Strawmen for RPI – X@20

Prepared for Energy Networks Association

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1 Introduction

As part of its RPI – X@20 project, Ofgem held a workshop on January 22nd to consider four 'strawmen' for the reform of energy network regulation in Great Britain. These were proposed by CEPA and designed to stimulate debate about the different directions in which energy network regulation could develop.[1] In the event, the proposed strawmen were generally thought by ENA members to be somewhat unsatisfactory, albeit that it was accepted that they are strawmen, rather than fully worked-out models. This note was commissioned to suggest ways in which the strawmen should therefore be modified.

The note is structured as follows.

– Section 2 suggests criteria which the strawmen should meet at this stage of the RPI – X@20 project.

– Section 3 reviews the CEPA strawmen against these criteria.

– Section 4 suggests alternative strawmen.

– Section 5 summarises.

2 Criteria for selection of strawmen

The purpose of the strawmen is to stimulate debate, not least by forcing participants in the debate to articulate why they do *not* want particular changes. (At least at the start of a debate, participants tend to feel much more strongly about what they do not want than about

[1] CEPA (2009), Presentation to Ofgem RPI – X@20 'Strawmen Workshop', January, 22nd.

what they do want.) At the start of a debate, therefore, strawmen may work best when they are kept relatively stark and provocative, and relatively devoid of the sort of nuance and detail which will be required later in the process.

At the same time, strawmen have to:

– 'cover the bases'—ie, cover all the 'big' alternatives that need to be considered (many of the more detailed, 'good housekeeping'/'regulatory MOT' objectives of RPI – X@20 could be achieved more or less independently of the chosen regulatory model);

– achieve this with the minimum possible number of archetypes, again to avoid getting dragged into excessive detail at an early stage in the project.

In trying to determine the minimum number of strawmen which will cover the big issues, those big issues have to be identified. Sources include:

– the presentations by Alistair Buchanan, Ofgem's Chief Executive, on the RPI – X@20 project;[2]

– subsequent announcements and presentations on RPI – X@20 by Ofgem;[3]

– developments in other areas of Ofgem's work which are obviously interactive with RPI – X@20—for example, the current Electricity Distribution Price Control Review (DPCR5) and the Transmission Access Review (TAR);[4]

– speeches by politicians, like the speech given by Ed Miliband in December 2008;[5]

– the writings of academic commentators on the future of energy network regulation, such as Dieter Helm, Stephen Littlechild and Michael Pollitt.[6]

A review of these sources throws up at least the following big (and, in many cases, overlapping) themes.

– The central importance of network investment and how it is determined and remunerated against the background of government climate change and energy security of supply objectives, as well as customer requirements.

– The respective roles of customers, government, independent networks and the incumbent networks themselves in determining what energy networks do, not least in relation to investment, and what they are paid for so doing.

– The closely related questions as to:

  – what type of businesses energy networks should be, not least in respect of the extent to which networks should be: (a) relatively passive responders to financial commitments from network users; (b) more active anticipators of future customer

[2] Buchanan, A. (2008), 'Ofgem's "RPI at 20" Project', SBGI presentation, March 6th. Buchanan, A. (2008), 'Is RPI – X Still Fit for Purpose', Beesley Lecture, October 2nd.

[3] See, for example, Ofgem (2008), 'Update on RPI – X@20, October 2nd; Ofgem (2008), presentation at RPI – X@20 stakeholder workshop, November 7th.

[4] Notably: Ofgem (2008), 'Electricity Distribution Price Control Review Policy Paper', December 5th; Ofgem (2008), 'Transmission Access Review: Initial Consultation on Enhanced Transmission Investment Incentives', December 19th.

[5] For example, Miliband, E. (2008), 'The Rise and Fall and Rise Again of a Department of Energy', lecture at Imperial College, December 9th.

