

Regulation for the Future:

The Implications of Public Purpose

for Policy and Regulation in Utilities

Fair for the Future Project

Report

March 2021



Sustainability
first

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Foreword

The last few years have witnessed a growing debate around the purpose of business. There is an increasing recognition of the role that business can and should be playing in addressing customer, societal and environmental issues that deliver long-term value creation for businesses and their investors.

Nowhere is this more important than in the context of the utilities. Their central role in communities and societies, delivery of essential public goods, the dependency of customers on the services they provide, and the environmental consequences of their activities lend particular significance to their corporate purposes.

Regulation of the sectors in which utilities operate is a key component of this. As the Report describes, the traditional form in which regulation has been structured to date has not always been conducive to the promotion of purposeful utility companies. It has been dominated by periodic economic evaluations of the comparative performance of firms within sectors.

In these periodic reviews, utilities seek to establish the most generous settlements they can extract from regulators, and regulators in turn impose the most stringent price caps on companies that are consistent with delivery of required levels of services. The result is often antagonistic and confrontational engagements between regulators and companies, frequently requiring arbitration by third parties.

Furthermore, those price settlements are increasingly seen by companies to be in conflict with their achievement of a broader range of objectives beyond those of customer services. Environmental and social considerations do not always lend themselves to the types of measurable data that are sought of price reviews and require longer-term relationships of commitment and trust between regulators and firms than relatively short-term price reviews typically permit.

Current procedures are costly, short-term and inadequate for their task of promoting the public interest for current and future generations of customers and communities. Instead, the Report correctly identifies the need to put purpose at the heart of not just utilities but the regulatory system as well. Government and regulators need to begin by determining and specifying the purpose of regulation; what is regulation there to do and seeking to achieve, and how should regulation be best structured and managed to achieve those outcomes?

As this Report records, that starting point leads to a very different mindset about the functioning of regulation. It emphasizes the importance of structuring regulation around the long term, the relevance of 'place', and the centrality of social and environmental considerations alongside those of traditional economic regulation.

It suggests that arbitration and oversight bodies, such as the Competition and Markets Authority (CMA) and the

National Audit Office (NAO), need to embrace broader and longer-term perspectives, which include citizens as well as customers, and future as well as current generations.

Change does not need to wait on legislation. There is a great deal that regulatory bodies can do within existing frameworks to align their conduct with societal values and priorities.

They can emphasize the sustainability principles that need to underscore their policies and practices. They can set in place principles that establish how distributive justice, intergenerational equity and environmental sustainability apply to utilities, and how they relate to the strategic direction of both regulators and companies. They can set up citizens' assemblies to determine the values and priorities of communities and customers. They can appoint personnel with the skills needed to fulfil these tasks.

There is also much that government can do to promote the adoption of these principles and practices by companies and regulators through being clear about their expectations of both parties and recognizing the vital role that purposeful utilities and regulators can play in helping to deliver government policies.

Net zero and regional growth illustrate this very well. Utilities deliver many of the goods and services that are at the heart of both net zero and regional wellbeing in relation to, for example, energy, transport and communications. But they also have a key role in ensuring affordability and social inclusion of the services provided.

The delivery of this agenda of recognizing the role that utilities can make in supporting distributive justice, intergenerational equity and environmental sustainability alongside economic prosperity is an exciting next chapter in the evolution of utilities and regulation in contemporary society. This Report is an outstanding basis on which to launch that agenda. It is clear, precise, informed and above all imaginative about both the challenges and the opportunities. It sets out a powerful case for reform around a coherent and well-articulated programme on purposeful regulation.

I congratulate Sustainability First on having produced such an important document, and I commend it to everyone in business, government, regulation, the media, civil society and academia as a major contribution to our understanding of how to realize the successful, fair, inclusive and sustainable economy and society we are all seeking to achieve. It warrants careful and detailed reading by all of us.

Colin Mayer

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17 February 2021

About Sustainability First

Sustainability First is a think-tank that promotes practical, sustainable solutions to improve environmental, economic, and social wellbeing. We are a registered charity that primarily works in the public utilities, and have a long, proven track record of delivering impactful projects that help shape policy, regulation, and company behaviour in the energy and water sectors.

The Fair for the Future Project

Sustainability First's major Fair for the Future Project, of which this Report is a key part, was set up in 2018 to help public utilities better address the politics of fairness and the environment. It seeks to help companies in the energy, water and communications sectors to demonstrate corporate leadership by 'doing the right thing' and to help ensure that policy and regulatory frameworks are fit for the future and enable a more purposeful business approach. Our extensive and in-depth project research papers include: developing and embedding a sustainable licence to operate and a purposeful business approach – a how-to guide for public utilities; policy and regulatory risk and uncertainty in utilities – two exercises for resilience; sustainability metrics and utilities; and sustainability, law and regulation in public utilities. These papers can be found [here](#).

This Report

This Report draws on published work, and external discussions and workshops, throughout the Fair for the Future project. It has been written by Sustainability First Associate Martin Hurst with assistance from Research Officer Alice Cross and Associates Maxine Frerk, Fiona Smith, Judith Ward, and Zoe McLeod, and Director Sharon Darcy. We are also very grateful for the guidance we have received from Claire Milne and Chris Taylor. The Report has been edited by Conrad Steel.

It should be noted that editorial responsibility rests solely with Sustainability First.

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This Report has also benefited hugely from discussions with those sponsors, and bilaterally with Ofgem, Beis, Defra, the Chief Ombudsman, Ofwat, the Global Infrastructure Investor Association (GIIA) and external workshops on consumer/stakeholder aspects and adaptive approaches. We would also like to thank Professor Colin Mayer for his ongoing support and inspiring foreword.

Outline of this Report

Summary This section can be read as a stand-alone document. It contains a summary of our key conclusions and recommendations on the implications of public purpose utilities for regulation and policy in public utilities.

The main body of the Report provides a detailed economic analysis of the issues concerning purpose, policy and regulation in utilities.¹ We do not see this in any way as the last word and hope it will stimulate discussion and debate at a particularly important time for utilities regulation.

Chapter 1 provides a reminder of the ongoing rationale and need for economic regulation and policy intervention; explores the limitations of economic regulation and policy in terms of purpose; recaps the work Sustainability First have done on the case for public purpose in utilities and what this might mean in practice; and summarises the status quo in terms of legal and regulatory structures, building on the analysis carried out for Sustainability First by Slaughter and May.

Chapter 2 looks at the policy-regulation interface: the areas where clearer policy steers are needed to enable regulators to move towards a purposeful approach/support for purposeful businesses; and the structures for doing this, most notably duties and Strategic Policy Statements but also on occasion freestanding primary legislation. It then also considers 'softer' issues: the role of government/ministers in regulatory appointments and of ministerial statements as – either by accident or design – nudging regulatory approaches. It illustrates these issues with regard to three challenges: 1) creating a voice for the long term; 2) how to introduce the government's place agenda into the utility sectors; 3) the approach to fuel and water poverty and vulnerability.

Chapter 3 looks at what purposeful regulation might mean, and what is required of regulators to facilitate purposeful companies, under a number of headings:

- a) ethical regulation, risk-based approaches, arms-length regulation;
- b) the role for consumers and stakeholders in purposeful regulation;
- c) intergenerational fairness, and how to regulate for the long term;
- d) how fixed term price reviews can move away from one-shot games and create flexibility and support purpose without undermining the need to address the fundamental market failures associated with monopolies;
- e) the culture and governance in regulators, and which regulators require of companies.

Chapter 4 pulls out our full conclusions and recommendations.

Next steps and further information

We will develop and embed the thinking in this Report over the coming months. We will shortly publish a related Discussion Paper on stakeholder engagement and the public interest in essential services. Later this year, we will launch our new 'Sustainability Principles' project which will carry forward one of the specific recommendations in the Report. For more information about the Fair for the Future Project, our new 'Sustainability Principles' Project or Sustainability First's wider work, please do **get in touch**. We are a small charity with no core funding so if you would like to partner with us or sponsor our work, we would be delighted to hear from you.

Sustainability First's major 'Fair for the Future Project' has mapped the increasingly complex set of strategic risks and opportunities which utilities face, as providers of essential services in the UK that use private capital to deliver public value. We have used this to establish the ethical, political, investor and hard business case for a move to establish utilities as public purpose entities, creating public as well as shareholder value. We have further drawn together good practice to identify how utility companies can do this, and how they can measure success.²

It is clear that within a company such purpose needs to cover environmental and social factors, and be established:

- Through genuine stakeholder engagement and co-invention. Key stakeholders are customers and citizens, in part as represented by stakeholder groups, but also in the form of communities, supply chains and future generations.
- With and through employees so that they 'own' it – this is not limited to the front-line staff in repair teams, call

centres etc. who are the main practical interface with customers and citizens but to all employees.

- By purposeful leaders who set the tone from the top, demonstrate commitment and seek to embed purpose through vision and values into structures, governance and, most importantly, culture.

Public purpose is not a badge or a box that can be ticked. To be meaningful, utility companies must develop their own purpose, fully understand what it means across their business and embed it throughout their organisations.

Purposeful policy and regulation in utilities

Public utility companies absolutely need to show leadership in terms of purpose. Many are starting to do this. However, companies do not operate in a vacuum. The policy and regulatory frameworks in which they work can both help and hinder the move towards more purposeful business. Getting the 'push and pull' dynamic between companies, government and regulators right is crucial if purpose is going to be put into practice. Moreover, genuinely purpose-led utilities offer the opportunity for a radically different more mature relationship between companies, citizens and regulators. This agenda can also foster 'the right kind of investors': committed to long-term UK investment delivering private and public value.³

This Report sets out what the purposeful agenda requires of government and regulators. This is extremely timely in UK utilities given the recent Government Ten Point Plan for a Green Industrial Revolution, the Sixth Carbon Budget, the National Infrastructure Strategy, the Energy White Paper and the forthcoming recently announced Treasury review of economic regulation.⁴ This is not to mention the 'window' afforded by the end of the RIIO-2 energy price review for transmission and gas distribution (including its welcome move towards adaptive processes such as reopeners) and the PR19 water price review (where Ofwat have launched their PR24 exercise and published a discussion paper on public value).⁵ And following Covid-19 there is heightened awareness of and reliance on good quality broadband for all people and communities, irrespective of location and socio-economic group.

At the same time, in the wider economy, there is an accelerating focus on corporate purpose, stewardship and Environmental, Social and Governance (ESG) factors in investment, with Larry Fink this year highlighting the 'sustainability premium' in his annual CEO Letter.⁶

Supporting work for Sustainability First by Slaughter and May has identified that there is significant leeway in legal and regulatory systems for companies to move further towards sustainability without formal changes in economic regulation, and for regulators to support this without primary legislation.⁷ The overall conclusion from this analysis is that no side should hide behind the law as an excuse not to move in a sustainable and purposeful direction. The key question is how to interpret, and then implement, the law.

That said, it is a brave company which moves its position substantially without at least tacit acceptance from its regulators, and a brave regulator who pushes a direction on the environment or social issues without similar tacit support from ministers/government. Legitimacy needs not only to be earned by companies, it needs to be enabled and promoted by regulators who in turn look to government and parliament for their ultimate legitimacy. Furthermore, since neither regulators nor companies have an ongoing democratic input – indeed both have on some definitions an inherent democratic deficit – clear support for the public value agenda from government seems to us highly desirable. And stronger signals from government can encourage the bold leadership that we need from all actors – policy makers, regulators and companies – to make purpose meaningful.

The scope of this Report

This Report is primarily concerned with policy, regulation and purpose in the energy, water and communications sectors – although change here can act as good practice examples and stimulus to change in the wider economy. It does not directly cover other important issues such as the wider financial changes (including carbon pricing and taxation) or changes to accounting systems or corporate law that are needed for a more sustainable and purposeful future.⁸

The significant differences between utilities are relevant here. The impact and pace of technological disruption in telecoms, for example, is far greater than for water; and net zero is an existential threat for gas while a demand increasing opportunity for electricity transmission. Telecoms is probably somewhat of an outlier more widely: recommendations such as extending the proposed net zero statutory duty to Ofcom, and around culture and

appointments to regulator boards are relevant, but other recommendations may need a more critical examination from the standpoint of the sector – we offer a possible approach below.

This is also true because the Report focuses mainly on monopoly utilities. And it is important to remember that policy on water is devolved to the Scottish and in part to the Welsh governments (and both countries have moved further than the UK government towards purposeful approaches) while energy and communications are mainly not devolved. Despite these differences, the core ethical and legitimacy arguments for purpose and sustainability are common across sectors. And all sectors face major long-term challenges – be they net zero, preparing for increased drought frequency and severity or 5G and full fibre rollout.

A dynamic backdrop

The utility sectors face major challenges in terms of net zero, adaptation, biodiversity, digital inclusion, poverty and inequality.

