



# **National Grid Metering RoMA Consultation**

**Workshop 2 – 3<sup>rd</sup> October 2012**



INVESTOR IN PEOPLE

# Workshop 2 - Agenda

- |   |               |
|---|---------------|
| 1. Introductions  | 9.30 – 9.45   |
| 2. NGM Presentation   | 9.45 – 10.15  |
| 3. RAV Assessment & Allocation – Options                    | 10.15 – 12.00 |
|   | 12.00 – 12.30 |
| Lunch   | 12.30 – 13.00 |
| 4. Rate of Return Methodology & Assumptions                 | 13.00 – 14.00 |
|   | 14.00 – 14.30 |
| 5. Derivation of Tariff Caps & Revenue Requirement Equation | 14.30 – 15.30 |
|   | 15.30 – 16.00 |

# Housekeeping

1. Fire Alarms / Evacuation Procedure
2. Bathrooms
3. Coffee / Tea
4. Lunch
5. Phones
6. WIFI

# Introductions

1. Name / Role / Organisation etc
2. Any particular subject interests...

# Modus Operandi

1. Objective - to hear your views
2. Mix break out single group sessions - interactive
3. Confidentiality
  - Default – industry role
  - Specify other and we'll respect
4. Range topics – some commercially significant
  - Hear your views
  - Hear views of others
  - Respect everyone's view

# National Grid Metering

1. Consultation Document
2. Here – to add context...
3. Questions
  - Basic points of clarification - ok
  - More detailed – take away

→ Katrina Reidy

## Pricing Consultation Workshop 2



3 October 2012

Katrina Reidy

# Agenda

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- Financial modelling approach
- Domestic Revenue Requirement
- Methodology for setting tariff caps
- Rate of Return
- Model outputs/proposed tariff caps
- RAV Allocation



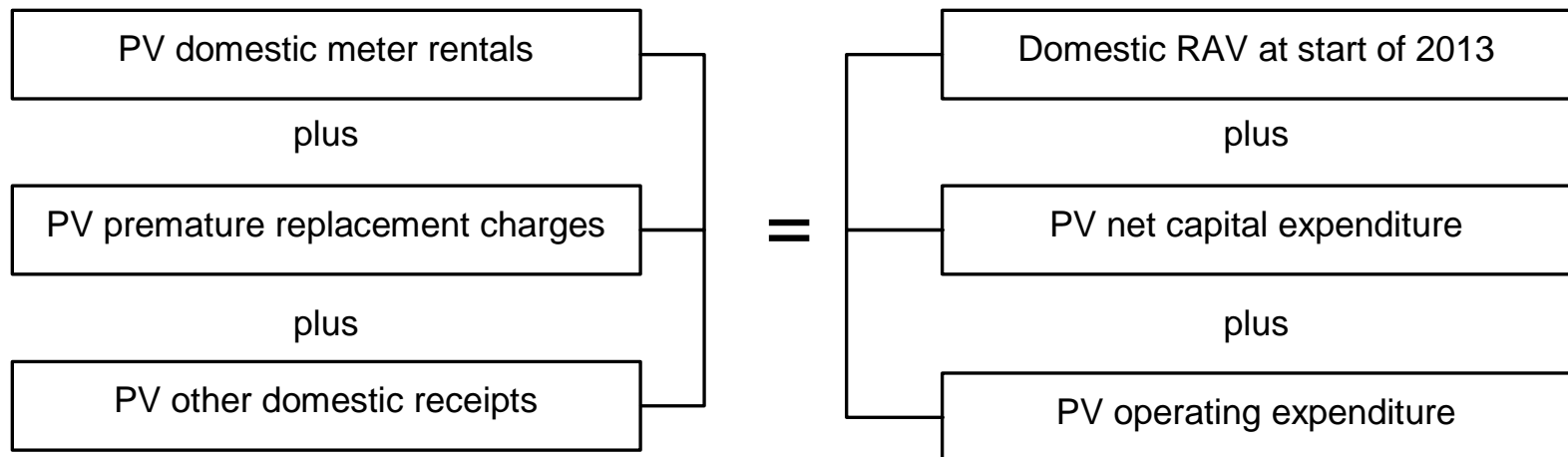
# Financial Modelling Approach

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- A financial model has been built to support the Price Consultation which has been reviewed by Ofgem;
- The model has been developed so that scenario analysis can be undertaken on certain inputs, e.g:
  - Meter displacement rates;
  - Rate of return;
  - RAV allocation between Domestic and I&C
- The majority of the cost input are based on 2011/12 regulatory accounts, projected forward to reflect reductions in populations and workload;
- The review period is 1<sup>st</sup> April 2013 to 31<sup>st</sup> March 2020;
- The output from the model is summarised in the approach document

# Domestic Revenue Requirement

- Ofgem set out the revenue requirement equation in their policy decision document on 25 July 2012:



- This equation is comparable with the traditional regulatory 3 box approach;
- Any premature replacement charges received by National Grid under the New and Replacement MSA contract will be taken into account in this equation.

