/ld201213/ldhansrd/ldallfiles/peers/lord_hansard_5081_home.html

3 Consultation responses to our Approach and Pricing Model

3.4 Traditional domestic meter displacement rates

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. Some assets, particularly those new and replacement meters yet to be installed under the POLR obligations, will have very short service lives. Displacement rates will also affect the duration and scale of the supporting services that are required to support these assets.

Our pricing model used three scenarios produced by DECC and we believe that the Lower-bound case is the most likely. Our model assumes that traditional meter displacement will be spread proportionally across DCM and PPM populations and that Domestic operational overhead associated with maintenance activities declines in line with average meter population.

Table 3 – Smart meter installation – Taken from Table 13 in DECC Impact Assessment – Smart meter rollout for the domestic sector (GB) August 2011[6]

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

Stakeholder Responses

Only one stakeholder pointed out that the Higher-bound case was the most valid scenario as it was the only profile that achieved smart metering completion by the end of 2019. Generally, respondents agreed that the Lower-bound case was the most likely scenario but indicated that this would still be challenging to achieve. Technical constraints, DCC implementation, property accessibility, cost and engineer availability were cited as possible delays. Respondents therefore welcomed the possibility of reviewing pricing later in the control period but suggested that this should be done based on evidence of significant variation to the projected roll-out rate, rather than at a fixed date.

Respondents indicated that they believed it would be likely that DCMs would be displaced sooner, along with dual fuel customers. Concern was expressed that DCC functionality to support PPMs may not be fully operational initially, leaving PPMs in situ longer. It was suggested that the continuance of the current cross-subsidy between DCMs and PPMs may also affect the roll-out profile, incentivising the earlier displacement of DCMs.

Conclusion

Despite concerns that even this represents a challenging displacement rate, the DECC Lower-bound case is currently the most robustly supported assumption on which to base our final proposals. We will also continue to assume that traditional meter displacement will be spread proportionally across DCM and PPM populations.

Recognising that there is uncertainty in forecasting the rate of smart meter roll-out stakeholders welcomed our suggestion of a pricing adjustment at some point during the transition from traditional to smart meters. Uncertainty will remain for some time on variable factors such as the exact start date of the mass roll-out stage, DCC readiness to manage PPM requirements, concerns over data security across the proposed infrastructure and the different pace gas suppliers may adopt towards smart metering. As a result, we believe annual reassessments of tariffs will be difficult to undertake with any greater degree of accuracy as these uncertainties are likely to continue well into the transition to smart meters. In addition, we feel that the prospect of annual pricing changes would introduce an additional element of uncertainty to traditional metering, unhelpful at this time. We therefore believe that annual pricing assessment and adjustment would require significant industry and regulatory resource to undertake but potentially deliver limited benefit.

We propose that any adjustment of pricing would be triggered by a 20% deviation from the smart installation cumulative completion rate detailed in the DECC Lower-bound case rate as at the mid-point of the mass roll-out period. This would be assessed based on the annual progress reports gas suppliers will be required to provide to DECC throughout the smart metering roll-out. The DECC Lower-bound case which our proposals are based on states cumulative completion rates as at December 2016 as being 49% for the Lower-bound case and 57% for the Central case, a difference of 8%. A 20% deviation from the Lower-bound case at this stage represents 39.2% cumulative completion of the smart metering roll-out, 9.8% below the Lower-bound case and broadly equitable with the difference between the Lower-bound and Central cases. We are also mindful that displacement rates could be faster than the DECC Lower-bound case, as some stakeholder feedback has indicated. We are proposing to address this uncertainty through the risk element included in the rate of return we outline in Section 3.6.

We believe that initial assessments for this review should not be undertaken before late 2016, given that mass roll-out is unlikely to commence before the end of 2014. Assessment of deviation from the Lower-bound case and pricing adjustment could occur during 2016/17, with any resulting changes applied from April 2017, the mid-point in the current smart metering roll-out timeline.

We are mindful of concerns that stakeholders may have regarding price volatility in the event of a later reassessment of pricing. We understand why some might envisage that a degree of risk might pass to customers renting the remaining meters, given that the remaining revenue requirement might be levied on fewer meters. It would therefore be our intention not to increase rental charges as a result of displacement rates being faster than the Lower-bound case. Should displacement rates be significantly slower than expected, we may decrease prices at the adjustment, thus returning the element which has been shown not to be required. Further details on this are included in Section 3.6 where we outline our proposals regarding the need for the inclusion of a risk element in the overall rate of return.

The adjustment would utilise the same approach as the model used to develop these pricing proposals, basing future revenue requirements on current unit costs and revised expectations for traditional meter displacement rates. Any adjustments would therefore be assessed against the proportion of smart meter installations completed to the mid-point of the mass roll-out period, projected displacement rates to 2020 for remaining traditional meters and actual workload levels undertaken, to reflect potential additional CAPEX requirements.

[6] 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

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3.5 Regulatory Asset Value (RAV) assessment and 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.

Ofgem suggested five different methods to apportion the RAV:

1) An allocation that preserves the current relationship between tariffs for domestic and I&C metering services
2) A pro rata allocation of the 2012 metering RAV based on the current depreciated replacement cost values of the domestic and I&C meters
3) 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
4) An I&C RAV consistent with the depreciated replacement cost value of I&C meters, taking into account realistic depreciation lives, leaving the residual RAV with Domestic
5) An allocation consistent with tariffs for I&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.

Our indicative pricing model used Methodology 3.

Stakeholder responses

Stakeholders indicated a range of preferences but were agreed over the general principle that any difference in valuation identified between the current total RAV and the estimated current value of metering assets should be apportioned between the Domestic and I&C businesses when agreeing the RAV allocation. Overall, stakeholders were less comfortable with allocation of any difference in valuation to either the Domestic or I&C business, preferring methodologies which centred on pro rata RAV allocation.

Only Methodology 1 was discounted completely, since this implies an ‘as is’ approach which is not appropriate given the differing paths of Domestic and I&C. Some expressed a preference for Methodology 3 on the basis that it retained a link to previous price control approaches and could provide a relatively quick conclusion. Concern was expressed regarding the use of RAV assessment as a basis of any regulation in the I&C sector and that this could in turn impact the development of competition. Methodologies 2 and 4 were seen as having merit but some stakeholders were concerned about the practicalities and potential subjectivity the assessment of I&C asset replacement costs would require. Methodology 5 was supported by a few but recognised as also dependent on a significant degree of subjectivity. An additional methodology was proposed by some stakeholders assessing domestic depreciated replacement costs only. However, it was recognised that the residual between the total RAV and the depreciated replacement cost would be left in I&C and this was not thought to be appropriate as this could fail the objective not to unduly discriminate between market sectors. This is also an issue with Methodology 4, where any residual between opening RAV and depreciated replacement cost would be left in Domestic. Several respondents declined to state a preference and sought greater visibility of financial data before reaching a conclusion.

Further analysis

For Methodologies 2, 3, 4 and 5, the table below demonstrates the allocation of RAV between the Domestic and I&C businesses and the resulting impact on DCM tariff caps. We have used the Lower bound-case displacement rate, a rate of return of 6.5% and assumed the existing cross-subsidy remains in place, adjustments only being made to the DCM tariff cap:

Table 4 – RAV allocation methodologies and resulting tariff cap levels at 2012/13 prices.

Methodology	RAV Allocation (£m)		DCM Tariff Cap	Comments
	Dom	I&C		
2 Pro rata allocation based on depreciated replacement cost values. (The values for domestic meters are based on indexed historic costs and for I&C are based on depreciated replacement costs – see explanatory notes below table.)	692	187	£16.29	A bottom-up exercise has been undertaken to determine a replacement cost. Due to the difficulty in providing replacement costs for the larger sites individually, these have been grouped by capacity, pressure and complexity and replacement costs for these categories have been built up with the aid of manufacturer and service providers.
3 Pro rata allocation of the 2002 metering RAV based on depreciated replacement cost values of Domestic and I&C assets in 2002, rolled forward separately using the same depreciation and capitalisation policies adopted for the metering RAV as a whole.	714	165	£17.02	This is the base case methodology and is based on the split determined internally at the last Price Consultation in 2002 (the opening values are based on a depreciated replacement cost exercise undertaken in 1997, then rolled forward).
4 I&C RAV consistent with depreciated replacement cost value of I&C meters, taking into account realistic depreciation lives, leaving residual RAV with Domestic.	741	138	£17.94	Comments in line with Methodology 2
5 Allocation consistent with tariffs for I&C metering services being at a competitive level, leaving the residual RAV with Domestic.	655 to 713	166 to 224	£15.03 to £17.00	This is more of a "fair value" approach to valuing the I&C business and considers future cash flows. A range has been provided here given the uncertainty in determining some of the inputs, such as displacement of existing assets and share of new and replacement work won by National Grid.

N.B. U6 meters in non-domestic properties are included within the I&C RAV allocations above. DCM tariff caps are shown at 2012/13 rates and would be subject to a 2.95% RPI adjustment to convert to 2013/14 rates.