The deluge of Government and wider policy announcements in the last few months, along with pandemic-related social pressures and new environmental standards post Brexit, are already signalling changes in policy and regulation in utilities. They provide a dynamic backdrop to what purposeful policy and regulation needs to look like in the energy, water and communications sectors. In this decisive decade for the climate, the pace of change is unlikely to slow down.

These challenges and changes will not be tackled by the short-termism that frequently characterises decision making on all sides. This will only amplify the disenfranchisement of the next generation and further fracture the ‘social contract’ between generations. The challenges utilities face also require a different approach from the adversarial positioning that can dominate relationships and lead to a series of one-shot / zero-sum games.

Put another way, we see the purposeful agenda, and the development of public purpose companies, as a positive force which can – suitably supported – break this adversarial short-termist cycle.

Conclusions for government

To navigate through these fast-moving waters, and to move away from the current adversarial relationships, we consider that government should fundamentally review its approach as to what it takes to develop a purposeful utility sector. Our research concludes that policy makers need to give clearer signals to regulators and companies on social and environmental issues. Government needs to ensure that their asks of and incentives to different regulators are more strategically joined up, and that major trade-offs –

e.g. intertemporally – are not ducked. This means, for example, clarifying roles so that there is collaboration to co-produce and then deliver a single agreed net zero pathway and climate adaptation plan.

Where government may not be central to the agenda (e.g. on issues other than net zero, fairness, adaptation and biodiversity), we urge policy makers to step back and give the space for the major change which is needed on purpose and the surrounding issues in these areas.

Priority conclusions for joint policy and regulatory approaches

There are two key areas, however, where our research indicates that government and regulators need to work more closely together and prioritise for attention. The first is around welfare. A wider debate about fairness and utilities, and the balance between the welfare state and utility company support for vulnerability and deprivation, is urgently needed. The second is around local and regional issues, given for example that climate and growth pressures – and energy sources – vary between regions, but also that issues such as access to fast broadband are themselves enablers to regional recovery. Government and regulators need to urgently address questions of how to interact/facilitate interaction with community and local/sub regional democratic process and with the place agenda.

Conclusions for regulators

For regulation itself, the implications of the purpose agenda are wider. We judged 18 months ago that it was probably not yet the right time for radical change.⁹ In the wake of the net zero commitment, Covid-19 and the need for climate resilience, and with the knowledge of how PRI9 and RIIO-2 have worked – along with technological developments, notably with regard to artificial intelligence, digital and green tech – our judgement has moved on. Thirty years since the design of the current regulatory system, a more fundamental rethink is necessary.

If the existing regulatory model is to be maintained, and in the absence of major institutional change, we now believe that it needs a significant overhaul in how it is applied. Our research concludes that comparative competition in monopoly activities, and the emphasis on customers rather than citizens and communities, has led to a focus on what can be measured and monetised.¹⁰ Although this has encompassed some elements of the wider social, environmental and economic outcomes that are needed for sustainable wellbeing it can also act in opposition to others, where monetary values and comparison across companies are not readily available and/or where community engagement plays an important co-invention role. Econometric models – particularly when backward looking – and detailed, prescriptive outcome measures have exacerbated short-termism and dampened innovation.¹¹

The regulatory process desperately needs a clear voice for the long term and regulatory processes need to be overhauled to take account of long-term issues. Intergenerational issues and pathways to net zero and adaptation cannot be conducted principally through 5-year price reviews: the incentives to put difficult decisions off have time and again been shown to be simply too great. We need a fundamentally new process of ‘adaptive planning’ and a recognition that ‘one size doesn’t fit all’.

Our research indicates that regulators have also become risk averse and softer issues, such as engagement, governance, culture and non-competitive approaches including partnerships and collaborations, have been neglected.¹² To deliver wider social value, and cope with disruption, regulatory culture needs to become as purposeful as that of utility companies. We seriously doubt that the current degree of emphasis on comparative competition, econometric models and multiple targets can create enough space for companies to fully move in the purposeful direction.

Safe spaces need to be created for company / regulator dialogue, free of the series of ‘one-shot games’ – and mutual distrust – which plague the sectors at present. Regulators should take those parts of company business plans which are high on social content and relatively low on bill impacts out of the price review process – or more specifically that part of the process which is based around comparative competition and econometrics. Where done properly, customer/citizen engagement, community facing approaches such as deliberative fora, local negotiated agreements and organisational forms such as Community Interest Companies are all better and more legitimate solutions for these kinds of issues. There is also growing evidence – which has accelerated with the Covid-19 epidemic – of the non-monetised value communities place of the natural world.

Regulation is not standing still. Regulators are already clearly changing their approaches to flex and meet environmental and social challenges. Ofgem’s acceptance of adaptive regulation and Ofwat’s co-creation with the Environment Agency of long-term water resources approaches are partial examples of what may be needed on long-termism, but the jury is still out on how much difference these will actually make on the ground. In our view, change needs to be much more strategic and

systematic and create what Chief Ombudsman Matt Vickers has termed 'an infrastructure of trust' – between regulators and companies and between customers/citizens and companies.

An important corollary to this is that government must recognise that regulators will need to experiment/innovate and that this inevitably carries some risk – by its nature not all innovation will work. Regulators need the space and the

permission to loosen the reins in some areas and delegate assurance and decisions to third parties – including local communities. This also applies to how the NAO, CMA, Departmental Select Committees and the Public Accounts Committee approach the agenda.

The following recommendations are challenging, beyond a doubt. But the prize is great: public utilities delivering for and facing towards those they serve, now and in the future.

Summary of recommendations

Overarching recommendations

1. Purposeful approaches

Genuinely purposeful companies which are delivering social and environmental objectives through the board room, with and accountable to staff and citizens/communities, can play a major role in responding to the critical challenges we face now and over the next 30–70 years. Companies need to adopt this agenda, not as a response to regulation or for PR, but as a strategic vision driving a public value culture. Regulators and Government need to work with and foster this agenda.

2. Trust, culture and principles

A comprehensive and coherent package of measures is urgently needed to create 'an infrastructure of trust' and a fundamentally different culture on all sides. Government, regulators and companies need to work hard to build safe spaces for mature discussion of the 'wicked issues' that will not go away.¹³ Conversations are needed across boundaries to build understanding, identify common interests, share good practice and provide constructive support and challenge. This is not advocating a return to 'smoke-filled rooms' but a clear need for more considered and consensual decision making. Adopting a new set of 'Sustainability Principles' for economic policy and regulation can help create the appropriate values and norms for purposeful business and align the interests of Government and regulators with investors, companies and wider stakeholders.

Recommendations that represent major changes

3. Who pays for welfare

Government needs to urgently clarify how it sees the balance going forwards between the welfare system and utility company support for people in fuel and water poverty and who cannot afford to access broadband, now and in the future. The debate of who pays – bill-payers or tax-payers – cannot be ducked any longer. We do not think the current approach is sufficient even for the short-term impact of Covid-19 and the resulting recession, let alone for the fundamental impacts of climate change and net zero.

4. Citizen interests

Policy and regulation in utilities needs to move from a focus primarily on consumer interests to also include citizen interests. All parties need a significant reappraisal of the role of place, local democracy and communities in utilities, particularly where these are place-based anchor institutions in a local area. The opportunity to legislate for statutory duties and the plans for early strategic guidance could be used to help ensure equity between current and future generations and to rebalance regulator protection towards citizens as well as consumers. This should not be left for after the next price reviews.

5. Price reviews

With monopoly utilities, regulators should only do those things through formal price reviews which cannot be done well through other routes. They should take those parts of company business plans which are high on social/environmental content – particularly if hard to monetise – and relatively low on bill impacts – out of the price review process (or more specifically that part of the process which is based around comparative competition, outcome incentives and econometrics). Where done properly, community-facing approaches such as deliberative fora, local negotiated agreements and specific decisions made by groups such as Community Interest Companies are all better and more legitimate solutions for these kinds of issues (there is a read across here to recommendation 13 on the case for a continued role for company specific stakeholder groups).

- 6. The NAO and CMA** These two bodies can play a crucial role in developing (or hindering) a purposeful environment. They need to coinvent and reinvent how they interact with regulators on the purposeful agenda, to allow regulators to adopt a more permissive approach without facing reputational damage or undue blame where properly considered innovation/experimentation does not ultimately deliver the benefits hoped for. For the NAO there are questions of how to take a longer-term and forward looking perspective and for the CMA questions around wider citizen as opposed to consumer interests and harms and the role of partnerships and collaboration.
- 7. Adaptive planning** A fundamentally new process of ‘adaptive planning’ is needed – with future thinking and scenarios at the heart of infrastructure investment plans and plans which deliver over multiple price control periods. These need to be owned and co-created by companies, regulators and government, but need legitimacy from civil society. This will require involvement from government to ensure that responsibilities are clear, notably for the production of and delivery against net zero, adaptation and natural capital pathways – based on common scenarios for 2050 (or relevant time period) and agreed approaches to translate this into actions which are required in the short to medium term.
- 8. Beyond 5-year price reviews** Intergenerational issues and pathways to net zero and adaptation cannot be conducted principally through 5-year price reviews: the incentives to put difficult decisions off have time and again been shown to be simply too great and, as the National Infrastructure Commission have said, strategic investment simply needs to be on a longer scale than 5 years. A fundamental reappraisal of the economic regulatory approach to long-term infrastructure is required.

Evolutionary recommendations that build on existing processes

- 9. Regulatory duties** At a minimum Ofgem, Ofwat and Ofcom should all have net zero statutory duties. Ofgem and Ofcom should also have climate resilience and adaptation duties, in the same way that Ofwat currently has.
- 10. Strategic Policy Statements (SPS)** Government should widen its use of Strategic Policy Statements¹⁴ to regulators, including:
- To ensure that long-term issues are not deferred unnecessarily (perhaps through a formal role for the National Infrastructure Commission (NIC) and/or the Committee on Climate Change (CCC) / CCC Adaptation Sub-Committee).
 - To require improved liaison with Local Authorities and directly elected mayors.¹⁵
 - To direct more strategic inter-regulator working on systems issues, such as climate and resilience, and common issues, like culture and governance – where there is an opportunity to more widely leverage the work of the Financial Reporting Council (FRC).¹⁶
- 11. Levelling up and utilities** The Government’s levelling up agenda is important, but for energy and water at least we suspect that regional imbalances in infrastructure are not as systematic as this agenda suggests they are for, say, transport. There is scope for a piece of freestanding government sponsored work (perhaps by the NIC) looking dispassionately at the regional and sub regional balance of utility infrastructure assets, needs and spend.
- 12. Climate adaptation** Government should further develop its net zero and fairness agenda, to cover climate change impacts and wider resilience needs.
- 13. Stakeholder engagement** There remains a strong role for formal company level independent groups and wider company stakeholder engagement, although taking some issues to regional or national level – via regulators and policy makers as appropriate – and using deliberative forums such as citizens’ assemblies is also necessary. The remit of company level groups should move towards one based around company purpose, local/community engagement and understanding, fairness and culture.
- 14. Innovation** The use of pilots and innovation funds by regulators and companies are to be commended. However, some of these need to be at production scale and there still needs to be more focus on innovations around behaviour change, which is crucial to deliver net zero¹⁷ and to address the ‘persistent demand overshoot’ (directly and through supply chains) in our use of natural resources.¹⁸ There needs to be a much clearer pathway from pilots and innovation to industry wide change. There also needs to be a recognition that some pilots will fail.

Relatively quick win recommendations

- 15. Third-party assurance** Regulators should institutionalise a significant role for third party and risk-based assurance, concentrating instead on the things only regulators can do well, thereby deescalating at least part of the current regulator/company tension. ISO standards, Reporting recommendations from the Task Force for Climate Related Disclosure (TCFD), and structures like B Corp certification all offer expertise which the regulators lack, and a non-confrontational assurance process. There is a case for this to be used to create wider and fuller ‘earned autonomy’.
- 16. Licence conditions** Regulators should consult their sectors on whether to amend utility company licence conditions to cover public purpose.
- 17. Diversity** Government and regulators should work together to ensure that regulator boards and senior management are, and are seen to reflect, the full range of regulatory duties. They need to contain genuine diversity of skills and of approach, thinking and culture. Appointment should, however, always be on merit.
- 18. Regulatory co-ordination** Regulators need a fundamentally more strategic joined up approach across sectors, based on recognition and understanding of system interactions and co-resilience. The NIC could help play a role in this regard.¹⁹

Recommendations and telecoms

As suggested above, telecoms is something of an outlier in this Report. Some of the above recommendations – e.g. around a net zero duty, culture and appointments on regulator boards etc. – are clearly relevant. Others will need a degree of ‘sifting’. A possible approach to this might be as follows:

How relevant are these recommendations to the telecoms sector?

