

PHIL BURNS AND MIKE HUGGINS- WRITTEN EVIDENCE (ONZ0004)

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SUMMARY

- i. Since the privatisation of the energy networks in the 1980s and 1990s, there has been a continued emphasis on incentive based regulation as the most effective way to protect customers' interests. The success of this sustained approach has been borne out by clear evidence which suggests that the productivity of the energy networks has outpaced that of the wider economy for the past 30 years. This performance has brought forth significant benefits for customers in the form of lower network charges and improved quality of service.
- ii. At this current round of price controls, Ofgem is proposing radical modifications to this approach: it is significantly reducing the incentive power of the arrangements and simultaneously increasing the level of regulatory micro-management of operational and investment decisions. Our view, which derives from the extensive theory and evidence of regulation over the past 40 years, is that this will result in increased upward pressure on customers' bills, on top of the cost pressures associated with meeting net zero.
- iii. What is equally concerning is that Ofgem's significant policy shift has not been adequately scrutinised from a public policy perspective. There is a wide margin of discretion available to the regulator, which has historically been used by Ofgem as an important instrument to execute incentive based regulation effectively, subject to the discipline of narrow and limited rights of appeal by the companies.
- iv. This margin of discretion is now being used to execute a fundamental shift in regulatory policy, and there is no check and balance from a public policy perspective. This is a significant gap in the accountability framework and one that should be filled. The only public body that has the expertise

¹ We are Directors of Frontier Economics and have worked on most of the UK energy price control reviews and key regulatory debates since the early 1990s, in a research or advisory capacity, for both regulators and regulated companies. We have also advised many regulators and regulated companies outside the UK. We have published widely, and we also teach the "Regulation and Competition Policy" module of the Masters programme in at the Department of Economics, QMC, University of London. The views expressed are our own personal views that have been shaped by the work we have done over the past 30 years. We are submitting this note because we are concerned about the direction Ofgem's regulatory approach is taking, which also reveals the weakness of the checks and balances on Ofgem. The committee's inquiry is therefore an important opportunity to address these issues.

and experience to act as a check and balance in these situations is the Competition and Markets Authority (CMA), and we suggest some options that could give it a more enhanced role in the event a regulator chooses to significantly change the economic effect of the regulatory regime.

Introduction

1. This submission will focus on Ofgem's current approach to regulating monopoly networks and whether it is likely to deliver good outcomes for customers over the decades ahead to 2050. Consequently, this submission is concerned primarily with questions 2, 5, 7 and 8 in the call for evidence.

Established custom and practice

2. The regulation of the gas and electricity networks has evolved considerably since the early days of RPI-X price controls – the system of regulation that was introduced immediately after privatisation. Importantly though, the two cornerstones of regulatory policy have not changed over those years, and indeed have been reinforced as the system of regulation has evolved:
 - Applying a clear incentive-based system to stimulate significant dynamic efficiency improvements; and
 - Maintaining investor confidence in order to keep the cost of capital low (which also supports a credible incentive-based system).
3. In simple terms, incentive based regulation requires that every 5 years the regulator sets clear targets for the outputs that the companies should deliver to customers, and a price ceiling (often expressed in terms of CPI-X) that can be reasonably expected to generate sufficient revenues to cover the costs of providing those outputs. There are several other important ingredients, of which the most important in this context is: the regulator should not become heavily involved in the question of “how” the companies should deliver those outputs. This should be left to the companies to work out for themselves the most efficient way of meeting their obligations - with strong financial incentives to encourage them to do so.
4. Customers have benefitted from this arrangement in two ways: first, they receive 100% of the efficiency performance of the companies assumed by the regulator when setting the price control; and second, to the extent that the companies are able to meet their obligations more efficiently than the regulator assumed, customers receive around 50% of the benefit of that enhanced performance.
5. The regulatory system therefore carefully balances the distributional settlement between the companies and customer with the maintenance of sharp incentives on the companies to strive to continually improve performance.