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Depreciated replacement costs

Methodologies 2, 3 and 4 are based on an evaluation of the depreciated replacement cost for I&C meters. Methodology 3 is an allocation of the RAV determined internally at the last Price Consultation in 2002 and rolled forward since then. The split at 2002 was based on depreciated replacement costs of both domestic and I&C assets as at 1997, then rolled forward by adding new capital expenditure at cost, adjusting for disposals on a first in first out basis, deducting depreciation and indexing values in line with RPI.

A bottom-up exercise to determine replacement costs has been undertaken to support Methodologies 2 and 4. Initial concern was expressed by some stakeholders regarding the time and accuracy of this exercise, particularly given the complexity of some of the large, high pressure sites, a view we also shared and articulated in our Approach and Pricing Model document. However, all the high pressure sites were surveyed in 2011 and an exercise has now been undertaken to group these sites (of which there are around 125) by capacity, pressure and complexity and to also look at what additional equipment is on site, such as pre-heaters and flow computers. Based on these groupings quotes have been obtained from a manufacturer and service providers to estimate replacement costs for these sites. Although the replacement costs have not been determined by real procurements, we believe they provide a fair basis for estimation of likely actual replacement costs. Meters and installation materials related to lower pressure sites are procured more regularly, so the calculations are based on actual cost data.

Labour and ancillary equipment costs for installation of domestic meters are based on latest cost information. The cost for domestic meters takes into account the mix of new and refurbished meters procured and is based on indexed historic meter costs rebased to 2011/12 values. This different approach is taken because the costs of procuring domestic size meters have varied significantly over time as a result of competition between manufacturers and between metering technologies. As such, the best current costs are significantly lower than the historic cost. The market for new I&C meters is much smaller and has not been subject to the same competitive pressures. We feel that it is appropriate to take into account the changes in technology that have impacted domestic meter costs over the years, as has the mix of new and refurbished meters.

If domestic meter cost are based only on the cost of new meters rather than taking into account indexed historic costs and a mix of new and refurbished meters, the RAV allocation using Methodology 2 would be Domestic £679m, I&C £200m and the DCM tariff cap would be £15.86. However, we do not believe that it would be appropriate to ignore the higher indexed historical costs for domestic meters in the RAV allocation since the RAV is intended to represent historic investment. If only new costs are used, for domestic metering it would increase the difference between RAV and actual costs and would unfairly attribute a proportion of this difference to the I&C business.

Asset life

Asset lives of 20 years are assumed for DCMs and 10 years for PPMs, consistent with standard industry assessment approaches and the charging methodology we have adopted historically. I&C meters are also assumed to have an asset life of 20 years but may have very different costs, particularly with respect to purchase price and maintenance costs. Rotary meters tend to have a higher purchase price than the equivalent turbine meter and both need to be serviced to manufacturer's specification, thus requiring more regular maintenance than diaphragm meters. Installations connected to high-pressure systems are considerably more complex and may require additional equipment such as flow computers, multi-stage pressure reduction, slam-shut discrimination and pre-heaters.

There is evidence that technically some of our domestic and I&C meters can last longer than the asset lives utilised for this exercise. However we feel that, on average, these asset lives are still appropriate since a proportion of assets are also removed prior to achieving their assumed 20-year life. Using Methodology 2, we have tested the sensitivity of this assumption. For each additional year added to I&C average asset lives (but not domestic), this would result in the I&C RAV allocation increasing by £7.6m and the DCM tariff cap reducing by £0.26. For each additional year added to domestic average asset lives (but not I&C), the domestic RAV allocation would be increased by £12.7m and the DCM tariff cap would increase by £0.43. We continue to work with Ofgem to examine both the technical and commercial asset lives of non-domestic meters and the impact they have on the resulting allocation of the RAV.

Methodology 5 aims to represent much more of a fair value approach and the ranges have been derived by considering the present value of potential future cashflows from the I&C business in different scenarios. This requires speculation about future events and it is much more difficult to provide a single value for this option since the value is dependent on assumptions such as price, displacement rates, percentage of new and replacement work retained and the average age of assets when displaced. A range has therefore been provided for this option to reflect the sensitivity of the valuation to these assumptions.

The upper range demonstrated assumes that current work ratios are rolled forward each year i.e. that the proportion of new and replacement work won by NGM stays at current levels and the Policy Meter Exchange (PME) pool remains at the same proportion of the populations each year (gradually reducing in line with populations). Third party displacement over and above PME remains at current levels and when future replacement of third party assets becomes necessary this scenario assumes NGM wins back 20% of replacement volumes. Ongoing OPEX costs retain a similar ratio to rental values as at 2011/12. No premature replacement of assets installed after 2011/12 is assumed, other than for discontinuance of gas supply. These assumptions result in a 30% decline in NGM U16 and above populations by 2019/20. This scenario might be viewed as very optimistic as it assumes that competition would be largely ineffective. This scenario provides a value for the I&C business of £224m.

The lower range demonstrated assumes that the displacement of legacy assets does not reduce proportionally in line with the diminished NGM populations, but continues at the quantum rate currently being achieved, i.e. that competitors continue to win volume-based contracts rather than just securing a right to replace the NGM meter upon its retirement.

This scenario also assumes that the proportion of new and replacement work undertaken by NGM will halve over the next three years due to competitive pressures, and that only 10% of third party replacement work is won back. These assumptions result in a 50% loss of 2011/12 populations by 2019/20 and derive a value for the I&C business of £166m.

The scenarios above assume that rental prices remain at their current level. If rental rates were discounted then attrition might be slower. The range of outcomes that could occur, should prices be reduced to try to mitigate stranding, is likely to fall within the range highlighted.

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Since this approach values just the I&C business and leaves the residual RAV in the Domestic business, any difference between the total RAV opening value and the sum of the calculated value of Domestic and I&C is left in the Domestic business rather than being shared across both businesses.

As mentioned above this method is very speculative and whilst we believe the calculated range gives a reasonable indication of the fair value of the business, by adjusting some of the modelling parameters this range could be even wider than stated. We therefore believe that this method is not appropriate for the purposes of determining the Domestic and I&C RAV splits although it could be used alongside the other options to test the extent to which the allocation correlates and to understand the sensitivity of the assumptions.

Conclusion

We have discounted Methodology 1 due to the lack of stakeholder support. We believe that Methodologies 2 or 3 would be the most appropriate. Although not clear cut, these methodologies generally gained the most collective support from stakeholders. Methodologies 2 and 3 offer the benefit of valuation of both the Domestic and I&C portfolios for the purpose of setting tariff caps. In contrast, Methodology 4 is based on a valuation of the I&C business, then allocating the residual amount to Domestic for the assessment of tariff caps. The additional methodology proposed considers only the Domestic portfolio, leaving the residual in I&C. As a result, we do not consider either Methodology 4 or the additional methodology to be appropriate. Methodology 5 offers a "fair value" approach to assessing the I&C business but requires considerable speculation regarding the future I&C portfolio size and projected income levels from these assets. The highest I&C valuation shown in this range requires an assumption that competition will not increase in the I&C market, with the levels currently seen being maintained. Stakeholder responses to our consultation question regarding the future regulation of I&C clearly indicated an appetite for greater competition in the I&C market, contradicting the assumption that competition does not increase. We believe Methodology 5 offers the most subjective RAV allocation approach and therefore is not appropriate. Ofgem continue to undertake additional scrutiny of our pricing model and the sensitivities inherent in Methodologies 2 and 5 to provide greater clarity regarding the most appropriate RAV allocation and resulting tariff cap level.

Given that Methodology 2 is based on a more recent depreciated replacement cost exercise for I&C than that utilised for Methodology 3, we believe this is the more relevant of the two and have used this as the basis for our initial proposals.

Costs and meter populations have been updated from our Approach and Pricing Model document regarding U6 meters in non-domestic properties. We have listened to stakeholders who would prefer these to be treated as I&C, so we have taken this into account in the RAV allocation and modelling detailed in our proposals.

3.6 Rate of return

In 2002, the rate of return used was set at 7% pre-tax real, taking the 6.25% rate allowed for the distribution business and adding 0.75% to recognise the additional risks associated with the introduction of metering competition. In their July Decision document, Ofgem proposed that the same financial regulatory model should be used. Our high level pricing model therefore utilised a rate of return derived from NGG's RIIO-GD1 proposed rate of 4.8% (post-tax real vanilla WACC), retaining the relationship with the 2002 methodology.

We propose that the determination of rate of return remains similar to the prevailing method and continues to include a risk premium recognising the significant impact that changes outside our control may have on our business. Utilisation of the NGG RIIO-GD1 rate enables the Metering rate of return to be based on an assessment of income in relation to costs which has already been subject to detailed regulatory assessment. It also considers at a macro level an appropriate return applicable for an extended charging period, such as a control review period. We maintain that metering still carries a greater risk than the network activity due to the uncertainties inherent in the transition to smart metering and set out the areas which we expect to have the greatest impacts.