Key dimensions of analysis	How does this apply to policy and regulation in telecoms?
Is a utility	Yes, and increasingly in the case for broadband.
Is regulated	Yes.
Is a monopoly	Mainly no. Whilst there is still a focus of regulation on Openreach and mobile termination bottlenecks, most markets and services are competitive.
Price caps are a central feature of regulation, and inflexible to achieve some regulatory objectives	Retail price caps are a thing of the past as competition has become established and markets de-regulated. Price controls only remain in targeted upstream infrastructure markets.
The regulator is focussed on consumers rather than citizens	Ofcom’s General Duties (Section 3 of the Communications Act) cover consumers and citizens distinctly.



Photo by Aaron Chavez

Package of approaches needed to facilitate purposeful utilities

Frameworks

What?	Purpose?	Commentary
<p>Policy frameworks</p> <ul style="list-style-type: none"> • Strategic Policy Statements • Strategic Guidance 	<ul style="list-style-type: none"> • To provide a framework of desired outcomes • To signal direction of travel to regulators & companies • To build confidence for investors & wider public 	<p>Important for long-term issues that span decision-making horizons (e.g. price controls). Water sector has a Strategic Policy Statement, energy does not yet although one has been signalled</p>
<p>Economic and regulatory principles</p>	<ul style="list-style-type: none"> • To get alignment on values & norms • To set expectations – for all stakeholders • To help navigate trade-offs 	<p>Existing principles of economic policy & regulation are not fit for purpose in a disrupted world. Need a new set of sustainability principles</p>
<p>Regulatory duties e.g. on net zero, resilience etc.</p>	<ul style="list-style-type: none"> • To guide regulatory & company decision-making • To help in prioritization • To provide legal cover, if regulators feel this is needed 	<p>Can take time to understand what this means in practice, become 'ossified' and lead to a legalistic approach that may not provide flex in the face of uncertainty</p>

Regulatory/tools approaches

What?	Purpose?	Commentary
Adaptive planning (working back from long-term goals under different scenarios to identify areas/decisions for urgent short-term action)	<ul style="list-style-type: none"> To help maintain optionality for significant and uncertain investments 	Requires some redundancy in the system. There are a spectrum of uncertainties – needs to be used appropriately. Requires scenario based approach and move away from traditional cost benefit analysis/net present value (NPV)
Adaptive regulation – e.g. uncertainty mechanisms, reopens etc.	<ul style="list-style-type: none"> To provide flexibility in price controls in the face of uncertainty 	Risk that this will just become an ongoing bureaucratic process without public scrutiny
Risk-based (and anticipatory) regulation	<ul style="list-style-type: none"> To prioritise regulatory efforts towards high-risk areas / companies: risk is defined in terms of consequence of issues and probability of their arising. 	Need to ensure that this is forward looking; not just to address historic risk (past may not be good guide to future)
Ethical regulation	<ul style="list-style-type: none"> To focus on culture and behaviours, in regulators as well as companies 	Has shaped thinking of Water Industry Commission for Scotland (WICS) and conduct regulators
Competition and collaboration	<ul style="list-style-type: none"> To develop new approaches / discover new information and to deliver wider systems benefits 	Need to get the balance right between both and put appropriate governance processes in place

Culture

What?	Purpose?	Commentary
Stakeholder engagement e.g. <ul style="list-style-type: none"> Consumer challenge Negotiated settlement Deliberative fora Community interest companies 	<ul style="list-style-type: none"> To better ensure services meet changing needs To enhance accountability To help shape company culture 	Questions: who sets the agenda, how to ensure this is representative and how to avoid capture. Engagement can be both a hard regulatory tool or a soft cultural tool
Corporate/policy/regulatory cultures <ul style="list-style-type: none"> Purpose & values Leadership, governance & diversity Public appointments 	<ul style="list-style-type: none"> To get decision-makers to do the right thing To align diverse interests To avoid group think, improve legitimacy etc. 	Need to move from adversarial to constructive relationships & create safe spaces for difficult conversations

Source: Sustainability First

Utility regulation and public purpose

1.1 The ongoing rationale and need for economic regulation and policy intervention

This part of the chapter provides an overview of the rationale for economic regulation in utilities. Readers already familiar with these issues may wish to proceed to the next section.

The traditional rationale for economic regulation in energy, water and communications arises from the fact that many aspects of utilities, most notably those involving infrastructure networks, are natural monopolies.

Economic theory and empirical research has consistently found that, unregulated, monopolies will tend to a) over price; b) tend to have fewer drivers towards efficiency; and c) underinvest in some types of R&D innovation. In formal terms, monopolies will, unregulated, produce socially suboptimal quantities of goods and services, and excessive prices and thereby fail to achieve allocative efficiency.

Note that the emphasis here is at least in part on social optima: this does not equate to the minimum necessary production – consumers and society may well demand more environmental and social goods and nature require this – than monopolies would left to themselves produce.

On top of this, large companies in particular tend to benefit from information asymmetries relative to customers, and where there is competition, costs (real or imagined) of switching suppliers can be significant. So where there is a degree of choice/competition, a lighter touch regulation is often still justified – and in places (such as the oversight of the efficient and equitable use of limited resources such as spectrum and numbers in telecoms) is essential.

For energy and water in particular there are also a number of important externalities such as environmental impacts which justify some form of intervention. Examples include carbon emissions and water pollution. Such interventions need not always be regulatory, but in practice regulation is often the best approach.²⁰

And utilities in particular involve social issues. These include the impacts of service interruptions but also distributional issues. The issue of distributive efficiency is key here: in welfare economics, distributive efficiency occurs when goods and services are received by those who have the greatest need for them. (Technically this arises because of the diminishing marginal utility of money, so the 'value' of £1 off bills for a poor consumer is greater than that for a richer consumer.) In part this is a question for the welfare system (see below) but along with the regressive impact of bills it justifies some of the help given through utilities for poorer customers. For the most essential services such as water there is also a legislative ban on disconnection: this is part a societal judgement related to ethics and public health as much as a function of distributive efficiency.

All utilities also face questions of wider public goods such as provision of services to rural areas, which may again justify some form of intervention on the basis of equity, but also in terms of amenity and ecology benefits to urban citizens. And many environmental and social issues can be difficult to price, making their measurement and what to do with them complex. There are also significant associated issues in terms of options value.

Finally, there is some evidence that private monopolies will left to themselves invest less in R&D and be less efficient in production than competitive industry. So the economic notion of productive efficiency – the lowest cost to produce a given output – further justifies regulatory intervention.

The analysis of things like allocative, productive and distributive efficiency is, importantly, not static. Over time technological and societal change will impact on where the 'efficiency frontier' lies. For distributive efficiency in particular there are also important intertemporal issues: trade-offs between current and future generations. And market definitions also change over time (e.g. the convergence of certain aspects of the electricity and electric vehicle (EV) markets). So what is efficient may depend on how you define the market and the time period you are looking at. To get some of the breakthroughs needed for circularity this will be increasingly important.

In a number of cases policy intervention is required to direct economic and other regulators towards the societal aims which they should take into consideration along with their duties relating to oversight of natural monopoly. These include social, environmental and economic policy goals and encompass the approach regulators should take towards addressing the externalities and public goods set out above.

Governments typically also add more political goals to those justified by pure market failure. Examples might include:

- Levelling up/regional policy
- Devolved/cross-border issues;

Finally, policy makers, perhaps alone, can look across sectors and across regulators. Issues with multiple impacts such as climate change mitigation or adaptation may well require collective regulatory action.

Information and communications technologies as enablers of CO₂ reduction

A Report for the International Telecommunication Union by the German consultancy WIK, drawing on findings of the EU ENERGISE project, identifies the following key priorities for cooperation between the telecoms and energy sectors in developed economies.²¹

Type of cooperation	Corresponding strategic goals
Smart metering	Achieve significant take-up of smart meters by private households and businesses alike
Network operation	Set appropriate frameworks that allow data collection and analysis to improve network performance and facilitate predictive maintenance of network infrastructure
Infrastructure sharing	Implement policy measures that facilitate infrastructure sharing to reduce costs and increase speed of deployment e.g. infrastructure mapping, cost reduction directives
Joint deployment	Implement policy measures that foster the deployment of empty ducts with every other utility
Development of new products and services	Support innovation strategies by local enterprises

The Report comments: ‘...this is not a call for more regulation, but one for more coordinated and balanced regulation. Furthermore, it has to be pointed out that regulation cannot force industry to collaborate.’

Similar thoughts appeared in a 2009 Report for Ofcom,²² which also proposed that Ofcom should:

- Use system energy efficiency as a criterion and/or requirement in spectrum licensing
- Manage system transitions (e.g. between generations of mobile technology) to reduce duplication and energy requirements
- Support tighter energy efficiency standards for customer equipment, especially audio-visual.

ICTs in energy demand-side management

The UK’s large investment in smart energy metering requires translation of household consumption into simple, actionable consumer messages in order to maximise its effect. Suitable software processing smart meter readings could produce useful suggestions in real time like ‘Check if a heater has accidentally been left on’, or longer-term ones like ‘Replacing your old fridge could save you money [in xx months]’.

While this challenge may primarily be met by market forces, policy-makers and regulators have important support and stimulation roles. Both central and local government can also lead by example, in their own procurement and publicity – smart street lights which get brighter when people are present being a particularly visible example.

ICTs in mass consumption behaviour change

Looking ahead, perhaps the biggest potential for ICTs in enabling CO₂ reduction is in tandem with carbon footprint labelling of all products and services, alongside (preferably dynamic) carbon taxation. Whether ordering from home or out shopping, a consumer considering a potential purchase, and equipped with a smartphone or equivalent and a suitable app, would encounter not just its price but information on its embodied carbon and likely future emissions. Smart shopping assistants could guide the consumer to the best buy, taking account of previously expressed preferences.

Coupled with changing public opinion (maybe reflected in advertising restrictions on carbon-heavy goods and services like flights and fossil-fuelled transport, as for tobacco) this could make the biggest difference of all. Again, the role of regulation would generally be as an enabler to such developments, though carbon pricing (and as a last resort carbon rationing) would be an important element.

1.2 The limitations of economic regulation and policy in terms of purpose

The main limitation to regulatory action is the well-known ‘principal-agent problem’, which occurs when a ‘principal’ (government via the regulator) delegates an action to another individual or ‘agent’ (the company) but does not have full information about how the agent will behave. The interests of the principal also diverge from that of the agent, meaning that the outcome can be less desirable than the principal expects.

The divergence of interests between regulator and company mean that regulators tend to look for ‘objective’ tools, such as econometric models, focusing on what can be accurately measured and audited over other considerations that are harder to monetise or place into econometric boxes. This can however create an industry in itself and be very bureaucratic and black box – there is very little challenge on ‘what evidence is enough’.

In a nutshell, an unintended consequence of regulators acting to minimise the principal-agent problem is a tendency to shoehorn as much as possible into comparative models and outputs, which stifles innovation (not simply in the sense of engineering innovation but also in terms of companies innovating with regard to purpose, business models and engagement). Soft, reputational and non-comparative measurement is also very hard to fit within this approach. We explore this in some depth later in this paper.

A further issue is that the econometric approach can feed on itself, in terms of creating a culture and skill set within regulators which is happiest in the detailed technical as opposed to the cultural/purposeful space.

Finally, it should be noted that the principal-agent problem rightly requires that regulators have quite a high bar for burden of proof. Separating the ‘purposeful sheep from the goats’ is hard, when even unreconstructed companies will want to present a purposeful veneer. This in turn is

compounded by the environment within which the regulator operates, driven by audit by the NAO and scrutiny by the Public Accounts Committee and pressures of chair reappointment. Few regulators get castigated for being too rigid or tough on companies. But if they get it wrong in the other direction they are fair game. It is not surprising that we have a culture of risk aversion in many regulators.

The main limitations to policy action are fourfold.

First, policy makers are not close to the action: whatever systems they put in place are reliant on regulatory and other interfaces; and the understanding of frequently moved ministers and senior civil servants of what utility companies and the regulatory interface feel like on the ground is often limited. On a day to day, or even year to year, basis their ability to direct or control regulators is limited – it has even been suggested that appointment/reappointment/removal of the chair is the main real lever government on occasion have access to: though we would strongly urge that this use of the appointments lever should be a last resort only.

Second, policy making suffers from limited bandwidth. Unless issues are a high political priority (e.g. manifesto commitments) or there is a serious, concerted and lasting lobby (e.g. in the run up to the energy price cap) legislation space in particular is severely constrained. This is even more so at present given the competing legislative and wider requirements associated with Covid and Brexit.

Third, there is seldom a single policy view. Lead energy, telecoms or water departments may be able to coalesce around a particular policy objective. But they have to contend with Treasury, Cabinet Office and Number 10 ducking in and out of policy, often at a late stage. And within the Treasury at least there tend to be competing claims of economic and finance department issues (the same may also be true within a department such as BEIS which covers both energy policy and the interests of industrial energy consumers). So the finance department side of the Treasury dislike public spending solutions, and may therefore push costs (including social costs) onto bills. The economic department side of the Treasury will argue that infrastructure is essential to national competitiveness and productivity but may also argue that bills are regressive and taxation/public spend is better because it is progressive. Conversely the finance department side may themselves then argue against bill increases, since these may add to the welfare bill. Typically, in the past, the finance department side has won out, leading to an ingrained short-termism which seeks to push bill increases and intergenerational spend into the future.