[6] For example, Helm, D. (2008), 'Credible Energy Policy: Meeting the Challenges of Security of Supply and Climate Change, Policy Exchange'; Pollit, M. (2008), 'The Future of Electricity (and Gas) Regulation', EPRG Working Paper; Littlechild, S. (2005), 'Beyond Regulation', IEA/LBS Beesley Lectures on Regulation series XV, October 4th.

requirements; or (c) shapers of customer behaviour through network investment determined by networks themselves or by some mixture of government/government agency and networks;

  - what degree of risk networks should be exposed to in respect of network investment and, following on from this, what ex ante rate of return Ofgem needs to assume when setting price controls.

- The scope/coverage of the monopoly activities of regulated networks and the extent of competition, both *for* networks and *between* networks.

- The nature, and potentially increased sophistication, of regulatory incentives on regulated networks.

In addition to covering the above issues and highlighting the main different approaches to the big issues, there needs to be one strawman representing 'business as usual'. At all the initial presentations about RPI – X@20, Ofgem has emphasised that no decision has been taken that *radical* change is in fact required—and that one of the main questions to be answered by the RPI – X@20 project is whether indeed such change is required. Such a business-as-usual option would not imply 'no change'—what it would represent is the continued incremental evolution of the regulatory regime. As Alistair Buchanan put it in his March 2008 presentation, 'RPI-X has been flexible enough to evolve'—not least through new incentives to drive particular aspects of network investment—and there needs to be a strawman to represent that continued incremental flexibility.

3 The CEPA strawmen

The strawmen presented by CEPA at the workshop on January 22nd are as follows.

- **Improved role for consumers (hereafter, 'CEPA 1')**. This covers a spectrum of potential changes in how price reviews might be conducted, including building on the 'constructive engagement' process used by the CAA in relation to the London Airports.

- **Increased role for competition (CEPA 2)**. This strawman is about competition *between* networks, as opposed to competition *for* networks (as represented by the current IDNO model). In this model, networks would compete with each other, whether on the basis of duplicated assets or on the basis of buying assets or buying capacity on those assets from owners of other networks, including the possibility of competing to provide an end-to-end network service.

- **Utility bond and contracting out (CEPA 3)**. This involves the incumbent network owning the existing network and all OPEX. *All* CAPEX (whether asset replacement or network enhancement) would be contracted out.

- **Flexible incentivised (CEPA 4)**. This strawman is about having ten-year price control periods, and the changes that would need to be made to price controls and price review processes to accommodate this—notably, greater use of revenue adjustment mechanisms and caps and collars on achieved rates of return.

Issues with these strawmen partly relate to issues within particular strawmen. For example, CEPA 3's proposed division between 'core' DNO activities (the existing network and *all* OPEX) and the compulsorily unbundled activities (*all* CAPEX) would look to fly in the face of one of Ofgem's key objectives in DPCR5—to reduce regulatory distortions of companies' choice between OPEX and CAPEX solutions.

However, the main problem with the proposed strawmen is that they do not seem to meet one of the main criteria suggested in section 2 above—that the strawmen should cover the bases, and should deal with all the big alternatives envisaged for future network regulation. Thus, the CEPA strawmen do deal with the issue of giving customers an enhanced role in regulation (CEPA 1) and do also (CEPA 2) cover the issue of increased competition between networks (while increased competition *for* networks is, at least to some extent, covered in CEPA 3). However, there are also major gaps in the strawmen's coverage of the big issues. In particular:

– the separate options of competition *between* networks and competition *for* networks is poorly articulated, not least because the second of these is posed only in an implicit form;

– although one section of academic opinion, that which favours more competition and a greater role for customers, is catered for (via CEPA 1 and CEPA 2), the reverse position—expanded scope for the monopoly regulated businesses and investment driven by government, rather than by customers—is not;

– there is no real option to cater for the counterfactual of no radical change, an important omission in light of repeated Ofgem statements that it has not pre-judged the question of the need for such change.