Stakeholder responses

Some respondents agreed that utilising the RIIO-D analysis to establish the metering rate of return provided a robust way to establish the fundamental cost of capital and did not see a compelling reason to change this approach. Other respondents expressed dissatisfaction with this proposal, arguing that the metering business has a declining asset base and will eventually be exiting the domestic market. Some respondents also stated that use of the RIIO rate was not appropriate as the Distribution and Metering businesses faced fundamentally different risks and challenges. They suggested that the rate of return should be constructed on a bottom-up basis by an independent consultant, even if this resulted in a higher rate.

The inclusion of a metering risk element of 0.75% was also challenged, with views being expressed that it was both too high and too low. Those believing it to be too high suggested that the level of risk the metering business faced was not greater than the distribution business and that a proportion of risk is already accommodated in the assessment of costs. Conversely, others stated that a risk element above 0.75% would be appropriate to recognise increased risks of stranding, uncertainty and recognising the minimum capital and operating expenditure required to sustain a MAM role.

Risk element

The inclusion of the risk element aims to address uncertainties inherent in the pace of the roll-out of smart meters. We have taken into consideration the fact that any deviation from the DECC Lower-bound case resulting in a slower rate of displacement could be accounted for through a later pricing adjustment, mitigating the potential risk of over recovery. We have also considered stakeholder concerns regarding an adjustment to charges in the scenario of a more accelerated displacement. The risk here is that the stranded value would be passed into the rental for any remaining meters and would not necessarily be borne by those suppliers who, through faster displacement, had contributed to the stranding. To address this risk, we propose that an element

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is included in the calculation of the rate of return. In this way, we can then propose that we would not need to adjust rentals upwards if the roll-out proceeds faster than the lower-bound forecast. If displacement is slower than the Lower-bound case, rentals would be revised accordingly at the pricing readjustment and any resulting over-recovery of revenues will be 'given back' to customers via an adjustment to the rentals. We believe this approach is fairest to all stakeholders. Additional costs could be incurred if PPM displacement is slower than DCM displacement, as several stakeholders suggested. Peaks in call and query volumes due to varying stakeholder strategies could also result in additional costs. We have not factored these costs into our financial model, but believe that there is a real risk of these being incurred. As a result, we propose that these should also be addressed in the risk element. A breakdown of the proposed risk premium and the constituent elements discussed is shown below:

Table 5 – Risk elements and resulting impacts

	Impact on DCM Tariff Cap	Probability of occurrence	Adjusted impact on DCM Cap	Risk element required
Asymmetrical risk of displacement being faster than DECC-Lower-bound case (sensitivity shown on Central Case) – not accounted for in pricing adjustment	£2.52	10%	£0.25	0.51%
PPM displacement slower than credit meter displacement	£0.17	50%	£0.09	0.18%
Peaks in Smart roll-out caused by varying stakeholder strategies, driving additional costs related to call and queries volumes	£0.03	50%	£0.015	0.03%
TOTAL				**0.72%**

Conclusion

We still believe that utilising the underlying rate of return agreed via the RIIO GD1 process provides a suitable basis to set the Metering rate of return and offers the benefit of having undergone considerable regulatory scrutiny. We have considered the appointment of an independent consultant to derive an appropriate rate of return, but believe that this could provide a less robust and more subjective answer. The final rate of return for RIIO has not yet been agreed. As a result, the rate of return used in our initial proposals may be subject to change and will be adjusted when the RIIO-GD1 rate is agreed but currently equates to 5.77% on a pre-tax real basis. We also believe that a risk element remains appropriate, particularly given the asymmetric risk we face in respect of meter displacement rates. The risk element of 0.72% outlined above, added to the underlying rate of return of 5.77%, provides a proposed rate of return of 6.5%.

3.7 Domestic revenue requirement

Ofgem's RoMA Decision document set out the Domestic revenue requirement equation that should be used for the pricing consultation:

Figure 3 – Domestic revenue requirement equation

PV domestic meter rentals
plus
PV premature replacement charges
plus
PV other domestic metering receipts

=

Domestic RAV at start of 2013
plus
PV net capital expenditure
plus
PV operating expenditure

The total revenue requirement is based on the opening 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) and Other Receipts in the form of upfront transactional charges for new installations and exchanges. Our expectation of these is outlined in the table shown, based on the lower-bound case and RAV allocation Methodology 2:

Table 6 – Domestic revenue requirement equation

£m*	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
OPEX	34	29	22	15	11	7	5	**123**
CAPEX	34	18	9	5	2	1	0	**69**
PV of OPEX and CAPEX	67	43	26	16	10	5	4	**171**
RAV as at 1st April 2013								**692**
Total revenue requirement								**863**

£m*	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
Meter rentals	236	214	161	105	63	28	10	**817**
PRCs	9	28	53	29	26	15	5	**164**
Other receipts	7	2	-	-	-	-	-	**8**
PV of income	243	222	183	107	67	31	10	**863**

*Shown at 2011/12 equivalent costs and allowed return of 6.5%.

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The summary revenue requirement analysis and supporting information used in our Approach and Pricing Model document utilised the Lower-bound case for traditional meter displacement rates. It provided historical information relating to costs, plus projections for the period from April 2013 to March 2020. It assumed that PPM and DCM displacement would be spread proportionally across the overall meter population and that maintenance activities declined in line with these volumes. Operational overheads were also assumed to decline in line with overall meter populations. Central costs attributable to Domestic metering were detailed, together with our projections for capital expenditure. We believe significant expenditure on our Information Systems (IS) infrastructure 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. Cost projections do not include 'one-off' allowances for specific changes to industry data flows or processes or decommissioning costs, required once the transition to smart metering is complete.

Ofgem have been provided with a more detailed financial model but as this contains sensitive commercial information, it will not be shared with other stakeholders.

Stakeholder responses

Several respondents expressed concern over the impact that the inclusion of PRCs has on the six box model, given the variable nature of these payments depending on the number of MSA signatories. A view was expressed that National Grid could reduce MSA prices but recover the balance through the regulated Provision and Maintenance (P&M) contract, thus unfairly impacting customers who did not sign the MSA contract. For clarity, we can confirm that the calculation only takes into account the New and Replacement MSA contract which covers approximately 21% of the portfolio. Ofgem requested that the income from this contract be taken into consideration in order to include revenues from PRCs, thus ensuring more revenue was not collected than required overall. Any impact of suppliers signing the alternative domestic legacy contract is excluded from this calculation. It was also recognised that the MSA contracts through which the PRCs are levied are a National Grid offering and this income stream may not therefore be available to other GDNs, disadvantaging them in the event of tariff caps being universally applied. We understand that Ofgem are discussing this matter with the other GDNs directly.

Most stakeholders did not foresee any requirements to change data flows for traditional meters as they believed existing industry processes remain fit for purpose overall. Some respondents were concerned that the volume of deappointment flows resulting from meter displacement for a smart meter might create capacity issues for the industry overall. Only one respondent commented that MAM to MAM or MAM to MAP flows should be accommodated.

Some stakeholder feedback suggested that meter displacement represented an opportunity for National Grid to recoup additional income, through either the sale of removed traditional meters to developing countries, recycling or selling scrap from meters not able to be reused. We have considered a number of scenarios to mitigate costs and maximise revenue from meter disposals. Our assessments indicate that costs relating to the management of hazardous waste and/or additional packaging and transportation in the case of resale are likely to outweigh the potential value. The overall impact associated with meter retrieval, sorting, mercury disposal costs and scrap income is a net cost to the business, which is why a revenue stream has not been incorporated into the financial model as proposed by some stakeholders.

Generally, stakeholders supported our approach of linking projections for future workload and operational overheads to traditional meter displacement rates. Our Approach and Pricing Model document utilised the Lower-bound case and stakeholder responses have endorsed the view that this remains the most appropriate scenario for modelling purposes. Customers also said that they expect NGM to continue to deliver against current service levels which means that systems and business processes must be maintained.

Conclusion
We note the concerns of other GDNs regarding the appropriateness of PRCs in the domestic revenue equation, but accept that this is appropriate for NGG in considering future tariff caps. Any under-recovery from the alternative legacy MSA contract is not taken into account in this equation, and although PRCs are included for the New and Replacement contract, this contract only covers around 21% of meters and the impact of which does not have an adverse impact on tariff caps. We therefore accept the revenue equation as a basis of setting the metering charges.

3.8 Transactional workloads and requirements for other services

We expect customer-requested work to decline leading up to 2015 and cease altogether thereafter, a view generally supported by stakeholder responses.

We currently provide a range of other services which our customers clearly value, including query investigation, investigating and responding to complaints and a national call handling service for both domestic and I&C communities. We believe that customers will expect us to continue to provide high quality support services to manage traditional meter stocks and projecting the levels of cost and expenditure to deliver these services is central to our model.

Stakeholder Responses
Respondents confirmed that the current range of services provided by NGM would continue to be valuable in the transition to smart metering. They felt that call volumes were likely to remain high well into the roll-out programme and an additional "bubble" of queries and complaints could be created. Generally, the high standard of service currently being delivered was expected to be maintained.