## Methodology for setting tariff caps

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- The price consultation covers three tariff caps (rental charges for domestic credit meters, rental charges for prepayment meters and transactional charges for credit to prepayment meter exchanges).
- The proposed tariff caps assume the following:
  - The prepayment meter rental tariff cap is kept at the current level;
  - The transactional charge for credit to prepayment meter exchanges is recalculated to be more reflective of actual costs;
  - The domestic credit meter rental price is adjusted to fulfil the revenue requirement.
- The calculation of the tariff cap divides the revenue requirement for domestic credit meters by forecast populations.

## Rate of Return

- The revenue requirement equation utilises a pre tax, real return;
- The Weighted Average Cost of Capital (WACC) proposed to fund the Distribution business should be a suitable benchmark to set a rate of return for this price consultation;

	<b>RIIO GD1</b>		<b>Converted to pre tax</b>	
	<b>NG Proposal</b>	<b>Ofgem</b>	<b>NG Proposal</b>	<b>Ofgem</b>
Cost of equity (post tax real)	7.2%	6.7%	9.47%	8.82%
Cost of debt (pre-tax real)	3.20%	3.03%	3.20%	3.03%
Notional Gearing	59%	65%	59%	65%
Vanilla WACC	4.8%	4.3%	5.77%	5.06%
Meterig risk Premium			0.75%	0.75%
Pre tax, real rate of return			6.5%	5.8%

- The risk premium of 0.75% is consistent with that applied at the last Metering Price Control and reflects the increased uncertainty in metering activities compared with the Distribution business;

## Model outputs/proposed tariff caps

- The model outputs based on a DECC Lower-bound Smart meter roll out and a RAV allocation based on Ofgem's methodology 3 are as follows:

Allowed Return (DRAFT)	6.50%
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<b>£ms*</b>	<b>13/14</b>	<b>14/15</b>	<b>15/16</b>	<b>16/17</b>	<b>17/18</b>	<b>18/19</b>	<b>19/20</b>	<b>Total</b>
Opex	34	29	22	15	11	7	5	<b>123</b>
Capex	35	19	9	5	2	1	0	<b>70</b>
PV of Opex & Capex	67	43	26	16	10	5	4	<b>171</b>
RAV as at 1st April 2013								<b>731</b>
<b>Total Revenue Requirement</b>								<b>902</b>

<b>£ms*</b>	<b>13/14</b>	<b>14/15</b>	<b>15/16</b>	<b>16/17</b>	<b>17/18</b>	<b>18/19</b>	<b>19/20</b>	<b>Total</b>
Meter Rentals	248	225	170	110	66	30	10	<b>859</b>
PRCs	9	28	54	29	27	16	5	<b>168</b>
Other receipts	7	2	-	-	-	-	-	<b>8</b>
<b>PV of Income</b>	<b>255</b>	<b>232</b>	<b>191</b>	<b>112</b>	<b>70</b>	<b>32</b>	<b>10</b>	<b>902</b>

\*All shown at 2011/12 equivalent costs

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

	<b>Proposed</b>	<b>Current</b>	<b>Variance</b>
Domestic Credit Meter Rental per annum	£17.02	£16.07	£0.95
Prepayment Meter Rental per annum	£37.49	£37.49	£0.00
Customer Requested Exchange Transactional Charge	£76.43	£65.73	£10.70

## RAV Allocation

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- In the 2002 Price Control Review, Ofgem confirmed that the allocation of RAV to metering was £1.5bn;
- A split between Domestic and I&C was determined by NG at this time, which was based on depreciated replacement costs;
- The RAV was then rolled forward using the agreed principles:
  - adding capex less customer contributions / deferred income;
  - deducting annual depreciation in respect of new capex using a 15 years straight line method;
  - deducting annual depreciation in respect of the RV existing at 31.3.02 using a 20 years Sum of the Digits method;
  - ceasing to apply terminal depreciation: instead disposal proceeds are deducted (including premature replacement charges); and
  - adding RPI.
- This split of the RAV is consistent with Methodology 3
- Ofgem have proposed four additional methodologies that could be used to split the between domestic and I&C.

