RPI-X@20

ALISTAIR BUCHANAN – CEO OFGEM

BEESLEY LECTURE – LONDON 2 OCTOBER 2008

"IS RPI-X STILL FIT FOR PURPOSE AFTER 20 YEARS?"

Other relevant speeches by Alistair Buchanan are included:

"New England – A market based model in crisis?" – Oxford – 25 September 2008

"Facing up to the Better Regulation Challenge" – London – 29 November 2005

Slides for speeches on website (www.ofgem.gov.uk)

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(35 PAGE SLIDE PRESENTATION ON OFGEM'S WEBSITE)

SETTING THE SCENE

"Dan was an elderly man who loved his gardening – particularly his vegetable patch. However as he got older his son John used to dig up the garden. John was a bit of a bad lad and one day his activities landed him in jail. Consequently the garden started to deteriorate and Dan wrote to John in desperation about what he should do as he had no money.

A few days later to make Dan's life even worse the police turned up and told Dan that they suspected John of being a murderer and that they had good reason to believe that there were bodies in the garden. They proceeded to dig and search.

Dan was a quite broken man until a letter arrived a few days later from his son – it read "Presumed police listened to my conversation to a mate about being a murderer – sorry to worry - you but at least I ensured that you can plant your tomatoes this year."

Ofgem is about to do a bit of digging in its "own back garden" through the RPI-X@20 review. And as I shall illustrate that regulatory garden has delivered a strong crop of savings and healthy customer benefits.

In 2010 electricity regulation will be twenty years old, and Ofgem intends to celebrate that event by presenting a two year review of the regulatory regime that has been such a success story for Great Britain. I use the words 'celebrate' and 'success' in my opening sentences as it would be easy to read into our announcement of a review, either failure or dissatisfaction. The RPI-X price control formula has a track record over two decades of delivering much lower network prices, better quality and service and substantial increases in investment by contrast to the nationalized industry days.

Even so, the time is right for a review and our ''RPI-X@20'' project comes at a time when there is considerable academic interest in energy network regulation, and the companies themselves have expressed a desire to analyse the effectiveness of the current model.

From a business perspective the timing works very well: for the last four years we have been delivering five sets of price controls and we now have a period of relative calm in the Networks Division to enable us to consider the future.

Finally we have to judge whether the current crisis in the financial markets has important messages for Ofgem's approach to regulating the companies. I return to this at the very end of my speech.

SECTION 1: ''RPI-X@20 – CATCHING THE MOOD OF CHANGE?"

Internally we see this project as part of the renewal programme to which I refer in our 2008 Annual Report and Accounts. In general 2008 has been a transforming year for our Networks Division. We are pushing forward on transmission access reforms, inviting bids from the transmission companies to find new ways of getting power to market – notably the subsea cable routes - and also providing a long-term strategic route map. This latter report (called the Long-Term Electricity Networks Scenario Report – "Lens") will be published shortly.

So, the RPI-X@20 project fits into the general theme that Ofgem is alive to the fact that we are at a critical junction in the development of GB's network's.

Clearly this mood is felt quite widely – and our announcement on 6 March to carry out our review tapped into this and has been the catalyst for an outpouring of views. From challenging articles such as Martin Wolf's in the Financial Times[11] through to more focused comments from Phil Burns of Frontier Economics[12] in Utility Week there is an appetite for this review (The links to these articles are in my footnotes).

What we all have to strive to do is to try and keep the focus on the cart (the policy and methodology) and not get sidetracked by visions of the horse (the regulators!!). There is a time to focus on the "horse" but I would argue at this stage let's examine the cart.

Having said this, Regulators have to live with the horse being regularly kicked.

An economist, an investment banker and a senior employee from Ofgem died and went to hell.

The economist approached the devil and said "I miss my office – can I call them and ask them how well they are doing – so he called and talked for 5 minutes. "How much did the call cost devil?" – for an economist and all that misery you caused in the price control reviews for consumers – I say £1million.

The investment banker then chimes up and asks the devil the same request – this time it costs £10million for just 5 minutes.