6. The results have been remarkable. As Jamasb and Pollitt² concluded in the context of electricity distribution, for example: “the British network regulation model has successfully: substantially reduced distribution access charges, maintained and improved quality of service, and ensured sufficient investments.” More recent research is even more striking: it confirms that the productivity performance of the energy network sectors has outperformed the rest of the economy by around 1% per year over the past 30 years³. This outcome would have been unimaginable 30 years ago, when the best that could be hoped for was that regulation could “hold the fort until competition arrives”⁴. The beneficiaries of this productivity performance have been both the companies (and their investors) and customers, who have enjoyed real reductions in prices and enhanced service levels since privatisation.
7. It is important to stress that these outcomes have not arisen by chance: it is by now well accepted in the economics literature that higher-powered incentive regimes stimulate much greater efficiency and productivity performance than a low-powered regime⁵; and moreover, there is now ample empirical evidence to suggest that this is reflected in the actual relative performance of utilities, either before and after a regime change, or across different types of regimes⁶.
8. Precisely because of this broad-based consensus, the benefits of incentive based regulation have been reaffirmed many times since the 1990s, and several times over the past decade by the UK government. In 2011, the Government reaffirmed the principles and commitments for effective economic regulation and emphasised the importance of a stable framework for the

² Jamasb, T., & Pollitt, M. (2007), Incentive regulation of electricity distribution networks: Lessons of experience from Britain. *Energy Policy*, 35(12), 6163-6187;

³ Pollitt et al <https://www.ofgem.gov.uk/ofgem-publications/146010>

⁴ Report to the Secretary of State for Industry, ‘Regulation of British Telecommunications’ Profitability’ by Stephen Littlechild, February 1983, para 4.11.

⁵ See, for example: Armstrong, M., Cowan, S., & Vickers, J. (1994). *Regulatory reform: economic analysis and British experience* (Vol. 20). MIT press; Joskow, P. L., & Schmalensee, R. (1988). *Markets for power: an analysis of electrical utility deregulation*. MIT Press Books; Laffont, J. J., & Tirole, J. (1993). *A theory of incentives in procurement and regulation*. MIT press; Vickers, J. (1997). *Regulation, competition, and the structure of prices*. *Oxford Review of Economic Policy*, 13(1), 15-26; Vickers, J., & Yarrow, G. K. (1988). *Privatization: An economic analysis* (Vol. 18). MIT press. Weyman-Jones, T. G. (2009). *Incentive regulation of energy networks*. *International Handbook on the Economics of Energy*.

⁶ See, for example: Estache, A., Coelli, T., Perelman, S., & Trujillo, L. (2003). *A Primer on Efficiency Measurement for Utilities and Transport Regulators*, Washington, The World Bank; Jamasb, T., & Pollitt, M. (2000). *Benchmarking and regulation: international electricity experience*. *Utilities policy*, 9(3), 107-130; Jamasb, T., & Pollitt, M. (2003), *International benchmarking and regulation: an application to European electricity distribution utilities*. *Energy policy*, 31(15), 1609-1622; Saal David, David Parker and T.G. Weyman Jones, (2007) *Determining the contribution of technical, efficiency and scale change to productivity growth in the privatized English and Welsh water and sewerage industry: 1985-2000*. *Journal of Productivity Analysis*, 28, 127-39; Weyman Jones, T. G. (2003). *Yardstick Competition and Efficiency Benchmarking in Electricity Distribution*. In Lester Hunt (Ed.), *Energy in a Competitive Market: Essays in Honour of Colin Robinson* (pp. 35-60). Edward Elgar.

regulation of the network businesses that embraced clear and robust incentives⁷. Only a decade ago Ofgem itself made clear that transparent, up-front incentives were a key pillar of the “RIIO” model when it was introduced.⁸ The CMA too has recognised the value and importance of evaluating the effect of regulatory decisions on incentives for outperformance. For example, in its PR19 decision the CMA stated that, “[i]ncentives are part of normal regulation and operational outperformance is a desirable outcome. If companies can outperform, this delivers benefits to customers both from the actual improvements and from Ofwat being able to use the evidence in its comparisons in future periods.”⁹

Ofgem’s current approach to regulating the networks, and its likely effects

9. At the current round of price controls (the so-called RIIO-2 round), Ofgem is making several important changes to the detailed calibration of the regime that amount, in their totality, to a significant reduction in the incentive power of the regulatory arrangements, and an increase in the extent to which the regulator will impose its own judgement on the detailed business decisions of the companies.
10. Since this shift is executed through many changes to the detailed components of the regime, it is beyond the allowable word count of this submission to even describe them all, let alone provide a detailed evaluation of their economic effect. However, the most significant are:
 - **Reducing the incentive rates by around a third.** This will not only reduce the payoffs that companies may earn through any enhanced performance not already baked into the cost targets; it will also significantly reduce the pain that the companies will experience if they underperform. Since sharp incentives have been a driving force for productivity performance and lower prices for customers, the dulling of these incentives is a significant cause for concern.
 - **Introducing additional *ad hoc* measures that penalise companies for their past performance,** which can be expected to be a further discouragement for productivity improvements.