Conclusion
Similar to those views expressed in respect of transactional and maintenance workloads, stakeholders broadly supported our approach and agreed with our expectations regarding PME volumes and regulator replacements linked to traditional meter displacement rates. We will therefore continue to utilise these principles in developing our final pricing proposals.
We will base our final pricing proposals on the projected levels of cost and expenditure included in our Approach and Pricing Model, using meter populations extrapolated from the Lower-bound case displacement rate. We acknowledge respondents' concern regarding the potential for additional queries and complaints to be generated and, should significant increases in requests for other services materialise, we would expect to address this within the context of the review of the charges.

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3.9 Meter maintenance

As the licensee, it remains NGG's responsibility to ensure that a meter is maintained to an appropriate standard and the installation remains safe and fit for purpose. Our model contains an expectation of the level of activity and costs of maintaining the estimated volumes of traditional meters prior to displacement but does not include any additional volumes which may be required following asset transfers. We expect costs related to maintenance and asset management activities to fall largely in line with meter populations. A significant proportion of the costs relate to attending to PPMs.

Stakeholder Responses

Respondents were generally supportive of our approach, offering clear support for linking maintenance workloads with the Lower-bound case rate used to project traditional meter numbers. However, stakeholders also expected that PPM displacement would be likely to occur later in the smart metering roll-out, having an impact on maintenance workloads and resulting operating costs.

Conclusion

On balance, we have chosen not to alter our projections of meter maintenance volumes but accept that later displacement of PPMs could result in higher levels of maintenance activity for a longer period. Given the impact this area of uncertainty may have on our costs, we believe this should be reflected through the rate of return and any risk element applied. Maintenance volumes and meter populations by type could later be reassessed as part of the reopener, when greater information on the rate of the smart metering roll-out is available.

3.10 Post Emergency Metering Services (PEMS)

National Grid do not currently intend to offer smart meter installation or to undertake PEMS services for these but we support the view that PEMS for traditional meters remains essential and will continue to provide this in the four NG distribution network areas. After the smart meter mandate begins, we believe there will remain some instances where a traditional meter is fitted during a PEMS visit, where the priority will be to quickly restore gas supply. However, there remains uncertainty over the likely number of meters that the NMM may be requested to adopt and the need for adoption of PEMS meters may decline earlier than the reduction in meter populations. We will continue to offer PEMS services in our retained distribution networks on a commercial basis, as we do today, with the traditional meters installed through PEMS activities subject to similar regulatory tariffs for ongoing charges.

Stakeholder Responses

Some respondents suggested that meters installed as a result of PEMS jobs should not be eligible for adoption by the NMM and should be subject to commercial negotiation instead, given that PEMS is itself a commercial arrangement. Generally, respondents also felt that ensuring appropriate arrangements were in place for future smart PEMS services could be expensive and time-consuming, thus potentially extending the demand for traditional PEMS services.

Conclusion

On balance, we continue to believe that the proposals for PEMS arrangements which we set out in our Approach and Pricing Model document remain appropriate. The gas supplier remains free to choose whether to dispatch their own preferred meter provider or to instruct the network operator to undertake the meter exchange. Where National Grid is instructed to undertake this work, we continue to propose that the traditional meter fitted is adopted by the NMM using the same valuation mechanism to be used for asset transfer requests. Following the start of the smart metering mandate, we expect Suppliers to make the decision regarding who to instruct to undertake the meter exchange based on their readiness to install smart meters in emergency situations.

4 Our initial proposals

The period we have utilised for the basis of our initial proposals assumes that the price control period will run from the point at which the B-MPOLR and NMM obligations commence to March 2020, following the planned completion of the roll-out of smart meters.

Our proposals are largely based on 2011/12 costs, projected forward in line with populations and workload, and we believe that projecting forward 2011/12 ratios is a sound basis for estimating costs for the financial model. This approach assumes that all operational costs are completely variable and can be eliminated in direct proportion to the reductions in work requests or meter populations. In reality, costs are likely to be stepped and will not naturally reduce as volumes fall, and generally there will be a time lag before costs can be reduced. We have sought cost efficiency in previous years and have achieved a current level of approximately £10 per job. However, along with the inevitable diseconomies of scale as volumes fall, this means that we will need to find further efficiencies to maintain the 2011/12 cost ratios.

Using RAV allocation Methodology 2 and the DECC Lower-bound case to determine meter populations, table 7/8 below summarises our expectations regarding workload, OPEX and CAPEX, following on from the Domestic revenue requirement equation we set out in Section 3.7. We have used a rate of return of 6.5%, based on the RIIO-GD1 proposals and including an additional 0.72% in respect of metering risk. These have then been used to develop our initial proposals.

Table 7 – Workload and OPEX projections

Workload/populations	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
Install/Exchange volumes (000's)	215	85	29	13	5	-	-	
Average populations (000's)*	13,914	12,610	9,494	6,161	3,696	1,667	580	
OPEX £ms								
Operational overheads – installs/exchanges	2.3	0.9	0.3	0.1	0.1	-	-	**3.7**
Operational overheads – ongoing	8.8	8.1	6.1	4.0	2.4	1.1	0.4	**30.9**
Meterwork costs – ongoing	13.5	12.5	9.5	6.1	3.7	1.7	0.6	**47.6**
Property	2.0	1.8	1.4	1.4	1.4	1.4	1.4	**10.9**
IS	3.5	2.7	2.3	1.7	1.6	1.5	1.8	**15.1**
Finance, Regulation, Safety, HR etc	4.3	3.1	2.3	1.9	1.5	1.2	1.0	**15.3**
Total	**34.4**	**29.1**	**22.0**	**15.2**	**10.6**	**6.9**	**5.2**	**123.5**

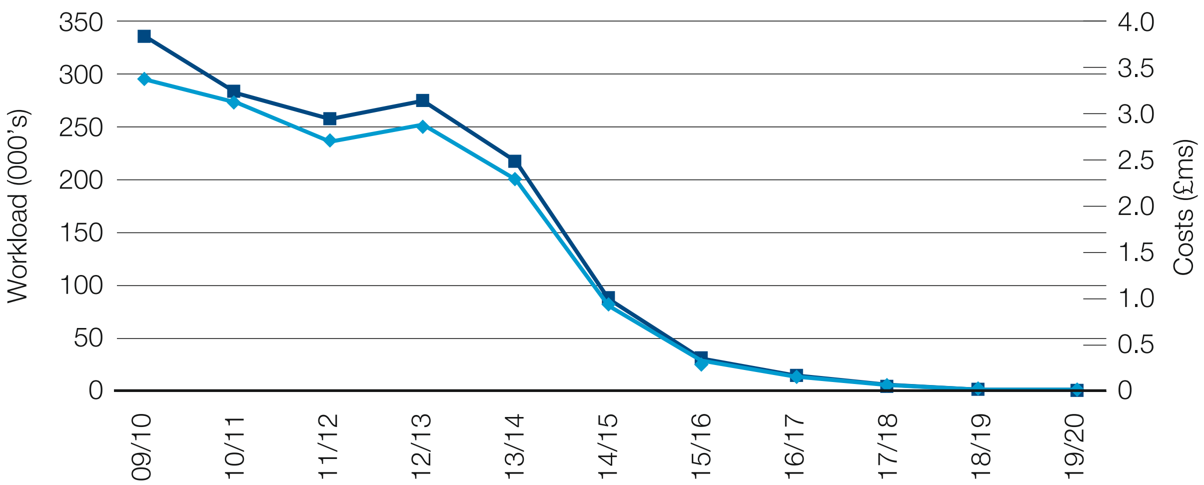
* Populations and costs exclude U6 meters in commercial properties. All costs shown at 2011/12 equivalent rates.

Table 8 – CAPEX projections

CAPEX £ms	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
CAPEX related to installs/ exchange	24.6	10.2	3.8	1.7	0.6	-	-	**41.0**
Regulator exchanges	5.7	5.2	3.9	2.5	1.5	0.7	0.2	**19.7**
PEMS meter adoptions	1.7	1.4	0.7	0.2	0.0	0.0	0.0	**4.0**
IS system investment	2.5	1.8	0.2	-	0.2	-	-	**4.7**
Total	**34.5**	**18.5**	**8.6**	**4.5**	**2.4**	**0.7**	**0.2**	**69.4**

The following graphs are based on the DECC Lower-bound case and provide historical information relating to costs, plus the projections used for the period from April 2013 to March 2020, along with the assumptions or approach against which they have been developed.