Finally, and relatedly, policy on energy is conducted from BEIS, on water from Defra and on telecoms from DCMS, and almost exclusively by the ruling government. There is no clear government home for cross utility issues or for common analysis,²³ and the home for policies on responsible business and better regulation have moved around and is unclear to many outside government. And there are few meaningful fora for cross party co-invention.



Photo by Markus Spiske

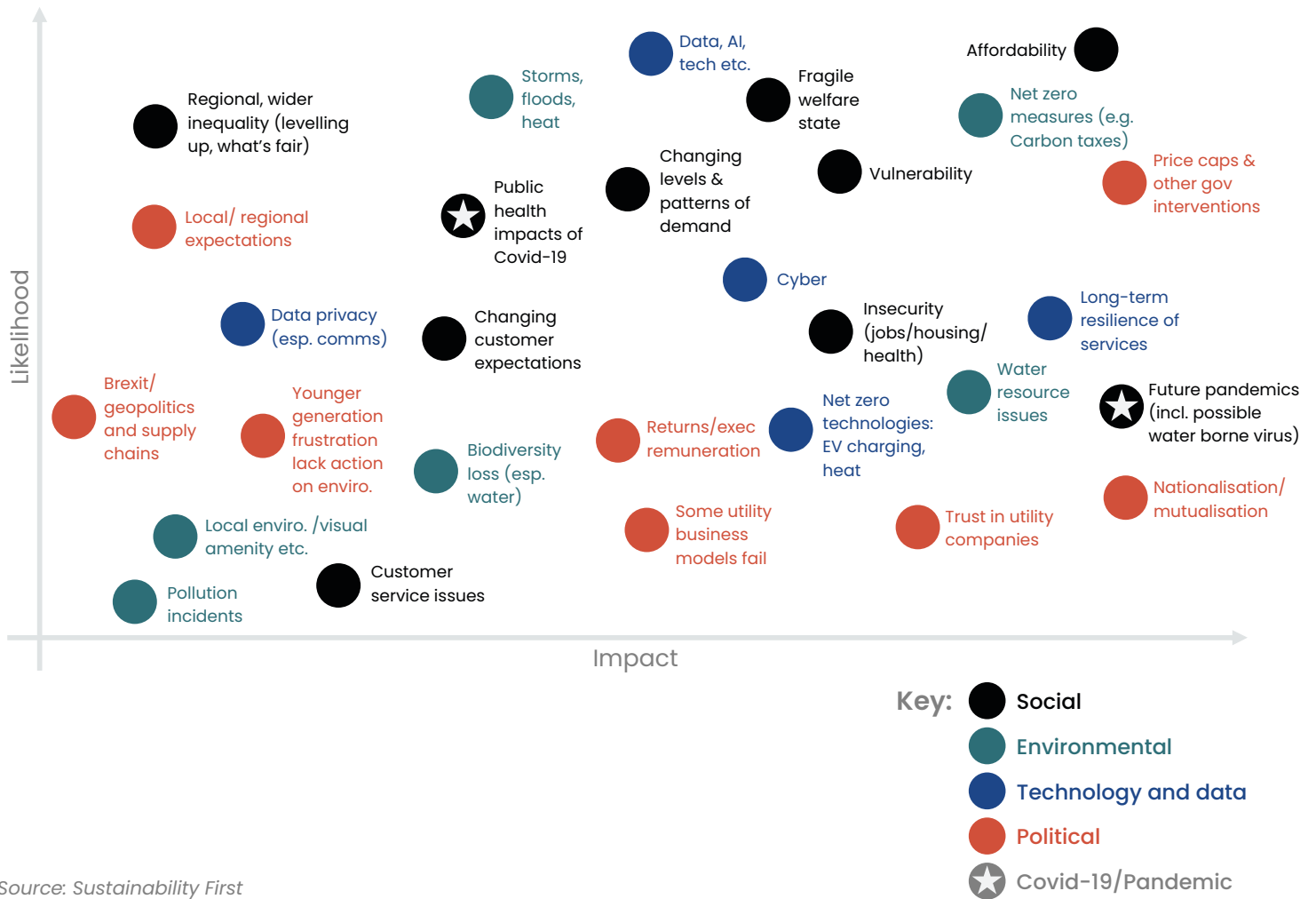
1.3 Previous Sustainability First work on the case for public purpose in utilities and what this might mean in practice

Even before the Covid crisis and the climate emergency movement, the notion that capitalism had to be about more than simply short-term shareholder returns had been growing worldwide. The World Economic Forum, US industry bodies, leading financiers including the Governor of the Bank of England, the Chief Executive of Ofwat and the British Academy have all been making the case – in different guises – for what had become known as purposeful companies (aka ‘public purpose’, ‘rethinking modern capitalism’ and ‘sustainable/responsible business’).

If this is true for companies in general, it is even more true for public utilities, particularly when they are monopolies. These companies deliver essential public services. Their ‘licence to operate’ as private sector deliverers of public value rests in part on an implicit compact with customers and with society. Should this compact fracture – perhaps due to perceived excess returns to investors or executive pay or evidence of poor practice or under-delivery – the sectors in question face severe scrutiny.

Furthermore, while continuing to deliver their core activities will remain as important as ever, the utilities are central to the big issues of the next 30 years: net zero, adapting to climate change, biodiversity (in water in particular) and, through energy and water poverty and lack of broadband access, inequality and changes in patterns of vulnerability in society.

Major long-term challenges for utilities



Source: Sustainability First

The nationalisation agenda that recently came to prominence in the UK was in part a response to this. It came to a head in the run up to the 2019 election period, fuelled by high returns and some notable failures of service companies outside the utilities sector; but behaviours of at least some utilities lent credibility and popular support.

In a disrupted, social media-driven world, a demonstrable and evidenced commitment to public purpose ought to be a major positive. With regulation and legislation inevitably being partly responsive to events, forward-thinking companies with real social and environmental commitment will deliver and respond better to the inevitable problems such as floods, droughts or supply outages, and will have earned the endorsement (or at least the benefit of the doubt) of customers, citizens and wider stakeholders. Risk is reduced, and in all probability, long-term shareholder value can be enhanced.

There is no doubt that, with expectations rising on utilities, there has been some genuine movement. The utility sectors' response to the Covid-19 epidemic reveals a number of companies instinctively looking to do the 'right thing'. But this is not just about crisis management, it is about the vision, strategy and culture of companies in their day-to-day operations and their forward planning. It is about understanding the social and environmental context in which the company operates and leading, rather than following, regulatory incentives to create public value. And here the ground has shifted and expectations are rapidly evolving. Nothing in this paper obviates the case for companies themselves to move further to put purpose into action.

Building a purposeful utility company

So what does a public purpose/sustainable licence to operate actually entail? This is what our recent Fair for the Future Project publications – **Developing and Embedding a Sustainable Licence to Operate and a Purposeful Business Approach: A 'How-To' Guide for Public Utilities**; and **Sustainability Metrics Discussion Paper** – set out. The Guide in particular provides a utility specific systematic and stretching framework for putting public purpose into action. Drawing on in-depth case studies from outside the sector chosen for their relevance to essential services, good practice from utilities before Covid, and a number of examples of how companies have responded to the pandemic, it illustrates key areas which form part of a purposeful company. But we are also quite clear, this is not simply about a short-term CSR response or a one-off 'badge'.

Purposive companies, it is argued, need to:

1. **Build their social purpose on firm foundations of ongoing stakeholder engagement.** Reaching out to stakeholders in ways which conventional uni-directional 'stakeholder engagement' has not typically done before. Genuine co-invention means working with stakeholders, rather than telling them, and using this insight to innovate and provide better services.
2. **Demonstrate how they are delivering their social purpose and what social impacts they are having.** A willingness to open up to external scrutiny and assurance, and the transparency which goes with this, is necessary to demonstrate delivery of public value. Authenticity is also clearly vital, which means getting delivery right first and foremost but also not spinning bad news.
3. **Ensure their people and culture are focused on delivering their social purpose.** This requires cultural change beyond visions. Whatever the answer is it needs to be developed with employees and with the commitment of engaged leaders. The board need to lead, the CEO and executive directors have to 'get it' and explain and live it, but the biggest external advocates are front-line and operational colleagues – repairing mains/cables, in the call centres and in their local communities – supported by their 'head office/support' functions. They will be making decisions about what is 'fair' on a daily basis in an increasingly disrupted world.
4. **Integrate their social purpose into their core strategy.** Ownership of this agenda should be across the company, not simply in comms or regulatory interfaces (or, for that matter, even in the sustainability part of the company – one of the problems which the CSR agenda has had for the last decade or more).

"Public purpose is not a fad, or a transitory issue which will go away. It is the basis of a long-term compact between utilities and society, enriching both. And when companies put talk in this area into action, they can more confidently work with stakeholders to reshape their policy and regulatory frameworks to ensure these are sufficiently adaptive to cope with the deep uncertainty that we all face."

1.4 The legal and regulatory status quo in terms purpose and sustainability

Slaughter and May have produced four notes for Sustainability First, pro bono, which set out clearly the regulatory and legal baseline (as of summer 2020) covering sustainability in utilities. The notes, which Slaughter and May produced with the benefit of input from Sustainability First and relevant sector experts where helpful, are as follows:

- A definitional note: definitions of sustainability in public utilities for the purposes of this project. This note provides a framework for assessing sustainability, law and regulation in given sectors. It identified six dimensions of sustainability for this work. The first three were around 'goals': long-term and intergenerational outcomes; people centred services and localism; and environmental protection and reduced pollution / emissions. The second group were around the means to deliver sustainable outcomes: short-term flexibility; investment for innovation; and collaboration;
- Water sector note: an overview of the legal and regulatory approach to sustainability issues in the water sector;
- Energy sector note: an overview of the legal and regulatory approach to sustainability issues in the energy sector; and
- Telecoms sector note: a higher-level overview highlighting the key differences in approaches to sustainability issues between the water and energy sector on the one hand and the telecoms sector on the other hand.

Inevitably, the three sector notes have taken somewhat different approaches. The water note is the most detailed, in large part because this sector is the most homogeneous, but also because Ofwat is perhaps the purest economic regulator – although Ofwat is a statutory consultee on a number of environmental processes such as Water Resource Management Plans, it has fewer wider regulatory or delivery roles than Ofgem or Ofcom. Common issues between the sectors are not repeated in the two later notes. The telecoms note is relatively 'light touch' given the width of operations and pace of change. As the notes themselves make clear, they should not be taken as formal legal advice. The notes do not intend to draw policy or regulatory conclusions. What the notes do give is an unprecedentedly rich and easily accessible source material for the legal and regulatory backdrop to these important issues.

A summary of the main statutory duties of regulators and Strategic Policy Statements is attached as **Annex A**.

A major conclusion of the Slaughter and May work is that in a number of areas:

- Utility companies have considerably more formal freedom to move in the purposeful direction, both by themselves and in collaboration with other companies, than they are using or may even be aware of. There is seldom a legal excuse not to deliver on sustainability.
- Equally, regulators have considerably more freedom to promote sustainability and purpose within their formal remit than they have used (or perhaps realised).

That said, as discussed in the rest of this Report, the formal legal and regulatory structures around economic regulation are only part of the issue. There is a wider body of regulation on sustainability, notably on the environment, some of which is currently based on process rather than outcome, and the same is also true on health and safety. The way in which regulatory and policy actions are applied in practice (by environmental and health and safety regulators as well as economic regulators) have major impacts on the extent to which companies and regulators feel they can safely change their behaviour without being implicitly penalised. And elements at least of the governance of companies (and shareholder interests) and of regulators (e.g. board composition) are set by or heavily influenced by regulators and government respectively: it is often this governance and associated culture which acts to limit the use of such flexibilities as may exist.²⁴

There is an unanswered question as to how far this really limits action or is special pleading. Companies can be overly fixated on even the most informal of regulatory pronouncements. But there is a genuine case for appropriate changes in regulatory practice and pronouncements to support the purposeful agenda and avoid perverse incentives or unintended consequences. Equally regulators do need assurances from government and the NAO that they will not be attacked for taking some well-judged risks in areas like sustainability or by encouraging innovation and pilots.

The policy–regulation interface in terms of purpose

The last 10 years have seen a major change in the approach of Government to economic regulation. A decade ago, the consensus from all the main political parties was that economic regulation had largely to be, and be seen to be, fully independent, within the strategic duties in primary legislation. Indeed, with few exceptions this had been the approach throughout the Blair/Brown governments. But over the last decade this laissez faire ideal had been largely discarded even by the Conservative Party. It was for example Michael Gove, as Secretary of State for Environment, who proactively lent weight to Ofwat’s pressure on offshore financing structures, gearing and senior remuneration. And whatever the legal arguments for who had the powers to act, Prime Minister Theresa May and Greg Clark as Secretary of State for BEIS had pushed for some time for something akin to an energy price cap to be introduced and were willing to step in themselves with legislation.