Finally the Ofgem staffer going to the devil and says I would like to call the office – it is granted and he talks and talks – he then asks the devil how much it costs – and the devil says £20 and the employee is stunned – "just £20 for my call?" To which the devil said "calls from hell to hell are considered local".

SECTION 2: RPI-X – A VERY SUCCESSFUL PRODUCT

On an array of measurements the incentive and comparative based price control formula, based on a model of RPI-X, has been hugely successful. No doubt a book has been written about how well this model has served an array of infrastructure based industries, spawned an advisory and investment banking business, and has been exported overseas. In this paper we are focused on energy networks and the 'wins' for RPI-X over the last two decades are impressive:

* **Prices down**: Since 1990 the electricity distribution charges for consumers have been cut by 50% and transmission charges by 41%. The NAO (see slides) showed that the DNO's achieved 7.7% annual operating expenditure (opex) reductions in the 11 years to 2003, and even the local gas networks (who were not broken up into the competing ownership model until 2005) were estimated at having made 4.3% opex cuts annually.

* **Quality up**: The bare figures tell a good story – in the fifteen years to 2005 power-cuts were reduced by 11% and the duration of those interruptions by 30%. Quality of service and consumer expectations have become more central to the price control reviews in recent years, and the DNO's are now exposed to a 3% swing on their revenues depending on their service quality. Quality of service indicators were introduced for the first time on the gas distribution network companies in December 2007, and in preparation for DPCR5 (electricity distribution businesses fifth price controls) Ofgem is looking at how we can tap into Consumer expectations and desires more that we have in the past. The latter being instigated through our successful Consumer First project. On Wednesday (1 October) we announced the creation of our new panel of 100 energy consumers who will help Ofgem to focus on energy issues that matter most to them.

* **Investment up**: Contrary to scare stories about assets being irresponsibly sweated since 1990, the investment story is singularly impressive. Indeed National Grid's reliability continues to be a world beater. In pounds invested the contrasts with the 1980's nationalized model are stark. In transmission alone in the 1980's National Grid (when part of the CEGB) invested just £0.25 billion a year. In the fifteen years to 2005 investment rose to £0.4 billion a year and in its latest regulatory package, to run to 2012, that figure is £1.5 billion per annum. The figures for the DNO's are much the same: £3.8 billion 1986-1990 pre privatization, 1990-2004 £15.5 billion and 2004-2009 it will be £7.4 billion.

* **Cost of capital down**: Long gone are the days of the 8.5% pre tax WACC of 1990 (see slides). Ofgem has currently secured for GB customers rates just hovering above the 6.0% pre tax level.[7] These levels are not only competitive with other UK regulated concerns but also favourable by contrast to energy companies in Europe.

In the transmission price review of 2006 Ofgem estimated that a 1% move on WACC was worth to the consumer £125million.

We believe that these low levels have been secured because of the consistent and stable regime adopted by energy regulators since 1990.

The resilience of the price control package and its suitability allowed for a substantial change in supply and demand patterns since 1990. Overall we estimate that 30GW of new generation has come onto the system and 24 GW has left. The pattern was crudely gas fired stations on and coal and nuclear off, and clearly a common feature – whatever the fuel source - has been large scale generation units.

A successful price control model must not be static and it is here that the evolution of the model has enabled it to meet society's changing demands and priorities. The most obvious impact has been in sustainability – gone are the volume drivers from the transmission and gas network price controls. Included now in the price controls are an array of measures designed to promote and protect sustainability. On the environmental side a range of measures on cutting emissions, incentives on reducing losses, through to funding allowances for research and development into 'green' projects. On the social side the improvements in incentives for gas rural connections and provision for enhanced gas leakage monitoring equipment have all been covered in recent price control reviews.

In meeting society's changing demand and priorities Ofgem has adopted a range of features to the price controls that have the effect of changing the original plans as laid down by the framers in 1990. Examples would include:

- Line-base regulation rather than an holistic review of opex once every five years … monies are set aside, in a straight line manner - for the Innovative Funding (IFI) and Registered Power Zones (RPZ) initiatives.