Figure 4



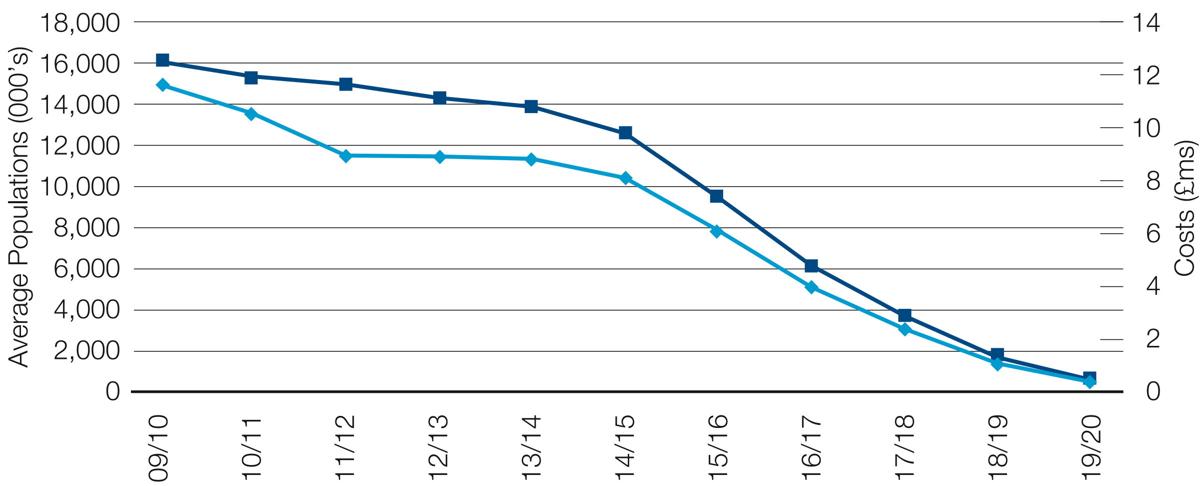
	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Workload	333	279	255	272	215	85	29	13	5	-	-
Costs*	3.3	3.1	2.7	2.9	2.3	0.9	0.3	0.1	0.1	-	-

* All costs shown at 2011/12 equivalent.

4 Our initial proposals

Our proposals assume that Domestic operational overheads associated with meter installations reduce in line with workload, reducing rapidly from 2013/14 onwards as the roll-out of smart meters accelerates. Domestic meter installation volumes are expected to be slightly higher in 2012/13 compared to 2011/12, mainly due to additional PME volumes carried over.

Figure 5



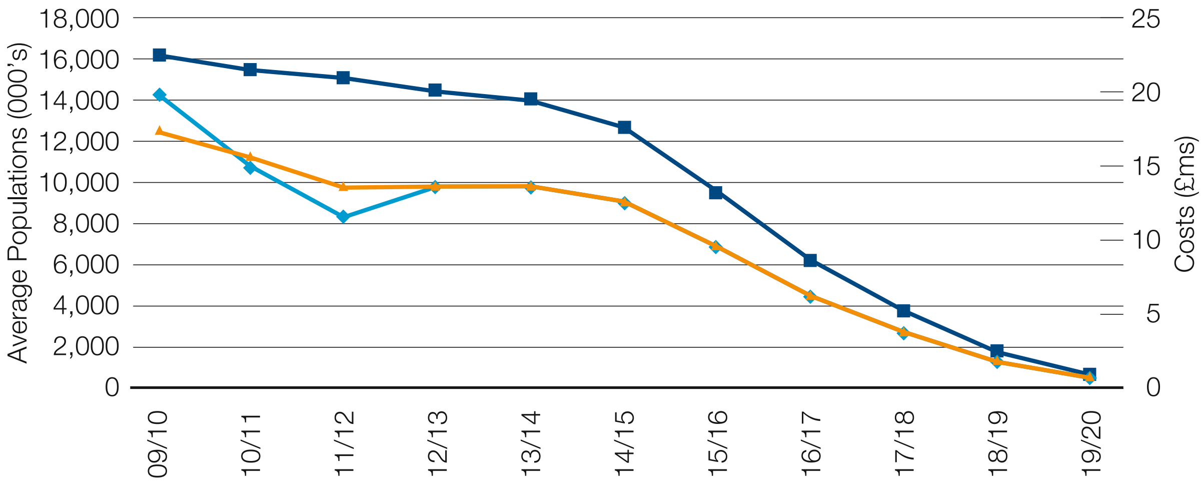
	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Populations	16,118	15,388	15,009	14,349	13,914	12,610	9,494	6,180	3,696	1,667	580
Costs*	11.7	10.6	9.0	8.9	8.8	8.1	6.1	4.0	2.4	1.1	0.4

* Populations and costs exclude U6 meters in commercial properties. All costs shown at 2011/12 equivalent rates.

Our proposals assume proportional displacement of DCM and PPM meters and that Domestic operational overheads associated with maintenance activities (currently 60p per meter per annum) 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[7] and as PPMs require more maintenance than DCMs, the slight resulting impact in the ratio of expected domestic maintenance costs we included in our high level pricing model continues to be required.

[7] 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.

Figure 6



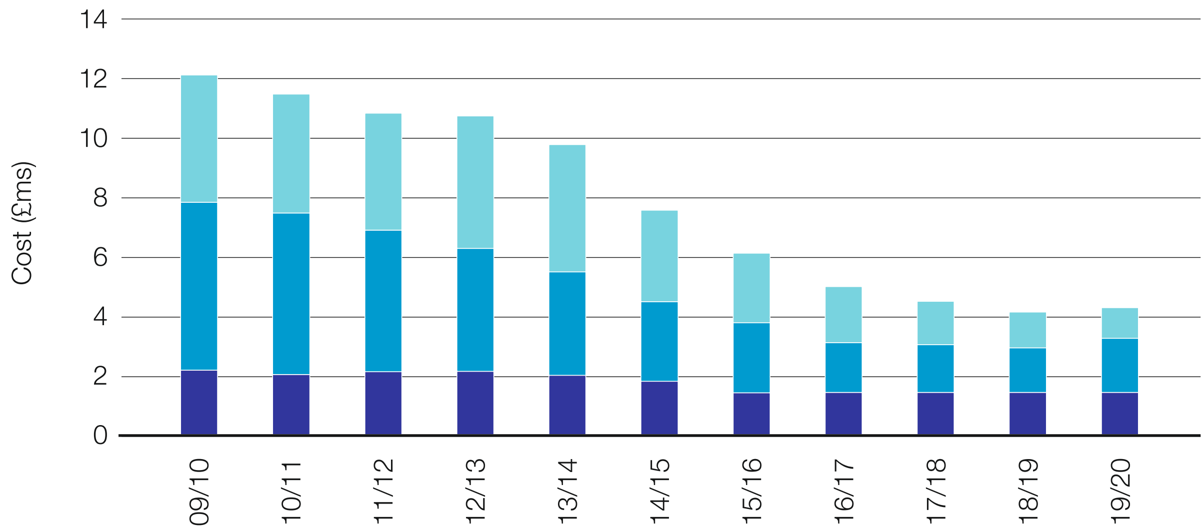
	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Populations	16,118	15,388	15,009	14,349	13,914	12,610	9,494	6,180	3,696	1,667	580
Costs*	19.8	14.9	11.4	13.5	13.5	12.5	9.5	6.1	3.7	1.7	0.6
Costs adj	17.2	15.5	13.4	13.5	13.5	12.5	9.5	6.1	3.7	1.7	0.6

* All costs shown at 2011/12 equivalent – populations and costs exclude U6 meters in I&C properties.

Our initial proposals relating to ongoing meterwork costs remain unchanged from our Approach and Pricing Model document, falling largely in line with meter populations. A significant proportion of the costs continue to relate to attending to prepayment meters. Costs for 2011/12 PPM 'Attend To' visits have been rebased, taking an average of the three years ending March 2012 and extrapolated forward in line with PPM populations. This is necessary because of the abnormally mild 2011/12 winter resulting in many fewer 'Attend-to' visits than in any year historically. Costs are directly affected by winter severity, as demonstrated by the higher than average 'Attend To' volumes seen during the winter of 2009/10 and a best estimate should therefore be obtained by forecasting a more average winter. However, considerable effort has been made to reduce the number of 'Attend To' visits by undertaking more cost-effective proactive maintenance activities. There is also a slight impact in the near term due to proportionally more PPMs being installed than DCMs.

4 Our initial proposals

Figure 7

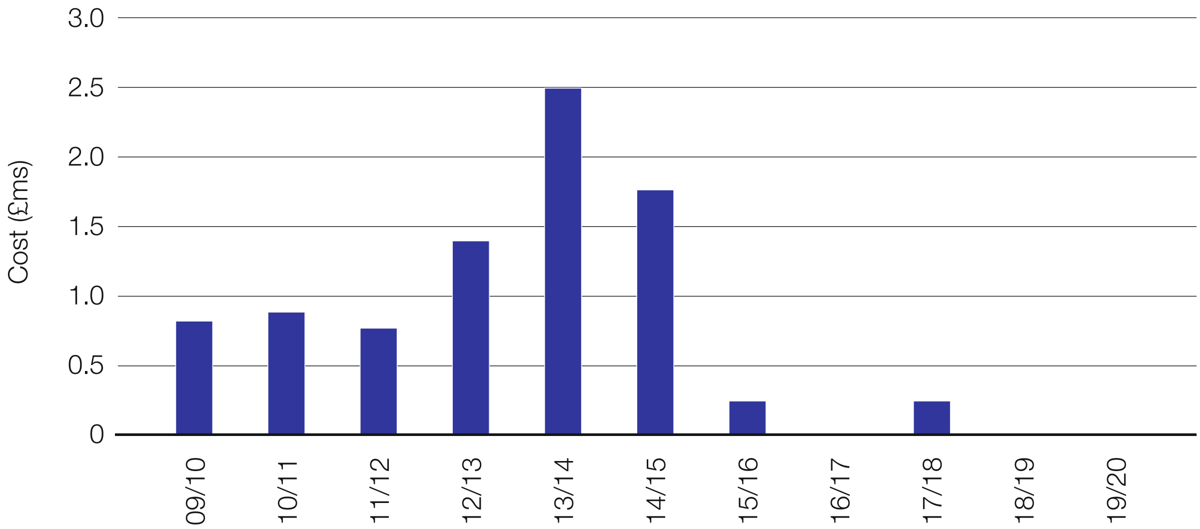


	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Other	4.3	4.0	3.9	4.5	4.3	3.1	2.3	1.9	1.5	1.2	1.0
IS	5.7	5.5	4.8	4.1	3.5	2.7	2.3	1.7	1.6	1.5	1.8
Property	2.2	2.0	2.1	2.1	2.0	1.8	1.4	1.4	1.4	1.4	1.4

All costs shown at 2011/12 equivalent.