4 Proposed strawmen

4.1 Underlying thinking

In light of the criteria set out in section 2 and the comments on the CEPA strawmen in section 3, the following is suggested.

– In line with CEPA, there needs to be one strawman incorporating an enhanced role for consumers in the regulatory process.

– There needs to be at least one strawman dealing with an enhanced role for competition. There is a question as to whether more scope for competition *for* the market (the sort of contracting out voluntarily practised by Welsh Water and ENW, the current regime for IDNOs and IGTs and, potentially, more compulsory contracting out, as embodied in CEPA 3) needs to be dealt with in a different strawman from the sort of competition *within* the network market represented by CEPA 2. On balance, there would seem to be sufficient differences between the two ideas to justify separate strawmen. However, at this stage in the process, there does not seem much to be gained, in the compulsory contracting-out model, by pre-specifying the particular division between activities retained by the DNO and those which are contracted out.

– Combining the above two bullet points would imply three strawmen, which would collectively represent the thinking on regulatory reform embodied in the writings of, for example, Stephen Littlechild and Michael Pollitt.

– There needs to be one strawman which heads to the opposite end of the regulatory reform spectrum from Littlechild–Pollitt. In this strawman, decision-making about network development would be driven not by consumers but by broader government energy policy, as filtered through Ofgem or some other broader energy agency. In this strawman, not only would decision-making be driven from the centre but also some activities which are currently being provided competitively (or are planned to be provided competitively) would be taken back inside the incumbent DNO or TO—activities such as metering, connections and independent networks, including offshore transmission—

albeit that the monopoly networks might choose to contract out the implementation of some or all of these activities.

– Finally, there needs to be a strawman which caters for the option of no radical change—that Ofgem continues to develop the regulatory regime incrementally, refining incentives on the networks (as is envisaged in, for example, DPCR5 and the current Ofgem thinking about enhanced transmission incentives).

On the basis of the above, the five strawmen could be labelled as follows:

– Customers

– Competitive networks

– Compulsory contracting out

– Centralism

– Evolution

Each is described below.

4.2 Strawman 1: Customers

This strawman would be as per CEPA 1.

– The underlying philosophy is that greater involvement of customers in negotiating regulatory deals will lead to deals which are better informed, more innovative and more attuned to customers' requirements.

– By the same token, such deals may be less well attuned to government policy objectives, especially where those objectives have a longer time horizon than is the case for most consumers.

– The real-world GB model which most informed CEPA 1 is the constructive engagement process which has been used at the price-regulated BAA London airports (Heathrow, Gatwick and Stansted). CEPA recognised that this model would appear more easily transposable to energy transmission than to energy distribution—the latter being more likely to require the sort of mandated representatives involved in some US rate review processes. It is not obvious what advantages such representatives would have over Ofgem itself.

– It is not clear that the problems and complexities that emerged in the application of 'constructive engagement' to the regulation of airports have been fully appreciated by Ofgem and CEPA. These problems included the disparity in bargaining resources between the parties, the lack of visibility of the implications of the negotiations for user charges, and the absence of financial commitment to requests for CAPEX. Regulators were also unable to test systematically whether any agreement would have been an optimal outcome for users.

It should be noted that no process of constructive engagement could be allowed to override the statutory obligations of network operators.

4.3 Strawman 2: Competitive networks

This strawman would be broadly as per CEPA 2.

– The focus would be on competition *between* networks, with the model being local-loop unbundling in telecoms. In other words, there would be requirements for existing networks to sell capacity to other network operators on regulated terms, allowing independent networks to offer a full end-to-end distribution service.

– Although not explicit in CEPA 2, a level playing field would also presumably place similar obligations to sell capacity on the independent networks themselves, at least (and by analogy with the regulatory regime for local-loop unbundling) if the independent network in question was deemed to have significant market power in the relevant market—a new town, for example.