- Individual capex settlements. The most obvious examples being in 2004 when £560million was agreed by Ofgem for the four new lines in Scotland to bring renewable power to England. This settlement occurred outside of the normal five year regulatory cycle.

- Generous incentives…particularly to promote sustainability based schemes, such as distributed generation.

- Differential cost of capital rather than one level fits all, such as was awarded to the 2004 projects mentioned above.

It is in this list that you have the clues to the next section in the paper as the direction and composition of the RPI-X formula has been stretched…some would argue a long way from its original design.

SECTION 3: WHY CHANGE A WINNING FORMULA?

The dry business response to this question is that any business which has a leading product and does not give that product at the least ''a regular MOT'', and more properly at intervals ''a good overhaul'' is simply not running itself very well. At times we need to ask the questions and the answers may turn out to be alarmingly simple. **Let me remind you of the classic tale of the lorry that gets stuck under a bridge and a crowd gathers and no-one knows what to do – some say tear the top off the lorry, others say dismantle the bridge – the argument rages – top off lorry or dismantle the bridge. Finally a small child at the back asks "why don't you let the tyres down"?**

At Ofgem we are very aware of the benefits to consumers of a stable reputation in the stock market that comes from clear and consistent regulation. With five price control reviews in four years (2003-2007) we were able to do just that.

The upshot is that we can now combine 'good business' with 'good timing' and so just two months after the gas price controls have been accepted and agreed we announced in March 2008 a formal review of the 'RPI-X@20'.

Other reasons are pressing in for us to do this now:

- We need to **utilise the evidence** we are picking up from the 2004 DPCR4 price review. For example we are very concerned about the lack of input from many of the DNO's in the pricing methodology debate – an effort they promised in good faith at DPCR4. At last I think we are getting somewhere as the DNO's do agree that a common methodology is desirable. We are reaching the "witching hour" on this issue and the DNO's would do well to understand that our patience is running low.

- The Government has just announced **very aggressive renewables targets for 2020**, and this together with our 2004 sustainability duty, may well shape our thinking.

- There are **new network dynamics** that could affect the appropriateness of the current regulatory regime, such as new nuclear connections, heavy promotion of distributed energy solutions or smart grid developments. Our approach – consistent with the past – is to have a regulatory structure that is flexible to meet new challenges but doesn't pick the winners.

- The announcement of the BE-EDF deal and the **prospect of new nuclear stations** clearly have network implications:

  - The balancing and reserve needed to support the new plant.
  - Additional physical network construction.
  - The impact of new nuclear on the "new connections list of NG".

- We also have to assess whether the UK model will fit in with **the new European network regulation** expected to be managed by the European Agency Regulatory body. With the third package hopeful to proceed in 2008 Ofgem's ''RPI-X@20'' review team should have plenty of time to feed the implications into our project.

Given my personal background and the jobs that I have done I need to mention particular interests of mine in this 'RPI-X@20' review.

- A few years ago I wrote a wide ranging speech on better regulation for the Institute of Economic Affairs[2], and in that speech I referred to my worries over the **increasing complexity of price controls.** Not only does it appear to fail the BRE's (Better Regulation Executive) urgings of simplicity but I also wonder what the original framers of RPI-X in the late 1980's would have thought about a process that after 20 years experience takes two years of intensive consultation … and this at a time when arguably the most debatable aspects of price controls (that of opex savings) has been exhausted. I do worry about very clever schemes in our price controls such as the IQI sliding scale that are virtually unfathomable to all but the most fanatical price control groupie!

- Secondly, I worry that Ofgem (particularly given my accountancy and finance background) have not fully **understood a paradigm shift in financing**. I have to sit up when I read a City research report headed "United Utilities eye-popping deal raises important questions".[10] It could be that it is a case of 'plus ca change' that we witnessed in the collapse of the dotcom and IPP energy companies a few years ago. Alternatively we could be misrepresenting consumers' best interests by arguing that the tried and tested financial parameters used by Ofgem are still suitable.