The central costs proposed attributable to domestic metering largely consist of property, IS costs and support functions such as Finance, Billing, Change Management, HSE and Regulation and remain unchanged from our Approach and Pricing Model document. Due to their nature, these are not variable and are not generally driven by workload or meter populations. However, our initial proposals continue to assume that these costs will be reduced and property costs rationalised wherever possible, with central costs more than halving over the modelling period.

Figure 8



	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Costs*	0.8	0.9	0.8	1.4	2.5	1.8	0.2	-	0.2	-	-

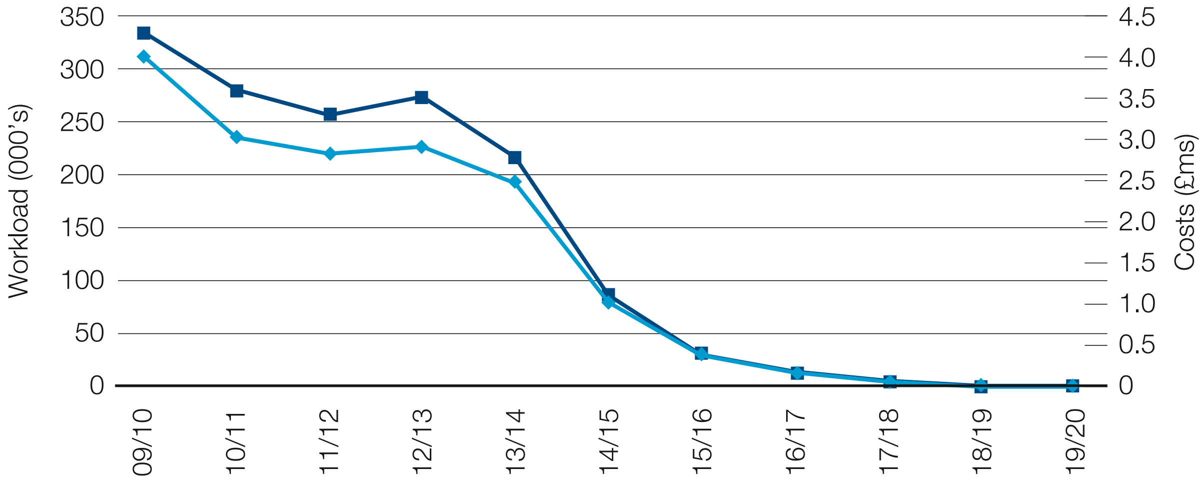
* All costs shown at 2011/12 equivalent.

Our initial proposals outline the investment in our IS infrastructure which we believe will continue to be necessary and remains unchanged from our Approach and Pricing Model document.

Significant expenditure is necessary in 2013/14 to facilitate mobilisation of a new meterwork service provider and to undertake essential upgrades of aged IS infrastructure in order to ensure the system is fit to last until 2019. We have not included any allowance for specific changes to industry data flows in our cost projections and would expect any later requirements to be undertaken at additional cost.

4 Our initial proposals

Figure 9



	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Workload	333	279	255	272	215	85	29	13	5	-	-
Costs*	40.0	30.1	28.2	29.0	24.6	10.2	3.8	1.7	0.6	-	-

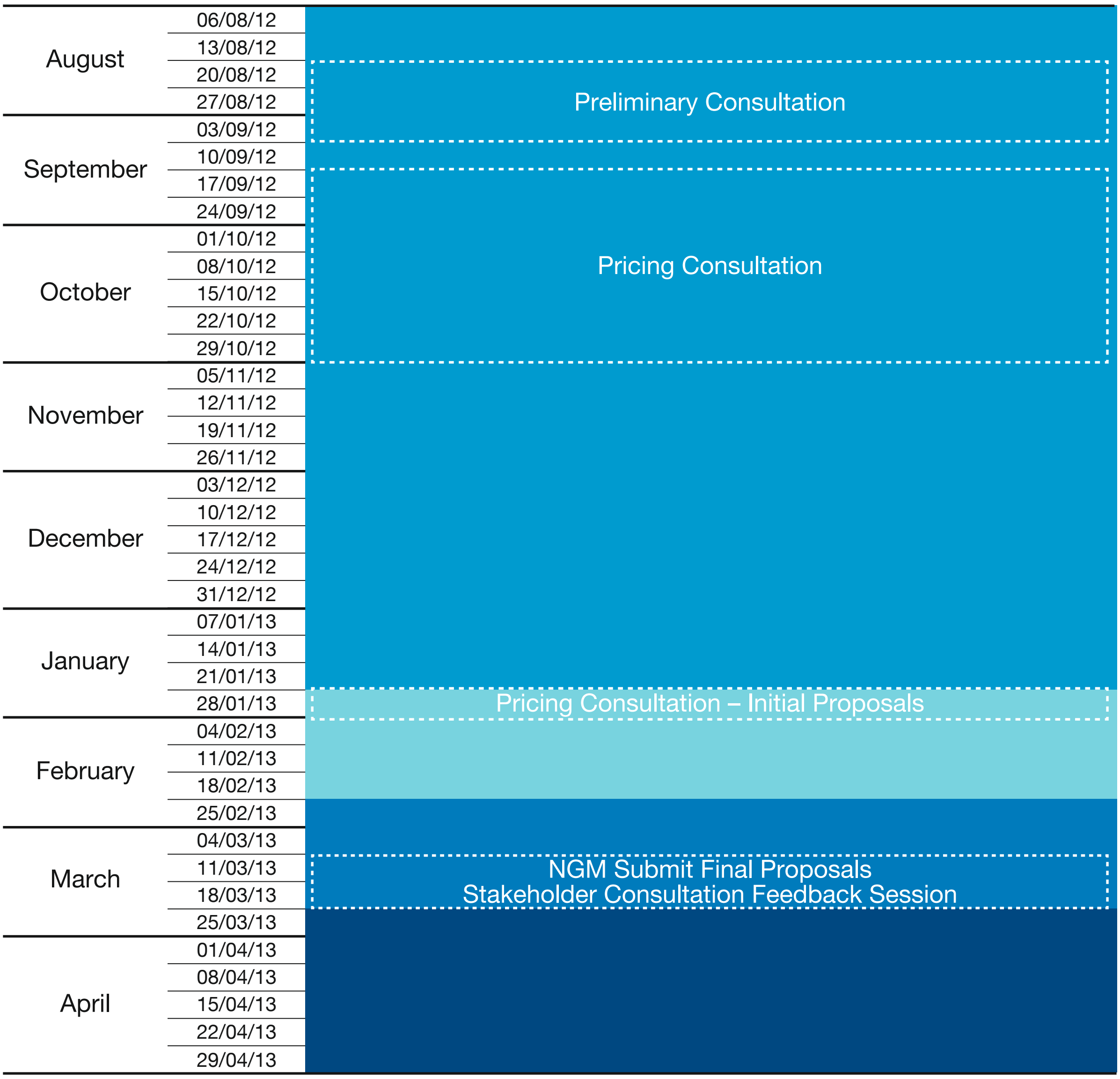
* All costs shown at 2011/12 equivalent.

We expect to continue to undertake a significant amount of work to install new meters (such as end of life replacements and exchanges where the customer requires different functionality) until the end of 2013/14. We expect Policy Meter Exchange (PME) volumes to reduce in the years to 2015 as gas suppliers undertake their own exchanges to install smart meters. Our proposals demonstrate our expectation that capital expenditure relating to meter installations (meter/kit/labour costs, etc) will decline in line with workload volumes and fall rapidly at the start of the smart meter roll-out. We continue to assume 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.

5 Next steps

5.1 Further consultation activities

A revised timeline for completion of our pricing consultation is shown below:



- NGM develop business plan
- NGM deliver initial proposals to regulator and stakeholders for review
- NGM deliver final proposals to regulator and stakeholders
- Regulator considers final proposals and commences industry consultation

5 Next steps

We welcome stakeholder feedback regarding the initial proposals we have outlined and are conscious of the greater degree of detail these proposals now contain. As a result, we have included a further discussion period to consider any feedback on our initial proposals stakeholders may provide. We will be holding an open forum in early February, where we will discuss our initial proposals and how stakeholder responses to our previous consultation questions have shaped them. Ofgem will also attend this forum and will present their initial responses to our proposals.