⁷ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/31623/11-795-principles-for-economic-regulation.pdf

⁸ See e.g. GEMA (October 2010) RPI-X@20 Decision Document, <https://www.ofgem.gov.uk/ofgem-publications/51870/decision-docpdf>.

⁹ CMA (March 2021) PR19 final report, https://assets.publishing.service.gov.uk/media/60702370e90e076f5589bb8f/Final_Report_---_web_version_-_CMA.pdf, para 9.1334(a) [PR19_1]

- **Introducing a raft of measures to limit scope for companies to adapt their operational plans during the price control period.** Companies' decisions will be, in effect, managed much more closely by the regulator. The primary instruments being used are various Uncertainty Mechanisms and so-called Price Control Deliverables, which we illustrate using two examples.
 - One type of Uncertainty Mechanism are volume drivers, used "*to adjust allowances in line with actual volumes where the volume of work required over the price control is uncertain (but where the cost of each unit is stable)*".¹⁰ Such a true up removes an important incentive that would otherwise encourage the networks to minimise the inputs required to deliver the outcomes for customers. Under Ofgem's new arrangements, companies will not benefit from reducing the volume of work undertaken (the inputs), and may instead choose rationally to avoid the cost of searching for better and more efficient ways to deliver the outputs to customers.
 - For evaluative Price Control Deliverables, Ofgem agrees with the networks a detailed specification of what must be delivered for the specified cost allowance at the time the price control is set. Ofgem would then conduct an *ex post* review of whether the required outputs have indeed been delivered along with how this has been delivered and what it cost.¹¹ If Ofgem decides that the output has been fully delivered, but the network has used a different approach that has allowed it to outperform the allowance set at the price control, then it is necessary for the company to persuade Ofgem that this outperformance is "*attributable to efficiencies and/or innovation*", otherwise Ofgem may clawback the outperformance. This exposes the networks to arbitrary financial risk associated with good performance, and so increases the risk that they will simply "stick to plan", even when the plan is less cost-effective than the alternatives that might be available in real time.

11. In diminishing both the ability of the companies to financially outperform their targets (by holding them to their business plans, even if there are better ways of delivering the outputs); and dampening the incentive to do so anyway (through the reduced financial payoffs for outperformance), it is worth asking

¹⁰ Ofgem RII0-2 Final Determination, Core Document, paragraph 7.2.

¹¹ See PCD Reporting Requirements and Methodology, https://www.ofgem.gov.uk/sites/default/files/docs/2020/12/draft_pcd_reporting_methodology_document.pdf. In particular Chapters 4 and 5.

the question: where does this lost performance go? The answer can be found in Sir John Hicks' timeless maxim: "the best of all monopoly profits is a quiet life". Ofgem's policy shift ignores the fact that if high powered incentives did not stimulate and reveal outperformance, then the monopoly profits (or rents) would otherwise simply be enjoyed by the insiders in a closed system, in the form of inefficiency and gold-plating, accumulating over time, and paid for wholly by customers.

12. In contrast, under a higher-powered system of regulation, those insider rents are monetised as financial profits, which are visible and can be shared with customers. The experience of the pre and post privatisation periods in the UK suggests that for all the political inconvenience of higher profits resulting from outperformance of regulatory targets, customers have been better off in this system than in the low-powered system that preceded it.
13. Consequently, while taking this route may mitigate adverse consumer and wider public and political pressure on Ofgem associated with high utility profits, the effect on customers will ultimately be highly prejudicial, as we now discuss.

Why this matters for customers

14. Between now and 2050, the energy networks will play a critical role in enabling the UK's transition to net zero. The task facing the sector is daunting:
 - The transmission grids will need to develop networks capable of taking inflows from a quadrupling of offshore wind (to 40 GW) by 2030 alone, with material consequences for the pattern of daily and seasonal power flows and increased intermittency.
 - Electricity distribution networks will need to deal with the unprecedented deployment of microscale low carbon generation throughout their grids, plus utility-scale renewable generation in places where large inflows have never previously been catered for, all while supporting the national take up of electric vehicles and heat pumps. This will require huge reinforcement, the creation of numerous local real time markets that will need to be nationally integrated, and the widespread digitisation of networks to support real time optimisation of all connected assets.
 - Gas networks will need to manage the decline in the use of natural gas, with the potential need for them to evolve into hydrogen networks over time.
15. The sheer scale of these challenges is huge, and there continues to be considerable uncertainty about the best way for networks

to operate and develop to meet these challenges. Whilst most of the pathways to net zero are currently estimated to cost the networks in the order of £417-£441bn¹², it is by no means clear which pathway will emerge as the eventual route to net zero. Networks will need to manage that significant uncertainty in order that they can enable a wide range of future scenarios and technologies, whilst keeping the investment costs as efficient as possible. It is a highly complex network planning problem that requires optimisation across the spatial characteristics of their own networks, as well as those of other networks, and over time.