- Whether there has been a shift in financial valuations or not there still remains the **spectra of company failure or requests for financeability** hand-outs. Fortuitously Ofgem has not had to handle either so far. It did come close to the former in 2002 with Avon Partners and Midland Electricity and it did award EDF Seeboard a stipend of £12million financeability award in 2004. The latter for unique circumstances with regard to capex under-funding in the 1990's and its small RAV.

  Even still, both capital markets and companies I believe would benefit from greater clarity about whether Ofgem's current tool kit of cash lock downs and special administration would suffice. Also I am concerned that the tool kit relates to actions after a company failure rather than guidance on what a company might expect during a price control negotiation should it become apparent that financeability is a big issue.

- A great deal of interest has focused on **index-linked debt** with the argument being that it carries an undue risk to customers and Government in the longer term. The financier, John Reynolds is particularly vocal in this regard.[13] Numerically the concern is that even through inflation has been pegged at 2-3% in the last decade in the thirty years 1967-1997 there were only six years when inflation was below 3.5%. So in a rising inflation environment what is the impact on the company?

Returning to my opening theme of this section – that of timing. It could be that the 'RPI-X@20' team takes the view that the gas distribution network companies are on a different part of the regulatory cycle and that changes to the DNO's or TO's might be quite different from the GDN's because of that.

SECTION 4: THE SCOPE OF THE REVIEW

The ambition of this review is substantial: we want to look at the big picture and the local "moving parts".

The RPI-X@20 review team will want to dip into a number of wells to get its bearings for the big picture review:

- **Academic:** Stephen Littlechild, the brains behind the RPI-X model, together with Doucet and Pollitt[1] have been advocating quite different approaches to regulation recently and probing whether a consumer advocate , public contest or easier settlement models are the next step for GB[3]. Closer to home leading voices such as Derek Holt (on financeability, and company failure through systemic risk[5]) and Dieter Helm (notably on split cost of capital[6]) have been testing the current model.

  Ofgem's own in-house consultant Dr Michael Pollitt of Cambridge University is a leading commentator in this field. I am delighted to report that Michael is on our advisory panel but who needs friends like this!!

  "My observation is that they (climate change implications for the way economic regulation is conducted) are not receiving sufficient focus within Ofgem at the moment. My view is that Ofgem can play a key role in focusing regulatory incentives on the effective internalization of environmental externalities[8]."

- **Public bodies**: We are interested in the ideas of the Parliamentary Select Committees, and it also gives us the opportunity to discuss issues with public bodies closely involved in the price controls. For example does HSE have a particular view on safety tolerance levels in the future or does the MOD think that RAV'able security costs could be charged at a different level from standard WACC[7].

- **Other Regulators**: Ofgem is not too proud to listen and take on good ideas from other regulators. For example should we try to adopt more of the CAA's constructive engagement model or the Water Commissioners in Scotland, who have opted for a "4 year plus 4 year" approach to the price control cycle.

- **International**: While Stephen Littlechild rightly looks for the positive experiments around the globe (Argentina, Florida, Ohio)[4] we also need to acknowledge that retrenchment is occurring. In my speech at Oxford last week[14] I highlighted the retreat in New England from the 1990's market model. This carries with it implications for the approach to regulated networks – even though the greater focus is on the rolling back of supply and generation competition. The most obvious impact is the re-bundling process and the potential that this provides for cross subsidy between the energy chain components. In Connecticut they are in the process of allowing network companies back into generation – albeit under quite rigid rules set up by the DPUC. As yet there is no suggestion of cross subsidy in Connecticut but you don't have to look far in the USA to find evidence of it. In Illinois in 2006 the local utility Exelon, who had a rate freeze since 1995 sought a $300m rate settlement to maintain its return on equity and invest in the local network. The state regulators barely recognised the request and analysts close to the situation believed that the increase in wholesale prices was a key reason for the rejection of the network rate reward.

  As our RPI-X@20 team looks at the broad picture of network regulation they need to be cognisant of events in other jurisdictions. However our starting point is a profound philosophical and business attachment to independent, unbundled and economic/efficient spend for networks.