There may be some reappraisal of this with the post-Brexit rhetoric about deregulation (‘project speed’ in the National Infrastructure Strategy). But it seems just as likely that a deregulation agenda will operate in tandem with instinctive interventions from government with regulators, particularly given the government’s focus on ‘building back better’, the climate change agenda and the centrality of utilities to those agendas.²⁵ Certainly, the deregulation mindset has not stopped the Chancellor announcing that all big companies will be mandated to adhere to TCFD reporting by 2025.²⁶ Moreover, if deregulation is aimed at enhancing the competitiveness of the traded sector, it is not immediately obvious that it need impact as much on domestic monopolies. Finally, it can credibly be argued that existing economic regulation is highly bureaucratic and that a deregulatory government might well push for lower compliance cost approaches in that area; something which our recommendations would support.

The recent Penrose Review’s focus on better regulation rather than deregulation may well prove influential here. The Review notes that digital is a game changer and the need for economic regulators to ask how much of the industry that they regulate is no longer part of a network monopoly and can now be ‘normalised.’

The trend towards intervention, whether direct (e.g. price cap legislation) or indirect (e.g. Michael Gove’s public statements), is not unwelcome, for all that some interventions have been better considered than others and we would strongly caution against micromanagement. In a disrupted world, regulation needs steers about how to react, and the political climate itself is faster moving in such a world. Furthermore, where so fundamental an issue as the nature of a private sector utility business – providing an essential service and critical national infrastructure – is concerned it is hard to see how anything other than some form of government lead or endorsement will suffice.

The same is also true for other big issues which concern utilities: net zero, climate adaptation, biodiversity, universal broadband, ‘fairness’ and distributional issues. Only government can in effect set the strategic agenda.

There is, however, a need for a degree of discipline as to when and when not to intervene and which tools are appropriate when. In the rest of this section, we analyse a range of approaches from Government that would be constructive and timely in shaping a purposeful utility sector:

- There is a **case for new statutory duties**, in particular on net zero and climate resilience. There are strong arguments that these should cover all economic regulators and not just Ofgem for net zero and Ofwat for resilience.
- There is an even stronger case for publishing a Strategic Policy Statement for Ofgem, **refreshing the coverage and content of Strategic Policy Statements** from government to other regulators, and formalising the issuance of these statements around 2 years before each price review. These could potentially include material on promoting purpose, setting the balance between welfare state and utility action on deprivation/fuel and water poverty, and formalising equity between current and future generations.
- The Energy White paper and 25 Year Environment Plan will need to be followed up **with ongoing policy statements**.²⁷ The Third UK Climate Change Risk Assessment is likely to require similar statements. These statements will need to be of a form which the regulators can readily give meaning to on the ground, and their framing could usefully have regard to the desirability of purposeful responses: for example, in allowing flexibility in implementation for co-invention with stakeholders and quality regulators.
- Government should consider its approach to a **purposeful utility sector**, and should both make some form of statement about this – e.g. in the forthcoming review of economic regulation – and use its role in selecting board members and chairs to create regulator boards to ensure this is reflected (for example, there is no apparent environmental voice among the Ofwat or Ofgem NEDs). It should also

consider whether more formal regulator performance appraisal should be instigated.

- There is a strong case for the government, aligned with the Treasury's just transition work, **to be more explicit about its approach to welfare policy and its balance with government's aims** and desired delivery vehicles on fuel and water poverty and broadband access: this is likely to grow in importance in the post Covid-19 recession. This needs to consider the right balance between putting social (and environmental) policy costs on bills v taxes – not just tweaking the details of the energy and water social tariffs etc.²⁸
- The post Brexit agenda will need to see evolution of **government approaches to wider environment and health and safety legislation**. There should be options to move the balance of this towards outcomes and away from process regulation.
- Government needs to ensure that their **asks of and incentives to different regulators are joined up**, both the economic regulators, but also with for example other regulators such as the Environment Agency and the Health and Safety Executive. Government also can (and does) seek to bring regulators together (the review of the Water Industry Environment Programme may be an example of this): it can and should do this more often.

- There is a strong case for government supported changes to the way the **NAO and CMA** look at utility regulation issues:
 - a) For the CMA, what is needed is to move to consider citizen as well as consumer outcomes and harms and recognising the value of collaboration on certain issues;
 - b) For the NAO, it is to take a longer-term and future-facing perspective and taking a view on some of the softer issues such as behavioural / culture change.
- Outside of these areas, and the unseen but invaluable behind the scenes contact between government and regulators, government should not be afraid to stay silent.

In what follows we examine the policy routes available to government/policy makers. This is necessary because it isn't possible to make judgements about, for example, statutory duties, in isolation from the other policy instruments open to government.

We then illustrate this by analysing three aspects of the purposeful agenda which we return to in later sections: **creating a voice for the long term; the relevance of the 'place' agenda for utilities and the role for local and sub regional elected bodies; and the approach to fuel and water poverty and vulnerability, against the backdrop of wider social and welfare policy.**

Photo by jeshoots.com



2.1 Policy routes

2.1.1 Statutory duties and strategic position statements

Statutory duties are clearly an important tool in ensuring Government's major priorities are enshrined in legislation – in many ways the strongest policy statement a government can make – and in giving regulators the legal or political powers they may need to change direction. **Annex A** summarises the primary and supporting statutory duties in water, energy and telecoms and the most recent Strategic Policy Statements.

Regulators' statutory duties – starting to change?

Change in duties has been slow, in part because of the need for primary legislation but also because many of the basics of economic regulation have not changed. It was quite a major event when the 2014 Water Act introduced a new primary duty on Ofwat covering resilience, to be equal with the existing 3 primary duties.

The notes to the then Water Bill explain that this:

*'requires Ofwat to secure the long-term resilience of systems to environmental pressures and population growth. It also requires Ofwat to ensure the companies take action to meet the long-term needs of consumers, by promoting appropriate long-term planning and investment; and by taking any and all relevant measures to manage water resources and reduce demand.'*²⁹

The Government has also committed to examining a new statutory duty for Ofgem on net zero:

*'Subject to Parliamentary approval, the Strategy and Policy Statement will require the Secretary of State and Ofgem to carry out their regulatory functions in a manner which is consistent with securing the government's policy outcomes, including delivering a net zero energy system while ensuring secure supplies at lowest cost for consumers.'*³⁰

The process of developing and embedding statutory duties may also potentially provide a helpful focus for regulatory teams to think about what their directions mean for their future work. That said, they have some significant limitations:

- a) because they rely on primary legislation they can only be amended infrequently. If legal clarification is required once they are in force this can therefore be difficult to achieve – beyond reference to ministerial statements during the passage of legislation (which can have legal relevance under the Pepper Hart precedent).³¹
- b) It is quite hard to force regulators to take a broader and more strategic account of their statutory duties. We have been unable to find any cases to date where judicial review or other formal challenge has been laid against regulators on the grounds of undercompliance with statutory duties, although it may have been prayed in aid in informal legal interactions, and doubt has been cast about the likely success of any such challenge should one be laid.
- c) Equally, as the Slaughter and May work has shown, regulators can move quite a long way without a new formal duty. For example, the Ofgem net zero statement and a considerable emphasis on net zero in R10-2 and in the creation of new reopeners were introduced without the cover of the new duty, albeit with the Government's net zero 2050 aspiration driving change and with a future consumers duty and an existing little-known duty on emissions reduction (see annex A).
- d) Statutory duties tend to be set out in sector specific legislation – e.g. the Water Act 2014, or a future Energy Bill. We argue that some duties, such as net zero, should potentially have a cross sectoral dimension – given the energy intensive nature of water, and telecoms/digital's key role as an enabler of many of the net zero solutions. Equally, climate resilience should be a duty for energy and telecoms regulators as well as for Ofwat.
- e) Statutory duties are arguably better at focusing on key outcomes such as customer protection, net zero and resilience than wider issues around corporate purpose.

Purpose is both more overarching than these outcomes but is also more flexible and responsive. Because it must be enshrined in company behaviours and visions it is at two removes from the legislation. And duties say very little about how regulators should do their job, interpret and implement their duties and the cultures and behaviours they encourage.

So some statutory duties are necessary – and we support net zero and resilience duties for Ofgem, Ofwat and Ofcom. We also note that most of the wording in the existing duties refers to consumers. A strong purposeful amendment would be to extend some at least of these to citizens, and where appropriate, communities.³²

But statutory duties are certainly not sufficient due to their high-level nature. All the main sectors now supplement them (or plan to do so in the case of energy) by statutory guidance or Strategic Policy Statements: issued under the aegis of primary legislation but without requiring new legislation. In water, which has perhaps the longest pedigree here, such statements are often issued by government at a relatively early stage in each price review: but this is not essential; statements could usefully be issued early in a new Government's tenure, and of course in energy there is no single timetable for price reviews.

In our view these additions are as, if not more important, than the duties themselves. They signal the strategic outcomes that government wants the sector in question to achieve without being prescriptive about the process. They give more detail on how the duties should be approached and are more capable of change/flex. They can also cover how regulators might approach elements of their role (although typically policy makers have rightly fought a little shy of this).

One way to address this issue, which draws on thinking from ethical regulation (see annex C), is to take a principles led approach. Sustainability First has previously identified that the principles which currently underpin economic policy and regulation in essential services are no longer fit for purpose. A new set of 'sustainability principles' are needed for a disrupted world (see Section 3.5).³³ By creating a set of common values and norms, these can be used to help align the interests of policy makers and regulators with investors (and the members of pension schemes etc.), companies and wider stakeholders.³⁴

The process behind a Strategic Policy Statement – the Government's 2017 strategic priorities and objectives for Ofwat

This policy statement was issued in September 2017 in order to 'describe what we [Government] expect of the water industry'.³⁵ It goes on to state that 'Ofwat should have regard to these expectations in carrying out relevant functions, except where a more explicit steer is provided'. The timing was intended to work within the PR19 timetable.

The legal backdrop to the statement was the 2014 Water Act, which created new powers for the Secretary of State, but the publication of similar statements predates this legislation and the founding legislation is the 1991 Water Industry Act.

A draft of the guidance was published for consultation in March 2017, and as required in the Act Defra explicitly also consulted 'Ofwat, the Consumer Council for Water, relevant undertakers, licensees, the Environment Agency, Welsh Ministers and Natural Resources Wales'. A draft of the final document was required to be laid before Parliament for 40 days before final publication.

The substance of the document is based around a number of explicit priority statements and objectives for Ofwat.

2.1.2 Other legislation – including on wider regulation.

Sector specific regulation such as the Water and Energy Acts referred to above, does not only contain specific statutory duties, of course. They will also set out wider policy and targets, of relevance to economic regulators, to other regulators such as the Environment Agency and to other bodies such as the CCC. Examples might include the requirement on water companies to adopt private sewers (in the 2010 Floods and Water Management Act) and the Energy White Paper commitment to ‘review the overarching market framework set out in the Gas Act to ensure the appropriate powers and responsibilities are in place to facilitate a decarbonised gas future’.

There will be wider legislation such as the Environment Bill and Health and Safety legislation, which will have important implications for economic and wider regulation of utilities.

There is also a body of legislation which transpose EU Directives, such as the Urban Waste Water Treatment Directive, into UK law, and then Brexit legislation which in some cases ensures these can operate in a post Brexit

2.1.3 Less formal pronouncements and wider policy tools (White Papers, Green Papers, consultations etc.)

Our assessment of the Slaughter and May work is that regulators have a lot of the freedom they need to change the way they work with companies and the things they require of them. But we also acknowledge that what is needed is the assurance/cover from government to do this.

So in many cases, the most powerful thing the government can do is to be clear about the direction of travel they are looking for, and the areas where they would encourage change. That is indeed what has happened with net zero: without a formal duty, the new 2050 net zero aspiration, statements from the Prime Minister down about the importance of carbon reduction and the knowledge that an Energy White Paper would eventually emerge gave Ofgem the cover to make contributing to net zero one of their main objectives.

Similarly, as mentioned above, no legislation was needed for Ofwat to bear down on offshore vehicles etc., given the ‘cover’ from Michael Gove as Secretary of State for the Environment, reinforcing their own consultation in this area.

One issue here is, however, that the more informal the pronouncement the greater the risk that it will not be joined up across Whitehall. And even if it is, regulators and companies struggle when there are machinery of government changes or ministerial reshuffles: a new minister’s statements may not be fully consistent with his or her predecessors’, even more so if there is a change of government.

world. In terms of addition to bills, for water at least these are probably as important as all other legislation combined. Brexit gives a major opportunity to rebalance this legislation: towards risk-based approaches and towards outcomes rather than process.