16. In that context, it has almost certainly never been more important for networks to strive, to innovate, to swiftly react to new demands and technologies in order to find better and more efficient ways to enable net zero, to deliver both environmental and customer benefits.
17. Instead, under Ofgem's new approach, large swathes of the networks' plans will be locked down for the duration of the price control, with little scope for reward if they depart from them efficiently, and material risk of clawback and further penalty. With their hands tied behind their backs, networks can no longer adequately manage the uncertainty that exists. This approach carries high risks of creeping inefficiency pushing up customers' bills over the next 30 years. Even if the inefficiency cost is "only" 10%, that is still £40bn that customers will have to pay for.

Who is Ofgem accountable to for this policy shift?

18. Ofgem's new approach is being executed within the details of the calibration of the price control, that only a small group of insiders with detailed understanding of these mechanisms, and their economic effect, would ever be able to understand. As a result, this fundamental shift has escaped the public policy scrutiny that ideally it should have been subjected to.
19. Ofgem's regulatory discretion has significantly increased over the years. This allows it the freedom not just to effectively execute incentive based regulation - where discretion is a necessary and valuable part of the regulator's armoury - but also to permit it to fundamentally change the nature of the regulatory regime itself.
20. The focused system of appeals is clearly designed to work to resolve areas of dispute in the execution of a system of regulation. Indeed, the CMA is currently hearing appeals from some companies in relation to particular aspects of Ofgem's current price control proposals. However, the appeal system is

¹² *Analysing the costs of our Future Energy Scenarios*, National Grid ESO, December 2020

almost certainly incapable of enabling a full and thorough public policy evaluation of whether the regulatory system that is being implemented is indeed the right one¹³.

21. Neither is it obvious that Departmental oversight has acted as a check and balance on Ofgem's change of direction.
22. Ofgem is the monopoly provider of customer protection services in the GB energy sector. Like many monopolies that operate free of disciplining constraints, it is prone to error and strategic misdirection. The current appeals system addresses the first of those risks; but currently there is no mechanism to adequately address the second, which suggests an accountability gap.
23. This committee's inquiry is therefore a welcome opportunity to test whether and how there should be greater scrutiny of Ofgem (or indeed any other regulator) when it attempts to fundamentally alter the economic effect of the regulatory system.

Closing the accountability gap

24. The problem we have described in this submission is an economic one: whether knowingly or unknowingly, Ofgem has significantly changed the economic effect of the regulatory system. The only public body that has the expertise and experience to act as a check and balance in these situations is the CMA.
25. Several options exist that could be considered. For example, one could be to restore the previous appeals system, which enabled the CMA to take a wider public interest assessment of the regulatory proposals in the event of an appeal (this model still prevails in the water sector).
26. Another option could retain the focused appeal model but permits a class of appeals that tests whether new and novel regulatory proposals are likely to operate in the public interest. The CMA would first have to test whether the regulatory proposals pass a hurdle for significant change; and then whether that change is likely to operate in the public interest.
27. A third option does not rely on appeals and is more administrative: it would mirror the requirement that Ofgem places on the companies to produce a "well-justified business plan" to require Ofgem itself to submit a "well-justified regulatory plan" to the CMA at key milestones during a price

¹³ Interestingly, the previous appeals system required the CMA to investigate whether the price control regime as a whole operated for or against the public interest (irrespective of whether there was agreement or disagreement between the regulator and the company on particular aspects). Now however, under the current appeals regime, networks do not accept or reject Ofgem's Final Proposals as a whole, but are entitled to bring focused appeals on specific elements of Ofgem's decision.

control review. This would set out the economic intent it is seeking to achieve, and the instruments it is using to achieve that; any significant departures from historic custom and practice; how the incentive power of the regime works, and so forth. The CMA could then undertake an initial evaluation of the plan to evaluate whether the approach that Ofgem is proposing to implement raises sufficiently significant public interest questions that merit a fuller investigation.

28. Inevitably, other options could also address this issue, and this inquiry is a timely opportunity to consider these in some depth. In significantly changing the economic effect of the previously well-established regulatory system, Ofgem has exposed a gap in the accountability framework that should be addressed in order that such fundamental changes are exposed to the appropriate level of scrutiny.

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