- **The companies themselves:** The quotes from two senior executives, below, illustrate that the industry is also interested in reviewing the current set up.

- **"We are concerned about the direction of UK energy regulation signalled by recent PCR's. As well as being by far the most complex price control framework we have seen since privatisation, we are concerned that the proposed approach is in our view suggesting a rapid movement towards a rate-based model ... albeit with lower returns than such regimes usually enjoy" - CEO Company A.**

- **"For network utilities the game has changed substantially over the last few years and I believe that we have come to the end of the road on the "easy" opex savings. On climate change the key question is whether network utility regulation should be used as a wider tool – through network pricing or particular access priorities – to secure the climate change agenda" – MD Company B.**

At a more localised level the 'RPI-X@20' review provides a golden opportunity for Ofgem to revisit some of the mechanics of the price controls. In effect we are giving the price control car an MOT! Some areas that could benefit from this I would suggest are:

- Consistency on financial indicators: gearing ratios, credit ratios, and merger tax rules all fall into this category.

  Should Ofgem react to the challenge from one CEO "whilst Ofgem's 'merger premium' may be a factor in the utilities decision making it is clearly bizarre that well-capitalised strategic players with opportunities for synergies feel that they cannot compete with infrastructure funds".

- Deferred tax: are we properly assessing the scale of upside for companies?

- Costing in shadow cost of carbon: are we doing this holistically?

- Does the final Competition Commission appeal still appear reasonable?[9]

- Cliff edge depreciation: are we creating a problem for future regulators in applying accelerated depreciation?

Any of these "MOT items" can be examined in depth but tonight I want to take cliff edge depreciation as my example. In DPCR3 and DPCR4 Ofgem set a precedent to protect licensees' reserves and financial ratios by reducing the regulatory lift of post vesting assets. This protects the company from the "revenue shock" when pre-vesting assets are fully depreciated. As a consequence we determined that post-vesting assets lives be dropped from 33 years to 20 years and the difference smoothed over 15 years.

TPCR4 then followed this precedent but provided each of the three to companies with a "bespoke solution".

You can read these developments two ways – elegant regulation or a fudge factor? Either way we will need to address the consequences:

- Can we keep using this accelerated depreciation policy?

- Should the England/Scotland interconnector be included (currently not as it is subject to revenue driver?)

- Cliff edge depreciation assists the allowances of the companies and so differential treatment could be giving a double benefit.

One critical factor of the 'RPI-X@20' review that straddles both the macro analysis and the 'MOT work' is the thorny issue of risk and reward.

We need to revisit the extent to which after 20 years the companies are more comfortable with a low risk/low reward approach.

This has particular resonance in the sustainability field as we should test the appetite of potentially quite significant reward as the incentive to assist the Government to meet its 2020 targets.

5. THE RISKS OF THE REVIEW

Both the capital markets and the companies will likely fear a regulatory review if it seeks to claw-back retrospectively, if there are sudden lurches in regulatory directions, and if the rumour mill is creating instability.

Ofgem fully understands this – as does the Board. Some direct comfort should be taken from the following:

- We are insulating DPCR5 … the RPI-X@20 will report after DPCR5 is completed.
- Capital markets and companies will be represented on Ofgem's advisory panel. I have put the list of the panel in your presentation and you will see it is a distinguished list representing the law, consumers, public policy, industry, renewables and the capital markets. None of these panel members will be exposed to market sensitive information and in all likelihood the panel will not meet in the six months ahead of the reporting date of summer 2010 to ensure this.
- Most actions taken by Ofgem are appealable.
- Consultation is in our DNA … indeed this project will only be successful if we have good engagement. An Industry Workshop is already arranged for mid-November and an academic conference is being planned.
- If the review team recommends changes these will not be taken lightly (and not until after consultation) … at a quarter of the consumers electricity bill, and for an industry worth by 2010 around £40 billion, we will not be treating this as a chance to experiment.