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# RAV Allocation - Discussion

For each Option consider:

1. Do you agree with NGM's view of this Option?
2. If no, how do you see it being applied?

Following review of 5 Options we will break into 2 Groups to consider Pros & Cons of each and ultimately rank options.

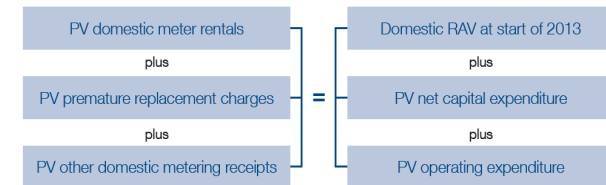


# RAV Assessment & Allocation Ofgem Option 1

1. An allocation that preserves the current relationship between tariffs for domestic and I&C metering services.

## NGM View:

- Inconsistent with the domestic revenue equation
- Assumed that I&C assets will remain in service beyond 2019.
- Calculation under this methodology would either
  - fail to allow for the depreciation of the domestic RAV by 2020 in line with Ofgem's analysis of domestic metering or
  - would imply that tariffs in I&C metering should be set unsustainably high to accommodate an artificially rapid (and unrealistic) depreciation.



# RAV Assessment & Allocation

## Ofgem Option 2

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

**NGM View: Fundamental analysis against this method would require:**

- Detailed assessment of the current replacement costs.
- Potential subjective nature of this analysis for I&C sites.

**As an alternative**

- Replacement cost estimated from historic values where these are available along with discrete new quotations where historic data is inappropriate for this purpose.
- May be difficulties in obtaining independent validation of the RAV calculation given the number of assumptions and cost predictions implicit in this method.

# RAV Assessment & Allocation

## Ofgem Option 3

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

### NGM View:

- This allocation was used as the RAV split when formula (business) rates were removed from the metering price control.
- It has therefore been subject to some scrutiny by Ofgem in the past.  
**BUT:**
  - It was not informed by the broader policy issues relevant to separating the two parts of the business for price control purposes.
  - It was done in 2002 - is it still appropriate?
- This methodology is readily available and NGM have used it in the 'Approach and Pricing Model' Consultation document to illustrate the effects and sensitivity of the calculations to variances in other factors.

# RAV Assessment & Allocation

## Ofgem Option 4

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.

### NGM View:

- At its heart this method requires the same assessment as methodology 2 and is thus similarly subjective.
- The difference with this method is the replacement costs for domestic meters would not need to be specifically determined because the domestic RAV would be calculated by subtracting the I&C RAV from the total metering RAV.

# RAV Assessment & Allocation Ofgem Option 5

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.

## NGM View:

- Focuses on the future net revenues that might be available from the I&C business.
- A full analysis of all future revenues would require considerable speculation regarding the potential growth of National Grid's I&C business, the costs for such investments and the associated costs for its operations.

## Simplifying alternative:

- Evaluate the value of the current RAV takes only existing assets with I&C rental rates set at a level to mitigate premature removal of those assets.
- NGM are seeing increasing competitive displacement in this sector so the assumptions may slightly overstate the remaining asset lives.
- Despite this NGM believe it is a 'fair value' approach to valuing those already existing I&C assets, it avoids the need to speculate on future investments

# RAV Allocation - Groups

For each Option:

1. Capture Pros & Cons of applying each Option

THEN

2. Once all options considered, how would you rank them?

- Break into Groups indicated
- Re-convene at 12.00pm to share and consolidate views

# Groups for Breakout Sessions

## Group 1 (Here)

- Simon Keay (NP)
- Ruth Thomas (NG)
- Robert Install (SGN)
- Dave Harper (Dong)
- Mark Worrall (EON)
- Gareth Mills (NGN)
- David Speake (BG)

## Group 2 (Air Cobra)

- Andy Caunt (BG)
- Phil Balfe (NG)
- Bob Smyth (SGN)
- James Thompson (EON)
- Shobeag Khatun (NP)
- Kenny Cameron (EA)
- Steve Mulinganie (Gazprom)
- Cemal Huseyin (Ofgem)

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# Rate of Return - Background

- In 2002, the rate of return = 7%. This was determined by
  - 6.25% rate allowed for the distribution business and
  - adding 0.75% to recognise the additional financial risks inherent in metering
- NGM believe that the weighted average cost of capital (WACC) determined for the funding of Distribution businesses provides an appropriate benchmark for the rate of return required for utility metering.
- NGM propose utilising a rate of return which is derived from the outcome of the NGG RIIO-GD1 consultation.
  - Consultation document used the NGG proposed rate of 4.8% (post tax real) and maintains the relationship with the methodology established in 2002.
- NGM propose continuing to add 0.75% risk premium