– One major issue of going down this route would be how to secure appropriately cost-reflective charges, given the extent to which network RAVs fall below long-run incremental costs, not least as a result of the accelerated regulatory depreciation which has been a feature of electricity distribution and transmission regulation since the mid-1990s (and which was enhanced in DPCR4 and TPCR4). The specific problem is that, ex ante, price controls tie total electricity network revenues to a rate of return on RAV, while avoidance of inefficient bypass could require charges to be based on, for example, the relevant long-run incremental costs, likely to be well above what would be implied by regulatory values of existing assets.

4.4 Strawman 3: Compulsory contracting out

At present, there is a variety of business models across the UK energy network sector, not least with respect to whether the companies are stand-alone or part of energy conglomerates and with respect to the extent to which network services are provided in-house or contracted out. Northern Gas Networks and Electricity North West, among energy networks, and Welsh Water, among water companies, are examples of *comprehensive* contracting out. Many more, if not all, of the energy networks contract out the bulk of work on major capital projects.

CEPA 3 would, however, entail a departure from this existing model in the following two respects.

– It would make comprehensive contracting out compulsory.

– It would require a particular split between the core DNO business (existing network and all OPEX) and the contracted-out activities (all CAPEX).

Each of these features appears difficult to justify on the basis of regulatory philosophy or evidence.

– With respect to philosophy, it has been a core part of the sort of benchmark regulation practised by Ofgem in respect of distribution companies that companies should be incentivised to be more efficient, including being incentivised to adopt the optimal split between activities which are undertaken in-house and those which are contracted out. To mandate a particular split between in-house and outsourced activities would seem to represent a significant, and not obviously justifiable, narrowing of the range of incentives to which energy network companies would be exposed.

– In terms of performance, the evidence on the efficiency of comprehensive contracting out is, at best, mixed. On the one hand, Northern Gas Networks, which contracts out much of its operations, was judged by Ofgem in GDPCR to be a relatively efficient network.[7] On the other hand, a recent Ofwat report on water company relative efficiency, suggests that, for 2007/08, Welsh Water ranked as 15th most efficient (out of 21) among

[7] Ofgem (2007), 'Gas Distribution Price Control Review: Final Proposals', December, Chapter 3.

GB providers of water services, and eighth most efficient (out of ten) among GB providers of sewerage services.[8] In addition, both Network Rail and London Underground have substantially reversed previously mandated contracting out.

On the basis of such concerns, it might be argued that, if any of the proposed strawmen were to be omitted at an early stage, it would be this one. However, if it is to be retained, it would seem sensible to drop the prescription of a particular boundary between the activities of the network company and those of service providers, and leave this to be one of the questions to be worked on in fleshing out this strawman.

Thus, the proposed Strawman 3 would initially entail a compulsory comprehensive contracting out of services, but without precise prior specification of which services would need to be outsourced.

4.5 Strawman 4: Centralism

Strawmen 1–3 focus on different aspects of a move towards more decentralised decision-making about networks, with:

– more responsibility being taken by customers and/or competitive networks and/or non-network providers of network services;

– less responsibility being taken by incumbent networks and, indeed, Ofgem itself, let alone any direct role for government.

However, as noted in section 2, such models would by themselves fail to take account of the case for going in the reverse direction—expanding the role of both the incumbent networks and that of government/regulator. Strawman 4 should therefore embody this thinking which has been articulated by Dieter Helm in his recent Policy Exchange publication.[9]

Based on the Helm vision, which is partly justified by according paramount importance to delivering the government's energy policy, Strawman 4 would involve, in particular:

– government and/or a government agency taking a direct role in prescribing, at least at some level, how networks should be developed;

– expanding the scope of the regulated energy networks, with those networks taking (in some cases, re-taking) responsibility for metering, connections and independent energy networks, including offshore networks;

– network CAPEX, including a programme for roll-out of smart meters, agreed on a rolling long-term basis by government, regulator and the network companies themselves—all within the framework of the government's energy policy and, in particular, its policies for de-carbonisation of the energy sector and security of energy supply.