Readers will be aware that in many cases detailed implementation of primary legislation is achieved through secondary legislation, discretion over which can be quite wide. Secondary legislation is much easier to achieve parliamentary time for,³⁶ although governments have on occasion sought to delay laying such legislation where elements might be controversial or they have had second thoughts (so for example, secondary legislation to commence schedule 3 of the 2010 Floods and Water Management Act, on sustainable drainage systems, has yet to be laid!)

Finally, in a number of places, primary legislation allows government to produce statutory guidance on implementation.

Government has a panoply of vehicles for getting messages out about desired direction, without requiring legislative time heavy changes to law and outside the cycle of Strategic Policy Statements:

- White Papers are, in theory at least, statements of policy.
- Green Papers are consultative (though the boundary between green and white papers has become somewhat blurred).
- Strategy documents such as the national infrastructure strategy are powerful summary documents of direction.
- Ministerial speeches, answers to parliamentary questions (which can be ‘planted’ when a particular point or statement is desired to be made), and other less formal public steers can serve as informal cover.
- There is also a large amount of interaction between ministers, senior officials and regulators (see below). It would be unusual (though not unknown, and Budget announcements might be an exception) for either side to spring a surprise on the other and regulators would typically test out on officials those announcements they make where there is no need for a formal Chinese wall. Examples include joint working on things like the energy Smart Systems Plan, and the secondment of regulatory staff into departmental legislation teams.

2.1.4 Appointments, culture, and indirect communication

Under the various founding and amended legislation, coupled with general practice on public appointments, one of the important ways in which government can influence regulators and give effect to policy is through the **appointment or removal (more likely, decision not to reappoint) of key individuals in regulators, most notably the chair**, and to a lesser extent other board members.

It has even been argued, to some effect, that where a regulator is not performing as government would wish and/or prioritising the things which government/ministers wish that the threat (or actuality) of non-reappointment of the chair is ultimately the main lever of last resort left to government. We would argue that ministers' involvement needs to be tempered by the need to get the right skills and behaviours in a chair, but it is a legitimate role.

Government have made some appointments around customer skills but have not typically looked for appointees with externally recognised commitment to wider social and environmental goals. And in the past at least, in practice the capabilities etc. sought in board members have generally

reflected the wishes of the chair. Both chair and board member appointments can tend to be constrained in terms of 'left field' candidates – and thereby in securing a board with genuine diversity of thought and the ability to overcome group think – by rules and process around public appointments.

The role of appointments is well known. What may be less apparent to some in the industry or other outside commentators is the extent of informal contact between regulators and government. Some of this will be systematised: such as regular 1:1s between the energy director-general and Ofgem CEO, or catch ups between the water minister and Ofwat Chair. Much more happens under the radar, however. It would (Budget/tax announcements apart) be rare for a significant government policy announcement or consultation not to have been run past the regulator in advance. And while there will be a strict separation on price sensitive issues such as price control final determinations of cost of capital, government/policy views are fed into price reviews and other regulatory announcements.³⁷

2.2 Three issues for purposeful utilities: long term vs short term, local vs national, bill-payers vs taxpayers

In the second half of this chapter, we consider some key examples of how all of the above should come together in the purposeful sphere.

2.2.1 Setting long-term priorities

We have argued above that there can be a commonality of interest between politicians, consumers and regulator leaders towards pushing expensive decisions out in time. A purposeful utility sector, and indeed optimal policy making and regulation, will however seek to ensure that future generations do not pay a disproportionate cost for future network and wider resilience. (Note: that is not to say that future generations should not pay more, indeed an optimal level of greater future payment is implicit in the notion of a discount rate/social time preference rate.)

Should there be a wish to address this there are a number of approaches which could be taken (and it may be politically desirable to tie future decision makers' hands in this aspect, as suggested in the National Infrastructure Strategy).

First, **Annex B** summarises approaches taken by in particular the Welsh Government – their Future Generations Act – and the Scottish Government – their National Performance Framework – to set in place cross cutting requirements for intergenerational equity, which apply to utilities but also to other sectors. We see this approach as having real merit but given the non-devolved nature of most utility regulation some UK equivalent would need to be adopted, and getting everyone round the table at this scale is much more difficult than for the devolved administrations – not least because boundaries vary across issues.³⁸

However, lessons need to be learned from these experiences in terms of what has and hasn't worked and what may or may not be transferable.

Second, changes to statutory duties (for example with regard to resilience and/or net zero) can require regulators to take into account intergenerational aspects of specific outcomes, but do not extend to general intergenerational equity. This should be remedied.

Third, this could be amplified by Strategic Policy Statements/statutory guidance – an approach which could in principle cover wider issues than simply resilience/net zero. Equally, this could give greater effect to what the duty means: for example, in water there is discussion over what an acceptable 'standard of service' is (in other words, how often a drought could be tolerated to impact on water supply): a number of commentators have argued, persuasively in our view, that this is a societal judgement which government could and should set out.

Fourth, government could add a formal role in the process for an organisation **such as the NIC and/or the new post Brexit environment body as a champion of future generations** – giving it an assurance role with regard to the price review process for example, or less controversially giving it statutory consultee status with regard to long-term investment plans.

Fifth, Government can walk the talk, stress the importance of fairness and inter-generational equity in speeches etc., give support to climate deliberative fora looking at the utilities etc. We support establishing a formal citizens' assembly on net zero (or formalising the role in utilities of the existing Climate Assembly), and an important role for this in informing utility policy and practice.³⁹

Sixth, we very much doubt that the nature of investments required over time, against the backdrop of other impacts on society and on deprivation, can be made without a proper debate about, first, the balance between publicly/taxpayer funded utility infrastructure and infrastructure funded from bills and second the relative roles in supporting communities facing fuel and water poverty of utility companies and the welfare state: see section 2.2.3 below.⁴⁰ A related issue also concerns the role for taxation and demand management/behaviour change, where the recent 6th Carbon Budget Report note both that a balance between behaviour change and investment was the optimal approach to net zero and that government intentions to date have majored more on investment.

2.2.2 How to introduce 'place' into economic regulation/ address democratic deficits?

Much of the discussion in this Report is pitched at either the national level or the level of the individual consumer/citizen, and how the two interact. The impact of utilities is of course not simply at these two levels. Many of the companies are themselves regional, cross regional or sub regional. Even when not their activities may be organised at regional level. And local impacts and interactions are many faceted: in electricity transmission issues regarding the impact of power lines on local landscape; in electricity distribution, the interactions with local energy supply and demand; in gas with Combined Heat and Power (CHP)/district heating; in energy, the interaction of all parts of the value chain with Local Authorities etc. in the creation of Local Area Energy Plans; in water with local catchments and in many cases local sources of supply; in telecoms with strongly varying bandwidth by community.

In addition, all companies have community and education programmes, most will work alongside Local Economic Partnerships and local volunteer bodies such as rivers and wildlife trusts, new projects and repairs/emergency works have local impacts (indeed street works and traffic disruption is often the main thing individuals will experience from utilities in any one year) and some will require local planning permission. Finally, community solutions to social issues such as deprivation and vulnerability are often better than initiatives from headquarters, and local multi agency partnerships will often be better at tackling these issues than utility companies alone. Covid has demonstrated the value of these sorts of responses.

Seventh, only Government can ensure that responsibilities for translating its long term objectives for net zero, adaptation and the natural environment into pathways and route maps to the desired end point are clear. Much of the detailed work on, say net zero pathways, can and should be done by regulators with the industry (see adaptive pathways in section 3). But the issue of responsibilities needs mapping and sorting urgently. An example of where this seems to be going on the right lines is the Government, Ofwat, Environment Agency etc. joint work on the water industry national environment programme.

These seven areas are not necessarily alternatives or mutually exclusive. But given the electoral and wider politics about bill increases as the end of price reviews approaches it seems to us that measures towards the top of this list may be easier to achieve. However, the final issues around citizen involvement and the balance between welfare and utility support and between infrastructure and behaviour change seem to us essential.

There is also a wider issue of the local, regional and devolved political landscape and the need to engage with this in order to overcome what would otherwise be seen as something of a democratic deficit. This is strengthened by the growth of directly elected mayors and of local climate movements.

Finally, a purposeful company will want to move to wider engagement with and potential co-invention with communities.

The place agenda has a particular relevance to the current Government, which has started to set out a strong **regional** narrative and the starts of regional policy initiatives: most notably on transport spend and with new guidance on 'levelling up'.

In truth regional policy has been returning to the agenda for some time, initiatives such as the Northern Powerhouse and the growing importance of directly elected mayors being perhaps the most obvious examples.

There is however a question as to the policy (as opposed to political) importance of this for utilities, noting that utilities, as essential services, are central to places and place making/shaping.

We would argue that the levelling up agenda probably has, for energy and water at least, relatively little to say. The Government guidance on levelling up is mainly couched against a background where some forms of infrastructure decisions have been biased towards more wealthy areas of the country (aka the south east).⁴¹ In particular, where funds are held centrally, and allocation of these funds is governed

by relative net present value/benefit cost ratios, the allocation can be distorted by the higher income levels and property prices in wealthy areas.

With (largely) regional utility companies, and with networks which are either sub regional (water, electricity and gas distribution) or national (electricity transmission, gas transportation, parts of telecoms) we suspect that most decisions in utilities have been made without excessive reliance on relative NPVs across regions. Such biases as exist may reflect more an implicit cross subsidisation from urban to rural areas.⁴² Perhaps the biggest example of a regional distortion has not been towards London, but the increase in water bills post privatisation in the south west, where a large spend on cleaning up bathing waters in an area with a long coastline coupled with a relatively low density of population led to the highest bills in the country. In this case the government stepped in with a national subsidy.

One possible exception to this may be broadband and 5G, where it is important that roll out is equitable across regions and as (for 5G) largely new infrastructure there is more scope for the introduction of regional distortions.

There is scope for a piece of freestanding government sponsored work (perhaps by the NIC) looking dispassionately at the regional and sub regional balance of spend on utility infrastructure. We would certainly urge that this be done before any moves to redress any perceived imbalance.

The role for Government may be greater with regard to **the politics of local accountability, directly elected mayors, devolution** etc. The Labour Party's proposals around nationalisation included a strong governance role for local authorities. (We do not take a view on the nationalisation agenda, but experience from the way which the industries operated and were funded when in the state sector suggests that the case for operating to a public purpose

2.2.3 The approach to fuel and water poverty and vulnerability, against the backdrop of wider social and welfare policy

Social policy concerns about water and energy have majored on fuel and water poverty, the needs of customers in vulnerable situations, and one off issues such as the impact of water metering on poorer large households, regional imbalances in bills (notably the perceived excessive load on South West Water customers – and a resultant government subsidy), socio economic imbalances in retail switching and in some cases rural/urban issues such as access to broadband and the difficulties associated with off grid gas consumers.

would not be obviated by nationalisation in a similar manner to the past). We note that on another element of national infrastructure with a strong regional dimension there is already a statutory role for local authority input: the regional flood and coastal committees. We could see merit in something analogous for some at least utilities – perhaps most obviously water given the catchment nature of many of the issues. Another statutory route could be the insertion of words to the effect that regulators should 'have regard to' the views of local authorities and directly elected mayors. Easier to do (and without the need for primary legislation) would be to appoint at least member of the regulator board who has a background in local government or community issues.

The agenda of place/place making has come in and out of fashion in government over the past 2 decades. Whatever the vogue at any one time, the role of utilities in place making is significant. This goes well beyond the issue of developer connections: which is the one area where utilities already, for obvious reasons, have a central role. Local energy solutions are a powerful creator of place, broadband connectivity and bandwidth can be an essential local business enabler, and there is strong evidence that there is a strong correlation between successful places and the natural environment, of which water quality is an important part. Finally, more prosaically, existing and proposed future sources of revenue from planning decisions (section 106/community infrastructure levy at present and the proposed national infrastructure levy) can enable utility related work – such as sustainable drainage.

There has not, to our knowledge been any government assessment of the role of utilities in place, nor guidance to regulators on what should be encouraged.⁴³ We would urge government to bring together the regulatory departments (BEIS, Defra and DCMS, with the place making department, MHCLG) to take this forward.

Although government documents such as the 2008 water strategy have attempted a strategic overview, approaches to socio economic concerns have usually been piecemeal and predominantly reactive (certainly the south west water rebate and the energy price cap owed as much to political pressure as to a fully formulated social or regional policy).⁴⁴

All of the above means that the current situation involves a number of entrenched cross subsidies which have evolved as a result of individual ad hoc decisions.

This is more important now, as the Covid and post Covid recession seems likely to involve a significant increase in energy and water poverty (and a related issue given that water supply cannot, by law, be disconnected due to non-payment).⁴⁵

We argue strongly that now is the time for a step back by government with a fundamental assessment of what they require from utility companies and what is the function of welfare policy – and to launch some kind of public debate/conversation on this. The Treasury review of fairness and net zero, and the Energy White Paper announcement that Government should open up a strategic dialogue on fairness and affordability, are important planks of this approach. But it needs to be compounded by analysis of Covid-19 and recession impacts and of distributional consequences of adaptation to climate change (where in essence the rich can move to avoid flood /urban heat hot spots whereas the poor cannot, and where certain types of impact – coastal erosion and urban heat – seem to be positively correlated with existing

deprivation). It needs to be cross sectoral, not just on energy. And it needs to look at cumulative impacts of change and how patterns of vulnerability are changing, within and between generations. The latter is key for any assessment of a 'just transition.'