The bottom line is that Ofgem is committed to a careful approach. As Stephen Littlechild commented in 1990: '**I recognise the importance of stability in the regime and would require a convincing case to be made before proposing radical change'**.[15] I would reinforce this message with an observation that '**capital market trust is hard won and easy lost'**, and generally consumers are net gainers from a trusted regime.

My final comment though must bring me back to positioning the "RPI-X@20" project against the current backcloth of global financial markets in crisis. I hope this speech has reassured you of three issues in this regard:

- We have procedures in place to protect consumers in the event of a network getting into financial difficulties.

- Ofgem takes very seriously its need to both insist on strict financial parameters for the companies and we monitor this – both directly and through our City unit.

- The "RPI-X@20" project will be looking at a range of financial issues.

However we do accept that there are lessons to be learned from events elsewhere. Indeed the relationship of FSA, Bank of England and HM Treasury could be likened to that of Ofgem, National Grid and DBERR. Consequently the message I want to leave you with tonight is that we will not wait until "RPI-X@20" if there are aspects of financing that need immediate attention. Changes may occur therefore through the vehicle of the 2009 DPCR5 or, if necessary and less likely, on an ad hoc basis. In particular we are keen that all market participants understand what the rules are and to that end Hannah Nixon (who is in control of the RPI-X@20 project) is preparing the necessary documentation for publication. We plan to stress test these rules in 2009 – almost certainly using external help. Your views on this area in particularly or any aspects of my speech are most welcome.

KEY REFERENCE POINTS

1. Dr Michael Pollitt, Cambridge University Judge Business School. "Regulatory electricity networks in an age of rising real prices" 27 September 2007. Presentation to EPRG/CEEPR London Conference.

2. Alistair Buchanan, CEO Ofgem. "Facing up to the better regulation challenge". 29th November 2005. Speech to Institute of Economic Affairs.

3. Stephen Littlechild, Cambridge University. "The bird in hand: stipulated settlements in Florida electricity regulation". 12th December 2006 and "Negotiated settlements: a role for American practice in UK policy". 23rd February 2007, Hertford College, Oxford.

4. J Doucet and Stephen Littlechild "Negotiated settlements and the National Energy Board in Canada". 23rd November 2006. Cambridge Energy Policy Research Seminar.

5. Derek Holt, Oxera. "Financing investment – can regulation adapt to new challenges? 1st March 2005. Oxera publications and conference.

6. Dieter Helm, Oxford University. "Tradeable RAB's and the split cost of capital". 2nd January 2008. Helm Associates publications.

7. Smithers Report (Stephen Wright, Robin Mason, Steve Satchell, Kenjior Hori and Meltem Baskaya). "Report on cost of capital". 1st September 2006.

8. Michael Grubb, Tooray Jamasb, Michael Pollitt. "A low carbon electricity sector for the UK"? 2007.

9. Peter Freeman, Chair Competition Commission. "Regulation and Competition – Chalk and Cheese"? CRI Speech University of Bath. 7th September 2006.

10. Deutsche Bank, 3 December 2007: "Sell your UK electricity RAB's".

11. Martin Wolf, Financial Times – 24 June 2008.

12. Phil Burns, Frontier Economics, article in 11 July 2008 Utility Week.

13. John Reynolds, Reynolds Partners, article in Observer newspaper 11 May 2008 and various supporting articles.

14. Alistair Buchanan, Ofgem, speech to British Economist Association, Oxford University, 25 September 2008.

15. Stephen Littlechild, regulator's letter of comfort to 12 REC's Prospectus 1990.

GLOSSARY

DPCR: Electricity Distribution Price Control Review.

TPCR: Transmission Price Control Review.

GDPCR: Gas Distribution Price Control Review.

GDN: Gas Distribution Network Company.

DNO: Electricity Distribution Network Company.

TO: Transmission Asset Owner Company.

NAO: National Audit Office.

IFI: Innovative Funding Incentive.

RPZ: Registered Power Zones.

TIRG: Transmission Investment for Renewables Generation.

WACC: Weighted Average Cost of Capital.

IQI: Information Quality Incentive.

RAV/RAB: Regulated Asset Value/Base.