# Rate of Return – Summary

Component	2002	NG 2012	Ofgem 2012
	%	%	%
Cost of Debt			
Risk-free rate	2.75%		
Debt risk premium	1.90%		
<b>Cost of Debt</b>	<b>4.65%</b>	<b>3.20%</b>	<b>3.03%</b>
Cost of Equity			
Equity risk premium	3.50%		
Gearing %	62.5	59	65
Equity Beta (value)	1.0		
<b>Post tax cost of Equity</b>	<b>6.25%</b>	<b>7.20%</b>	<b>6.70%</b>
Taxation Adjustment (multiplier)	1.43	1.32	1.32
Pre-tax cost of equity	8.9%	9.5%	8.8%
WACC Post Tax	6.25%	5.77%	5.06%
Risk Premium	0.75%	0.75%	0.75%
<b>Proposed Rate</b>	<b>7.0%</b>	<b>6.5%</b>	<b>5.8%</b>
Implied Vanilla WACC %	5.3%	4.8%	4.3%

# Rate of Return – Group Questions

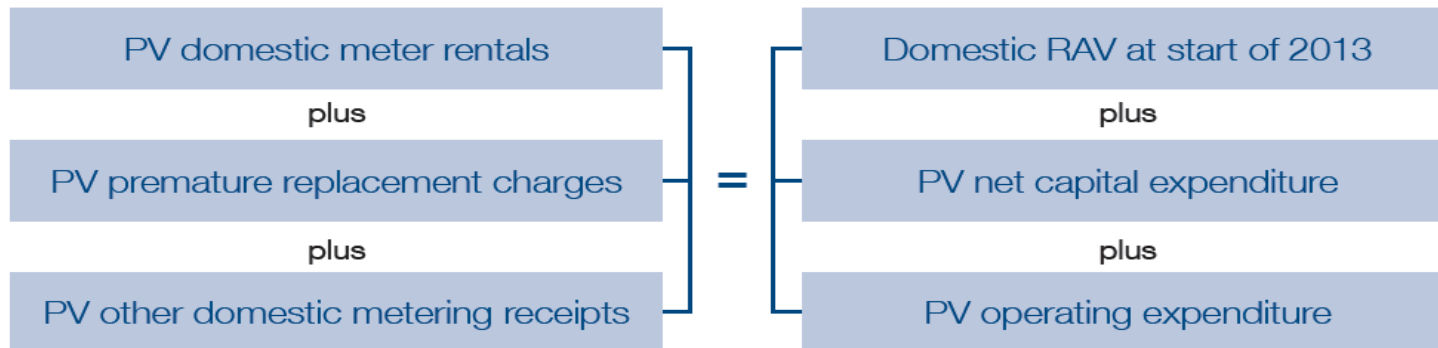
1. Views regarding basing derivation of RoR on 2001 approach?
    - Networks rate as base
    - Add Risk Premium linked to added risks in Metering
  2. If not this approach, what other one would be suitable in your view?
    - Why would they be better?
    - How would this be undertaken?
    - Would it fit into timescale laid out by Ofgem?
- 
- Break into Groups indicated
  - Re-convene at 2.00pm to share and consolidate views

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# Ofgem 6 Box Methodology

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



NGM have made assumptions of:

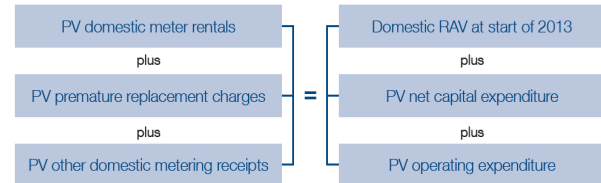
- Prepayment meter rental tariff cap is kept at current level
- Transactional charge for credit to prepayment meter exchanges is recalculated to be more reflective of actual costs
- Domestic credit meter rental price is adjusted to fulfil the revenue requirement

# Ofgem 6 Box Methodology

## Summary Financials

### Domestic revenue requirement equation

Allowed Return 6.50%



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Other Receipts	7	2	-	-	-	-	-	<b>8</b>
<b>PV of Income</b>								<b>902</b>

\* All shown at 2011/2012 equivalent costs

# Derivation of Tariff Cap - Breakout

Views on NGM assumptions regarding:

- Prepayment meter rental tariff cap is kept at current level – Views?
- Transactional charge for credit to prepayment meter exchanges is recalculated to be more reflective of actual costs – Views?
- Domestic credit meter rental price adjusted to equate PVs
- Break into Groups indicated
- Re-convene at 3.30pm to share and consolidate views

# Wrap Up Session

- Recap on key points from each session
- What happens next





**Any Questions?**