For those stakeholders that would prefer to offer their views in writing, please submit your response to ngm.priceconsult@nationalgrid.com by **Friday 22nd February 2013**, using the template in Appendix 3 or downloaded from our website.

5.2 Final pricing proposals

We will finalise our pricing proposals and share them with Ofgem and our stakeholders in March 2013.

Following receipt of our final proposals, Ofgem will issue a Decision document regarding their findings and undertake a further period of industry consultation, likely to be four weeks. In the event that Ofgem consents to the proposals they will then progress the licence changes necessary to implement the B-MPOLR and NMM obligations through a further period of consultation, followed by the required implementation or "stand still" period of 56 days. As a result, we expect the B-MPOLR and NMM obligations to take effect in November or December 2013.

We also intend to hold a further stakeholder feedback session later in March 2013, following the issue of our final proposals. We will explain how and where your views were 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.

5.3 Confidentiality

In our Approach and Pricing Model document, we confirmed we would respect any requests for confidentiality from our stakeholders, sharing materials only with Ofgem. This also applied to materials gathered by Engage Consulting from the workshops and bilateral meetings they held on our behalf.

We will continue to undertake the same commitment towards confidentiality regarding any feedback stakeholders may wish to submit regarding our initial proposals. If you would prefer that we did not share your views publicly, please ensure that you mark this clearly on any written documentation you provide or communicate your preference where it is collated by our team on your behalf.

5.4. Contact methods

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

Email us:
ngm.priceconsult@nationalgrid.com

Write to us:
Commercial & Regulatory Affairs Team,
35 Homer Road, Solihull B91 3QJ

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

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**

5.5. Alternative formats

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

5.6. 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**

Appendix 1 – Stakeholder organisations

Stakeholder group	Organisations
Commercial Meter Operator / Provider	Energy Assets Limited Exoteric Gas Solutions Smart Meter Solutions (SMS) Calvin Asset Management Limited
Consumer Groups	Citizens Advice Bureau Consumer Focus Energy Saving Trust National Energy Action (NEA) Which?
Energy Ombudsman	Ombudsman Services Better Energy Supply Ltd BP Gas British Gas Business Energy Solutions Contract Natural Gas Cooperative Energy Ltd Corona Crown Energy Dong Economy Gas EDF Energy ENI EON First Utility Gas Plus Supply Ltd Gazprom GDF Suez Sales Ltd Good Energy
Gas Suppliers	JP Morgan Npower Opus Energy OVO Gas Ltd Regent Gas Ltd Scottish Power Smartest Energy Ltd Social Ventures in Energy Ltd Spark Energy SSE Statoil The Renewable Energy Company

Gas Suppliers	Total Gas & Power UK Healthcare Corporation Ltd Utilita Vayu Ltd Warwick Gas Wingas
Government	DECC Fuel Poverty Advisory Group Local Authorities National Measurement Office
Health & Safety Executive (HSE)	HSE
Independent Distribution Networks (IDN)	Northern Gas Networks (NGN) Scotia Gas Networks (SGN) Wales & West Utilities (WWU)
Independent Gas Transporters (IGT)	AIGT – Association of Independent Gas Transporters E.S. Pipelines Ltd Energetics Gas Ltd Fulcrum Pipelines Ltd GTC Pipelines Ltd Independent Pipelines Ltd
Industry Groups	AMO (Association of Meter Operators) Energy UK EUA – Energy & Utilities Alliance (SBGI Utility Networks) Gemserv IGem Supply Point Administration Agreement (SPAA)
National Grid Gas	National Grid Gas – MARC
Ofgem	Ofgem
Pension Fund Trustees	National Grid Electricity Group of the Electricity Supply Pension Scheme National Grid UK Pension Scheme (Defined Benefit/Defined Contribution)
Supply Chain Partners	Various meter manufacturers

Appendix 2 – Summary of responses to consultation questions

In our Approach and Pricing Model document, we consulted on our proposals and sought views from our stakeholders on ten questions. A list of respondents and a summary of their views is detailed below.

Respondents to consultation

	Company	Respondent	Form of participation
01	Association of Meter Operators	Meter Operator	Written response
02	British Gas	Supplier	Workshops, written response
03	Calvin Asset Management	Meter Operator	Bilateral
04	Corona Energy	Supplier	Workshops, written response
05	Dong Energy	Supplier	Workshops, written response
06	Energy Assets Group	Meter Operator	Workshops, bilateral, written response
07	EDF	Supplier	Bilateral, written response
08	Eon	Supplier	Workshops, written response
09	First Utility	Supplier	Written response
10	Gazprom	Supplier	Workshops
11	Npower	Supplier	Workshops, bilateral, written response
12	Northern Gas Networks	GDN	Workshops, bilateral
13	Scotia Gas Networks	GDN	Workshops
14	Scottish Power	Supplier	Bilateral, written response
15	Total Gas and Power	Supplier	Bilateral, written response
16	Wales & West Utilities	GDN	Workshops, written response

Question 1

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

The Association of Meter Operators believe increasing competition is emerging in the I&C market and that market share indications should be the proportion of new and replacement meters being provided by NGM.

Both British Gas and First Utility consider there to be effective competition within the I&C sector. Neither believes that regulatory intervention is needed beyond those required under competition law as they would be likely to increase costs to consumers and suppliers and negatively affect the ability of smaller players to compete.

Dong Energy also feel that there is adequate competition in the I&C market but would prefer to see meter assets more transparently priced and cost reflective. Dong Energy also believe a regulatory price control should be imposed on NGM to enable competitors certainty in developing business plans and pricing strategies and encouraging stability in the I&C market.

Corona Energy believe it is difficult to consider the I&C market as fully competitive when NG currently have a dominant share but accept there is some competition, particularly for the replacement of large meters.

Scottish Power also believes that there is little competition in the I&C market, with only a few participants offering services for rotary and turbine meters. They seek clarification of intentions for domestic customers with larger meters as they believe they are not currently covered by existing regulation.

Energy Assets Group and Npower do not believe competition is effective in the I&C market due to NG's position of dominance. They suggest regulatory controls should remain in place until the NG market share dropped to a level that would not be considered dominant and Npower also suggest that barriers to competition should be reviewed and addressed.

Wales & West Utilities believe the lack of uptake of their I&C services suggests other, more attractive, service providers are operating in this market, thus demonstrating a degree of competition.

EDF seek assurances that the winding down of NGM's Domestic business will in no way cross-subsidise the I&C business and assert that metering assets should be defined by customer and not by meter type.

Question 2

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

First Utility supports the retention of tariff caps as they deliver pricing certainty and provide cost stability for domestic consumers. Dong Energy also supports the retention of tariff caps for U6 meters in the domestic and non-domestic sectors due to the falling economies of scale.

Energy Assets Group supports the retention of tariff caps, despite not being an active player in the domestic market.

British Gas state that they believe tariff caps protect suppliers who opt not to enter into alternative commercial terms.

Appendix 2 – Summary of responses to consultation questions

EDF see little benefit in changing the use of tariff caps so close to the smart metering mass roll-out but express concern over the impact that inclusion of PRCs on the six box model and the propensity for resulting pricing sensitivities depending on the number of MSA signatories.

Scottish Power and Npower agree with the retention of tariff caps but also suggest they be linked to or based on year of meter installation.

Question 3

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?

First Utility believes that, should the PPM tariff cap be removed, it would result in higher PPM prices impacting the consumer and the ability of smaller suppliers to compete on a price basis.

Npower agree that adjustments should only be made to DCM tariff caps but would like to see greater visibility of costs.

British Gas supports a cost-reflective approach to metering and suspect existing caps have had a detrimental effect on third party providers. They do, however, recognise the potential impact of the cross-subsidy on other GDNs and the potential delays to providing full smart services to prepayment customers.

The Association of Meter Operators believes fully cost-reflective charges/caps should be applied as soon as possible to ensure that inappropriate bias does not lead to unintended competitive consequences.

Energy Assets Group feel that the prepayment tariff cap is artificially low and should therefore be raised.

Wales & West Utilities expressed concern that retention of a cross-subsidy between DCMs and PPMs could exacerbate the existing issue GDNs have with managing the higher cost to maintain PPMs incur, given their portfolio's higher proportion of PPMs. This could also result in promoting the over-utilisation of PPMs and the creation of a disincentive for gas suppliers to displace PPMs. Wales & West Utilities suggest tariff caps should be placed on suppliers rather than transporters in order to allow transporters to charge a cost-reflective rate, exposing the true cost of PPMs.

Both EDF and Scottish Power agree that prepayment tariff cap should continue to be constrained. EDF suggest that removing the cross-subsidy could result in misplaced incentives and inappropriate commercial outcomes. Scottish Power requested greater clarity on the ratio of DCMs to PPMs to ensure a disproportionate charge is not levied on credit meters.

Dong Energy would like to understand further the impact of smart metering roll-out delays on prepayment enabled smart meters on the cost of I&C meter rentals to ensure no cross-subsidy occurs.