A further part of this analysis is the potentially regressive nature of utility bills, compared with the progressive nature of public spending funded out of taxation. For example the UK Energy Research Council find that the poorest households spend 10% of their income on heat and power in their homes, whereas the richest households only spend 3%.⁴⁶

Bills, tax and welfare reform – an unanswered question

In Sustainability First's Virtual Book **Building from the Corona Crisis toward a Sustainable Future (2020)**, we made a number of recommendations for government policy, regulatory and institutional change, including on tax and welfare reform. These were based on the over 1,200 submissions to our Summer 2020 art and essay prizes on this theme; so in many ways were 'crowd-sourced' from young and creative people.

We concluded that cross subsidies in bills have reached their limits and tax and welfare reform is needed. Costs are increasingly passed onto customers through utility and other bills, and these often have unequal impacts. Reform is needed to address both the growing affordability crisis and to pay for net zero and climate adaptation.

Sustainability First's recommendation was that a fully representative Citizens' Assembly be established to tackle this issue. A Citizens' Assembly could help deliver a fair and acceptable outcome, considering proposals and advising policymakers on the implications and unintended consequences of different approaches. This would need to build on local public engagement, with a new social contract linking national and local activity.

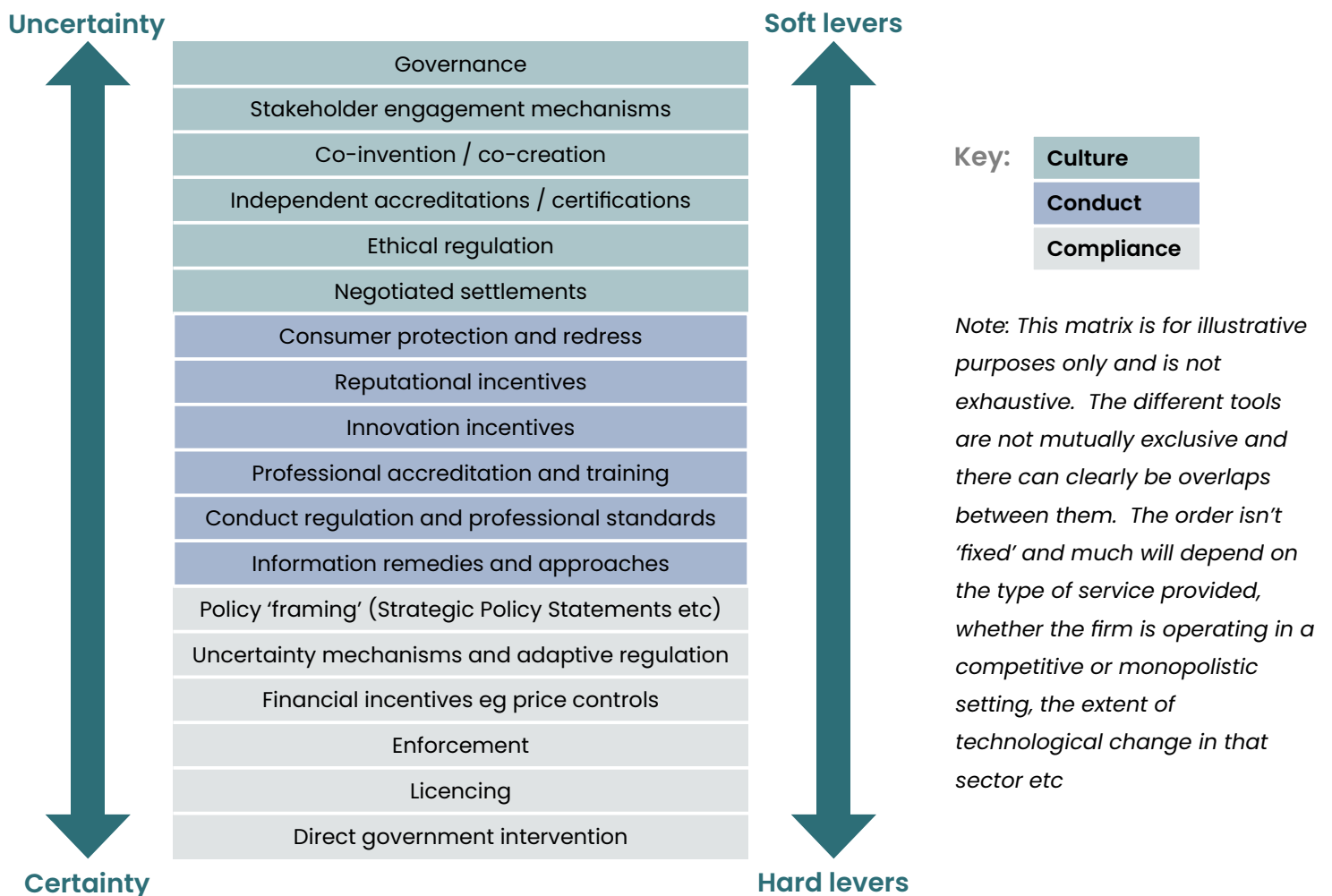
Further ideas on tax reform from entrants to our competitions and contributors to the book included:

- A 'fuel duty escalator' and move to removing fossil fuel subsidies and introducing new fossil fuel taxes.
- Wealth-based council taxation and redistribution.
- Provision of subsidies and tax cuts for construction firms, local authorities, and renewable energy providers to reskill workers.
- Frequent flyers taxes.

The tools currently used by regulators are better defined and more coherent than those for government and policy makers. In essence these comprise:

- The price review settlements in terms of totex and cost of capital coming together in approved bill increases;
- The price review settlements in terms of specific outcomes and reward for over achievement plus (more often) penalty for under-delivery;
- Differential regulation (e.g. fast track status) for companies achieving certain thresholds for performance/quality of business plans etc.;
- Formal licence conditions;
- One off arrangements such as multi price review deals/long-term approaches (e.g. Thames Tideway tunnel, long-term water resources settlements) and within price control flexibility: uncertainty mechanisms, interim determinations of price limit (IDoKs) etc. and requirements for introducing competition (e.g. into major projects through direct procurement);
- Special funding arrangements, for example innovation funds, direct procurement;
- (Very limited) delegation to others, e.g. consumers, reference to International Organization for Standardization (ISO) standards;
- Formal or informal arrangements between regulators, such as the Water Industry National Environment Programme (WINEP) task force in water, and Ofcom's plans to work with the Information Commissioner's Office (ICO) and the CMA digital markets unit.

Possible matrix of regulatory tools and levers



Source: Sustainability First

A recurrent theme in our discussions has been that how the regulator uses these and other tools has a major impact on companies' ability, and any sensible investors's willingness to adopt, purposeful approaches. The unintended consequence of too tight a focus on comparative competition and on tying companies down to specific outcome have tended to be a focus on what can be measured and monetised over what ought to be done.

To be more specific, economic regulators have relied heavily on two tools to seek to ensure allocative and competitive efficiency and to overcome the principal-agent problem:⁴⁷

- The first of these is **'comparative competition'** using econometric models to compare spend, suitably adjusted for company specific factors such as (e.g. in water) differential pumping requirements and hence energy costs between sub regional networks, between companies. Along with key decisions, such as the appropriate extent of pass through of business rate increases, this typically leads to a figure for 'baseline totex' within which companies must fund a range of operations classed loosely as bau.
- The second is a set of **outcome measures with associated incentives:** financial or reputation penalties for under delivery, in some cases allied with rewards for outperformance. Outcome measures are a mix of common measures (e.g. on leakage in water, or on production of an Annual Environment Report in energy), and company specific measures/'bespoke' measures – often influenced by stakeholder engagement. In many cases Outcome Delivery Incentives (ODIs) are also based in part on surveys of willingness to pay.

Both of these are understandable, and none of what follows should be taken as saying that the need to bear down on the market failures of overpricing and under-efficiency should not remain a key focus of economic regulation. Nor that there is not a clear place for genuinely outcome based regulation (as opposed to process targets which can be subject to 'Goodhart's law' – the existence of a process target may distort the relationship between that process and the desired outcome), and for ODIs in areas such as leakage, customer satisfaction and reduction in business carbon footprint where there are nationally compatible measures and something close to common impact. Even here, however, there is a case for more active codesign with

stakeholders.⁴⁸ We note that it has been suggested that attempts to extend the role of ODIs, for example in Ofgem's creation of Consumer Value Propositions, have struggled to correctly estimate how much societal value companies can actually unlock in advance – and therefore have (on an ex-post assessment) mis-set the reward methodology.

But both suffer from at least two major drawbacks: they focus on what can be quantified and/or monetised; and they are highly inflexible: once set they are very hard to change to adjust for changing circumstances (and they can – particularly in water – lead companies to adopt a 5-year mindset as well) and technologies and approaches (where regulation may reinforce existing ways of doing things / defining the market etc.). They have also tended to lead to an emphasis on big ticket capital (much of which is outside baseline totex) and away from incentivising softer approaches such as catchment management and behaviour change.

We do not think that changes to econometric and ODI methodologies can alone redress these concerns. We argue strongly that there needs to be a fundamental rebalancing, with econometrics focused on major baseline spend and ODIs focusing on major national objectives, but with much more freedom – and some spend set aside with suitable checks – to undertake local etc. initiatives coined with communities and stakeholders.

In addition, these aims clearly need to be secured in a more nuanced way, with conscious balance against the needs of society and future generations. While the core tool of 5-year price reviews will probably remain (though we have previously argued that it is too short for major capital decisions and arguably too long for operation costs), much more needs to be decided between and outside price reviews (see below) – albeit that the extent of this may vary between the fastest and slowest moving sectors. Furthermore, current regulatory practice is overweighted to formal performance commitments set by the regulator and insufficiently focused on wider measures and assurance on purposeful/public value behaviours.⁴⁹

Finally, in regard to all the questions of regulation discussed in this chapter, it is important to note that the precise prescription may vary between sectors. We would urge regulators to identify for themselves, with their industries, the best way forward to promote and encourage purpose in their area.

Regulating for purpose – two recent issues

It is a reflection of the timely importance of the issues discussed here that related questions have been raised within two recent sector-specific conversations.

First, there is a debate, particularly in water on the back of Anglian Water's changes to their Articles of Association, about whether regulators should make public purpose a licence condition. Our view is that, providing it is done at a high level and is not too prescriptive, this could be a useful addition and could guard against future owners or management teams that challenged the company's purpose. This is however quite a subtle topic and we probably cannot do the debate justice here.

Second, there is a question which Ofwat have raised in their recent discussion paper on purpose in water:

*'we are keen to explore whether any of the enabling elements [to promote purpose in water companies] is considered more fundamental than others.'*⁶⁰

Our tentative view is that progress is needed down a number of the paths explored below, and that the whole would be more than the sum of the parts: in other words, the options are complementary rather than alternatives.

3.1 Ethical regulation, risk-based approaches, anticipatory regulation and arms-length regulation

As referenced above, there is much that regulators can do, if they wish, to provide some flexibility where companies can demonstrate they are operating to a clear public purpose and to encourage such moves without losing appropriate grip on bills or on companies who are merely doing what they think the regulator wants to see. There are a number of tools and approaches to achieve this – many of which overlap. We recognise that with even the less forward-thinking companies seeking to adopt purposeful rhetoric the evidential bar needs to be set quite high. Not all of these tools are solely designed for this: some would also benefit companies which can clearly display a track record of simply being well run.

Annex C summarises the work by Professor Chris Hodges on **ethical regulation**, and its recent use in utilities by the Water Industry Commission for Scotland. A big part of this work focuses on the need to establish trust and to focus regulation on areas where that trust has been abused. There is a challenge with ethical regulation in translating the academic principles into hard regulatory practice, particularly outside an area like Scotland which has close relationships between all the key players. For us, the main benefit of considering ethical regulation is perhaps that it reinforces the need to think about regulatory culture and behaviours, the signals that particular approaches give more widely, and the need to create safe spaces for company/regulator/stakeholder interaction. It would for example readily work with The Chief Ombudsman's notion of regulators needing to build an 'infrastructure of trust'. And it is very much aligned with Sustainability First's proposals on the need for a new set of principles to underpin economic policy and regulation which establish the new values, norms and behaviours that are needed to meet the challenges of the 'decisive decade' which we are in.