A final point on Strawman 4 would be that the case for this strawman would look to be somewhat stronger for electricity networks than for gas networks. For example, Dieter Helm notes that his approach 'is one which has a much more significant element of planning than the competitive approach which Ofgem has favoured. But there is really no option here if the government wants to achieve the renewable target under the EU 2020 framework.'

[8] Ofwat (2009), 'RD 02/09, Relative Efficiency Assessment 2007/08', January 29th.

[9] Helm, D. (2008), op. cit., pp. 41–45.

4.6 Strawman 5: Evolution

As noted in section 2, one of the bases which the strawmen need to cover is the option of *not* radically changing the framework of energy network regulation. As also noted, Alistair Buchanan himself has commented on the flexibility of the regime, to date, and its capacity to evolve to deal with new problems.

This option is partly covered by CEPA 4, but CEPA 4 only really focuses on lengthening the price control period to ten years. This is only one of a number of ways in which RPI – X could evolve and, indeed, is evolving. Examples of the sort of evolution which are currently in train would include:

– as part of the TAR project, the development of enhanced incentives for electricity transmission investment;

– as part of DPCR5, refinement of the nature of the 'deal' embodied in price controls and, in particular, refinement of the 'outputs' which energy networks are committing to produce in return for the regulated revenue being proposed.

Each of these developments is addressing important holes in the existing regulatory regime.

– Ofgem's preference for customer-led network development will, by itself, tend to produce tardy network development. This is not least because a network user—a putative generator, for example—will not commit financially to network enhancement until it has itself got to financial close. Unless, therefore, the network undertakes a certain amount of the relevant work, including obtaining planning consents, *in advance* of user commitment, then network development may be delayed by generator and network planning consent processes being sequential, rather than running in parallel. Ofgem's latest proposals seek to address this problem by giving networks financial incentives to anticipate financial commitments from network users.[10]

– Ofgem has typically interpreted a company's acceptance of a price control as a commitment by the company to meet its licence obligations, including the obligation to develop an efficient network, for the revenue on offer. However, under current arrangements, Ofgem cannot monitor a company's year-by-year compliance with its obligations, particularly in relation to asset replacement. Its proposals to develop more sophisticated measures of asset condition and network risk are designed to address this hole in current arrangements.[11]

Strawman 5 therefore needs to flesh out ways in which the regulatory regime could evolve to address the identified problems with the current regime. In particular, this option might well be focused on the role of increasingly sophisticated incentives on networks to achieve the objectives which would be achieved by, for example, customers in Strawman 1, competition between networks in Strawman 2 and central direction in Strawman 4.

[10] Ofgem (2008), 'Transmission Access Review: Initial Consultation on Enhanced Transmission Investment Incentives', December.
[11] Ofgem (2008), 'Electricity Distribution Price Control Review', Policy Paper, December 5th.

5 In sum

In sum, five strawmen are proposed, which would seem to embrace the big issues which have thus far surfaced in the debate about reforming energy network regulation.

– Two of these (Strawmen 1 and 2) are closely based on CEPA's original suggestions in respect of an enhanced role for customers and inter-network competition respectively.

– One (Strawman 3) is a modified version of CEPA's proposal for compulsory comprehensive contracting out of network services.

– The other two fill two important gaps in the issues covered by CEPA.

  – Strawman 4 covers the option to move to a more centralist model of network decision-making, not least to better achieve broader government energy policy objectives.

  – Strawman 5 makes explicit the option to continue to evolve the existing regulatory regime, not least through increasingly sophisticated financial incentives on networks to deliver required outputs.

Finally, and at the risk of stating the obvious:

– any eventual outcome for RPI – X@20 may well use elements from one or more of the above (or other) strawmen;

– there is no necessary reason why what eventually looks most suitable for one type of network (eg, gas transmission) should also be appropriate for another (eg, electricity distribution).