Question 4

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

First Utility understand the need to have a 'cut off' date for the B-MPOLR and NMM obligations but believe a longer period is required to ensure services remain available in scenarios where consumers might be refusing to have a Smart Meter installed.

Energy Assets Group support the descriptions in principle as they believe it makes sense for other network owners to transfer traditional meters to NG, at a nominal value, as a "distressed sale".

The Association of Meter Operators believe newly installed PEMS should be subject to commercial arrangements only and not subject to the NMM role. They also believe that it would be inappropriate to enable commercially owned or IGT assets to be transferred to NMM ownership, given that they have been provided on a previously commercial basis and at the provider's risk. They also apply this reasoning to meters above U6 provided by other network operators.

Wales & West Utilities also believe MPOLR obligations should be lifted altogether from other GDNs, thus decreasing the regulatory burden of monitoring requests undertaken via B-MPOLR and bearing the risk of a licence breach in the event of a failure. Wales & West Utilities do not see the need for the continuation of the MPOLR and B-MPOLR obligations after the commencement of the smart meter mass roll-out but consider it reasonable that NGM should continue to offer last resort meters on a voluntary basis. Regarding the NMM role, they suggest either that only assets installed under the last resort option should be adopted or that asset transfer should only occur as a one-off opportunity to prevent gaming.

British Gas and Scottish Power agreed with the descriptions of the B-MPOLR and NMM obligations and their likely duration. British Gas also seeks further clarity regarding future asset transfer mechanisms.

Npower agreed with the descriptions of the B-MPOLR and NMM obligations and suggested they should be reviewed annually in light of the smart metering mass roll-out, with adjustment of price controls also undertaken where appropriate.

EDF suggest insufficient detail has been provided in the B-MPOLR and NMM descriptions, seeking greater clarity on proposals to deal with smart timeline slippage, PEMS arrangements and the extent of the NMM obligations and closedown arrangements.

Dong Energy were concerned that there was insufficient clarity of definition between domestic and non-domestic premises, thus making it difficult for the NMM to define its scope of responsibility.

Question 5

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?

First Utility agrees that the Lower-bound case would appear to be the most likely scenario. They believe the smart meter roll-out is unlikely to specify certain meter types (although prepayment will not be targeted until a solution is available) and they will be attempting to optimise the roll-out by exchanging older meters first. In addition, roll-out is likely to be driven by technology and customer demand.

The Association of Meter Operators believe utilisation of the DECC Lower-bound case

Appendix 2 – Summary of responses to consultation questions

is a reasonable assumption but subject to a significant margin of error due to considerable uncertainty around the smart metering programme. They also point to significant risks to recovering the RAV this variability could create.

Npower support the use of the Lower-bound case but believe the approach should remain flexible, should displacement rates move away from original estimates.

Despite still being challenging, Wales & West Utilities agree that the DECC Lower-bound case is the most acceptable for modelling purposes.

Energy Assets Group believes delays to the smart roll-out will push the profile to below the Lower-bound case.

Dong Energy supports use of the Lower-bound case but suggest an additional trigger date to review roll-out, at either 30% completion or 2015, whichever is the earlier. EDF believe that meter displacement rate profiles appear optimistic and do not align with DECC projections. They would prefer the inclusion of a review mechanism or trigger points throughout the smart metering roll-out as a means to review displacement rates and resulting costs and charges.

Scottish Power do not agree with our use of the Lower-bound case, arguing that suppliers will have very different and dynamic strategies and will not be able to specifically identify particular meter types for early replacement.

British Gas feels that the DECC Higher-bound case is the most valid scenario and consider the roll-out will be driven more by technical, infrastructure practicalities and customer demand.

Question 6

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

First Utility and Wales & West Utilities support either Methodology 3 or 5. Methodology 3 was used in 2002 and thus provides a precedent scrutinised to some extent by Ofgem and Methodology 5 is considered by NGM to provide a fair and reasonably objective view of the current I&C metering RAV.

Energy Assets Group preferred Methodology 5 as they believe this would enable the attraction of sufficient investment to enable suppliers to achieve advanced metering deadlines. Scottish Power requested full view of our pricing model and resulting scenarios before stating a preferred option.

The Association of Meter Operators believe that the RAV allocation should appropriately reflect a separation of U6 meters and I&C assets, all of the U6 meters being accommodated in the Domestic allocation.

EDF preferred Option 3 but require concerns regarding the rate of MSA take-up and the resulting impact of projected PRCs to be considered.

Eon stated a preference for Methodology 2 as they feel it offers the purest calculation.

Npower stated a preference for Methodology 4 as they believe it provides a more accurate assessment of the I&C portfolio.

British Gas did not specify a preferred methodology but support the utilisation of an approach which does not unduly shock the market, offers an appropriate level of recovery for NG and enables an answer to be delivered quickly.

Dong Energy did not nominate a preferred methodology and have suggested the RAV should be revisited to ensure it is cost reflective, transparent and fair.

Question 7

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?

British Gas sees no compelling reason to change the current rate of return.

Scottish Power, EDF and First Utility's view is that the regulatory return allowed for the Distribution business remains appropriate. EDF also recognise that an additional element allowed to offset risk is reasonable as long as these risks are not accommodated in the assessment of costs included. Scottish Power, however, believe that the rate of return should not be arbitrary set in line with Distribution levels but should recognise the minimum capital expenditure required to sustain a MAM role. They do not believe that metering carries a greater risk than distribution activities. Wales & West Utilities suggest that the rate of return allowed should reflect additional risks faced by the metering business, accepting that these risks may differ between the Domestic and I&C businesses.

Npower do not feel that the Distribution business rate of return remains the most suitable basis for establishing Metering's rate and regard the risks faced by the metering business as being significantly different. Npower also believe actual regulatory returns should reflect prior returns in the asset value.

Dong Energy do not agree with utilising the Distribution regulatory return as a basis for establishing the metering rate of return and believe it should be calculated independently based on commercial risk and reward.

Energy Assets Group feels that a higher rate of return should be applied to recognise the requirements of the market after deregulation. They do not agree with linking the metering rate of return to the Distribution business.

Question 8

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?

British Gas expect all existing services to remain at existing levels but also suggest a greater degree of integration of NG and supplier processes is needed.

Dong Energy see no reason why current levels of service should not continue but suggest I&C suppliers should have a choice of replacement meters to enable more effective management of their business.

First Utility recognise the need to reduce staffing levels in line with the reduction of portfolio and require all of the existing services to remain available. They expect SLAs to remain the same for urgent works.

Scottish Power was concerned that NGM might make services too expensive to be

Appendix 2 – Summary of responses to consultation questions

cost-effective and was concerned that IT costs relating to establishing an I&C infrastructure might be funded from the domestic proposal.

Wales & West Utilities felt there should be no changes to the current services offered, or to the standards of service delivered. EDF also supported this view but stated that they believed the number of data issues encountered should reduce as smart metering progressed.

Question 9

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

British Gas and First Utility agree that the proposed assessments of future workload are reasonable, subject to ongoing review. Npower do not disagree with assessments of future workload but believe these could be highly variable and highly dependent on smart displacement.

Wales & West Utilities believe that future workloads will be driven by the pace of the smart meter mass roll-out and that this is likely to be slower than the Lower-bound case used for modelling purposes. Scottish Power was also uncomfortable with our assessments for similar reasons, citing the need for a mechanism to regularly review portfolio reconciliation against predicted displacement rates.

EDF state that assessments of future workloads should be based on DECC's roll-out model and include a review mechanism linked to the DECC plan.

Dong Energy believes domestic workload may increase as a result of smart roll-out but that the use of NGM's HAM methodology to prioritise the exchange of faulty meters may help.

They also require more thought or accommodation made for the installation of Smart Meter Engineering Technical Specification (SMETS) compliant meters. Energy Assets Group also believe NG will experience increased demand from suppliers in the I&C sector until 2014 but diminishing thereafter.

Question 10

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

British Gas, Scottish Power, Dong Energy and First Utility do not anticipate any requirement for changes to industry data flows.

EDF see bulk change of agents resulting from asset transfers as the most challenging impact on industry flows and also suggest change of meter flows will need to change if the NMM adopts B-MPOLR installations. EDF question whether the existing use of market participant and contract IDs may also be impacted by the proposed new obligations and industry arrangements.

Wales & West Utilities point to implications for PEMS traditional and smart meters but acknowledge this is outside the scope of this consultation.

Npower seek asset tracking for MAPs and MAP tracking for suppliers.

Energy Assets Group requested MAM and Supplier data to be visible for MPRNs and state they feel this is critical if a meter churns from one supplier to another.

Appendix 3 – Initial proposals response template

Name/Organisation:

Contact details:

Q: Do you consider our initial proposals to be reasonable? If you have alternative views, please outline where they differ.

Please return your completed response to the following:

Email NGM.priceconsult@nationalgrid.com

Post Commercial and Regulatory Affairs, 35 Homer Road, Solihull, B91 3QJ

THANK YOU FOR YOUR REPLY

Appendix 4 – Glossary

AMR – Automated Meter Reading
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 Resort
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.

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.

Notes

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