Other regulators such as the Environment Agency have adopted more explicitly **risk-based approaches** to regulation. The amount of time and effort devoted to regulating any one entity would depend on a combination of impact, consequence of problems and track record in avoiding problems. So a high consequence company would generally receive more regulatory attention than a lower consequence one, but there are also opportunities for better run/more purposeful companies to earn a degree of earned autonomy. All the economic regulators have elements of their practice which could be described as parts of this (for example the Ofwat 'fast track' system and the Ofgem Business plan incentives approach). But much more could be done to systematise this, in particular as regards formally measuring consequence – for example a regime which works for a large water and sewage company is not likely to be proportionate for a small water only company – and making explicit the trades offs between competence and earned autonomy.

Risk based permitting

The Environment Agency have at times operated a risk-based approach to certain types of pollution permit/regulation. The information and answers for five 'attributes' gives a band rating from A to E/F. An 'A' rating means less 'regulatory effort' from the EA, while 'E' or 'F' means more regulatory effort because of the increased environmental risk. The five 'attributes' are:

- 1) Complexity – the type of activities covered by the permit e.g. hazardous materials; what could be released into the environment.
- 2) Emissions and inputs – the amounts allowed to put into and release from an activity – to air, water, land, waste entering and leaving a site.
- 3) Location – the state of the environment around the regulated site: how far from where people live, work and play; proximity of, for example, Sites of Special Scientific Interest; nearby surface and ground waters and if the site could be flooded; the potential direct release to water; the extent of any local air quality problems.
- 4) Operator performance: management systems and enforcement history.
- 5) Compliance rating – how well the operator has kept to past permit conditions.

Clearly in regulated utilities the scope for this may be more limited than in pollution inspection, and the need for some form of comparative assessment means that all companies would need to receive a reasonable baseline level of involvement. But we are not convinced that the fast track/business plan incentives approaches which Ofwat and Ofgem have created are best designed from a risk basis, or that they go as far as they could.⁵¹

Anticipatory regulation is another possible dimension here which is particularly relevant in fast moving areas where innovation and the pace of change is dynamic (such as telecoms and financial services).⁵² This takes a future facing, iterative and collaborative approach and uses practices such as regulatory sandboxes to test new ideas.

Relatedly, there are options about the use of **third-party assurance** to substitute for some elements of regulatory oversight. **Annex E** sets out some of these options in more detail, but in summary:

- There are a panoply of ISO and other standards with third-party assessment. Some, such as the B Corp model and elements of Anglian Water's changes to their Articles of Association, are explicitly geared towards judging adherence to corporate purpose (see Annex E for more details).

- There are also judgements/rating by other regulators or standards which can be used. So in water, the Environment Agency rate water and sewage companies on a transparent scale for their track record on environmental water quality. This approach is already used to a limited extent. So, for example, compliance with ISO 14001 is included as part of the Ofgem methodology statement on energy company Environmental Action Plans. And a condition of the 'fast track' approval to South West Water's business plan in PR19 was that they improve from 2 to four stars in the EA's ratings. We acknowledge too that simply transferring responsibility to a third party can simply create gaming against a new set of standards. Finally some companies have pledged to put their purposeful performance past independent third-party assurance: this is for example part of the changes to the articles of association which Anglian Water have undertaken.⁵³ Ofwat's question in their purpose discussion document about the possible role of 'capitals' analysis could also perhaps score here. We cover the option of using consumers/stakeholders to do part of this in the next section.

Dreams of Carbon and Trust – Chief Ombudsman, Matt Vickers

En route to net zero, low carbon technologies (whether these be electric vehicles, heat pumps, hydrogen, smart devices, or demand shaping) will inevitably involve widespread behavioural change and require people to take up new models of consumption and engagement. Matt Vickers argues, therefore, that the switch to low carbon won't happen without high trust by consumers.

The face of customer service in energy has changed over the years. Efforts to reduce costs in the short-term has led to outsourcing, digitisation, and the use of platforms and managed services. But Vickers asks what about longer-term questions of trust and engagement? Rather than investing in the technical solutions to customer centricity, Vickers urges energy companies to embed this thinking into operating models and culture: 'It's time for an infrastructure of trust. Of Engagement. Of Insight.'

In efforts to reach net zero, we need as much focus on trust as we do on carbon. Marketing, story-telling and customer services are some of the most important capabilities needed. We must take every opportunity to understand customers better to build confidence and trust.

Our overall assessment is that there is much more that regulators could do to transfer assurance to third parties and to be more explicitly risk based in approach, with an element of earned autonomy. This would enable economic regulation to concentrate more on the kinds of issue which economic regulators are expert in. And it would encourage companies to define and stick to purpose in a transparent and accountable fashion. It would, finally, reduce one feature of price reviews which we have encountered time and again: the sheer weight of common regulatory performance metrics faced by companies and the stultifying effect this can have on innovation and on genuine creation of purpose.⁵⁴

There are three important nuances here however.

First, regulators will need some 'red lines' covering areas where they and they alone have to make the final judgement. The obvious examples are the cost of capital (albeit that regulators could do more of this together)⁵⁵ and the big-ticket parts of totex which determine the large part of changes in bills. These red lines could however arise out of

wider cross sectoral consultation with key stakeholders and to be effective would need CMA tacit agreement, at least.

Second, we would not advocate following this route in a vacuum. There will need to be clear governance around it, with redress for bad faith and arrangements should, for example, a third party exit a market. There are perhaps lessons that can be learned here from the debates around regulation of Third-Party Intermediaries in the energy market.

Third, inevitably moving in this direction would involve regulators taking an element of risk. When something does go wrong, the call is always for regulators to have acted in advance/removed the leeway for things to go wrong. It is important for government, and in particular the NAO, to accept that such risk is legitimate. **One approach might be to seek to co-invent the design of more flexible regulatory approaches with the NAO.**⁵⁶ However, it would clearly then be important for the NAO to then step back when it comes to *implementation* of these approaches.

3.2 The role of consumer and stakeholder engagement in purposeful regulation

Ultimately, the role of pure economic regulation is to protect the customer from excessive pricing, and where economic regulators have wider duties or legislative requirements (e.g. resilience, net zero, customers in vulnerable situations) this extends to wider citizen/societal protection, in some cases including future consumers or citizens.

In recent UK economic regulation (again with the exception of the Water Industry Commission for Scotland) attention on consumer and stakeholder engagement has mainly been focused on four related things:

- a) Company specific formal customer/stakeholder/user challenge and engagement groups with varying remits between water and energy;
- b) Statutory bodies: the Consumer Council for Water, Citizens Advice, and the Ofcom Consumer Panel;
- c) Wider company led engagement with customers, often based around willingness to pay surveys, focus groups etc. In some cases these have an element of input/assurance from the customer etc. groups set out in a).
- d) Regulatory led customer research (eg Ofgem's 'Customer First' Panel).

This has been couched in terms of 'triangulation' between regulator, company and customers. There is in our view a place for all of these.

But as **Annex D** and our forthcoming Discussion Paper on customer and citizen engagement argue this needs to be extended, and triangulation rendered more equal as opposed to a largely bilateral relationship between companies and regulator. Many companies have, most commentators have concluded, a patchy understanding of their customers and stakeholders and of their views and preferences – see for example Ofwat's marking of

companies in PR19, where only Anglian Water merited an A in this area, and the lengthy 'challenge logs' which energy and water customer and user groups have registered in their discussions with the companies as the latter formulated their draft business plans. But meaningful ongoing engagement and proper co-invention with stakeholders is, we have identified, an essential foundation of purposeful companies. Whatever arrangements are put in place they need to widen the incentives on companies to undertake full engagement and reward this where it happens, rather than reduce/centralise it.

Improving consumer and stakeholder engagement also has an important connection to the question of how utilities should adapt to local considerations (see section 2.2.2). Despite the salience of the issue in policy terms, this area is fairly comprehensively ignored in current regulatory practice (with the exception of planning for ED2, where with local supply rising in importance it is inescapable) – or perhaps more charitably, it is assumed that companies will be on top of it. There are a few exceptions: Affinity Water gained their enhanced status in PR14 on the back of community catchment plans; and RIIO-2 (GD, T) allowed some spend for street works and very loosely encouraged multi agency approaches to vulnerability and Ofcom have been broadly supportive of community telecoms approaches.⁵⁷ An important rider would be that engagement with devolved administrations is something which regulators increasingly understand.

With this in mind, there are six key issues that regulators and companies should bear in mind.

First, **we support those regulators who have already or who are actively contemplating some more centralised research and engagement to complement company specific engagement to support their business plan decisions.** But this should not be confused with the need to embed a culture of engagement and collaboration within companies to support purposeful working including ongoing partnership working, collaboration and decision making which responds to changing consumer and community needs.

Second, and crucially, **there remains a clear place in our view for company specific groups.** Companies need to know their customers' and citizens' views and need some independent help/assurance ensuring they do this properly, and the regulator needs to be assured that they take these into account. Company specific groups understand the company's business plans, diverse needs and locality and can exercise much better challenge (including around delivery of engagement in practice) than a regional or national group on detail (though a national /regional group can, conversely, offer a more comparative picture).⁵⁸ In addition, there are a range of genuinely local issues such as community level deprivation, the aquatic environment, and on issues such as surface water and drainage, which are intensely local in their impact.

From a purposeful standpoint, **company specific groups may also have a valuable role to play in terms of assessing company culture,** and how companies approach trade-offs and 'wicked issues' along with identification of new sources of public value creation and opportunities for co-benefits – acid tests of a company's purposeful commitment.

Third, **regulators should consider whether they need to say something about the principles of utility engagement with local and sub regional elected authorities.** The landscape has changed, particularly with the increased role of directly elected mayors. Customer challenge group membership has probably not caught up with this. It isn't enough for regulators to say 'this is not for us, it is for the companies' because, for example, Ofwat already and rightly engage with bodies such as the Greater London Authority.

Fourth, we would draw a distinction between major items of spend, where regulator oversight is probably essential, and more minor items of spend where the outcomes are of particular importance to customers/stakeholders. On the latter **we would urge regulators to ensure that the space exists for companies to be empowered to adopt approaches such as deliberative approaches** with communities. Regulators may well say that this space already exists but given that baseline totex often gives little allowance for non-monetised outcomes⁵⁹ we would advocate a more flexible approach, perhaps creating a use-it-or-lose-it pot to allow for this kind of approach. We would note that if successful this may help secure one of the holy grails of regulatory practice: the creation of revealed preference values.

Fifth, there is potentially space to go further. The negotiated agreements approach adopted by the Water Industry Commission for Scotland benefits from the existence of a single water company and from close relationships with and within the devolved administration. But **there is no reason why some part of the regulatory settlement elsewhere cannot be delegated to negotiated approaches,** even if the main part of the settlement remains with a conventional price review approach.⁶⁰

Finally, there are issues of affordability and vulnerability which cut across utility sectors, and there is nothing unique in structures for stakeholder engagement in water relative to say, energy. **There is scope for more cross sectoral sharing of good practice,** homogenisation of models and research and using this to drive joined-up one stop shop approaches to stakeholder support and service delivery where this is in the public interest.

Regulators may say: this is all well and good, but companies can do this anyway. The answer would be that they can, but that they will understandably be reluctant to cede power and control over issues the regulator will hold them to account on.

3.3 Intergenerational fairness, and how to regulate for the long term

The importance of net zero and the challenge of adapting to climate change mean that addressing the tendency of the regulatory and policy process to both underinvest in the long term and to lag important developments is perhaps the most urgent issue for policy (see section 2.2.1) and regulation.

There are perhaps three main ‘problems’ here. First, the lack of agreed mechanisms for assessing what long-term issues such as net zero and climate change mean for actions which need to be undertaken in any 5-year period

(‘adaptive planning’). Second, the information needed to optimise capital maintenance. Third, the lack of a voice for the next generation, and the tendency for today’s customers to undervalue the long term.

3.3.1 Adaptive planning and structures

Perhaps the main characteristics of both net zero and climate adaptation are a combination of uncertainty about the future – in terms of the mix of technologies for net zero and how an uncertain quantum of climate change will impact on issues such as drought, flood and storminess – and long lead times for many actions.

What adaptive planning, to use the jargon, seeks to do is to identify actions which if not taken in a given period will close off potentially important options and/or render such options more expensive, while avoiding early actions which may prove to be nugatory. An important concept here is the optimal degree of ‘redundancy’: assets which will seldom be used, but which are needed to protect against extreme events (a current example would be black start electricity supply).

The Government has recently published supplementary guidance to its ‘Green Book’ on project appraisal which contains valuable advice in this area.⁶¹ Some of the main conclusions from this are:

- There is no substitute for proper futures mapping and scenario work: working solely on central scenarios will be insufficient.
- Standard net present value (NPV) based business cases alone will be insufficient, and decisions may require actions which on the face of it have suboptimal NPV. (This has important implications for business cases.)
- There is a need for a strategic approach to pilots and their funding; in some cases these need to be at production scale. And, we would add, there needs to be a clear pathway by which successful pilots can be rolled out/mainstreamed: the utility sector has at times rightly been charged with having ‘more pilots than British Airways, more visions than Mother Teresa’;

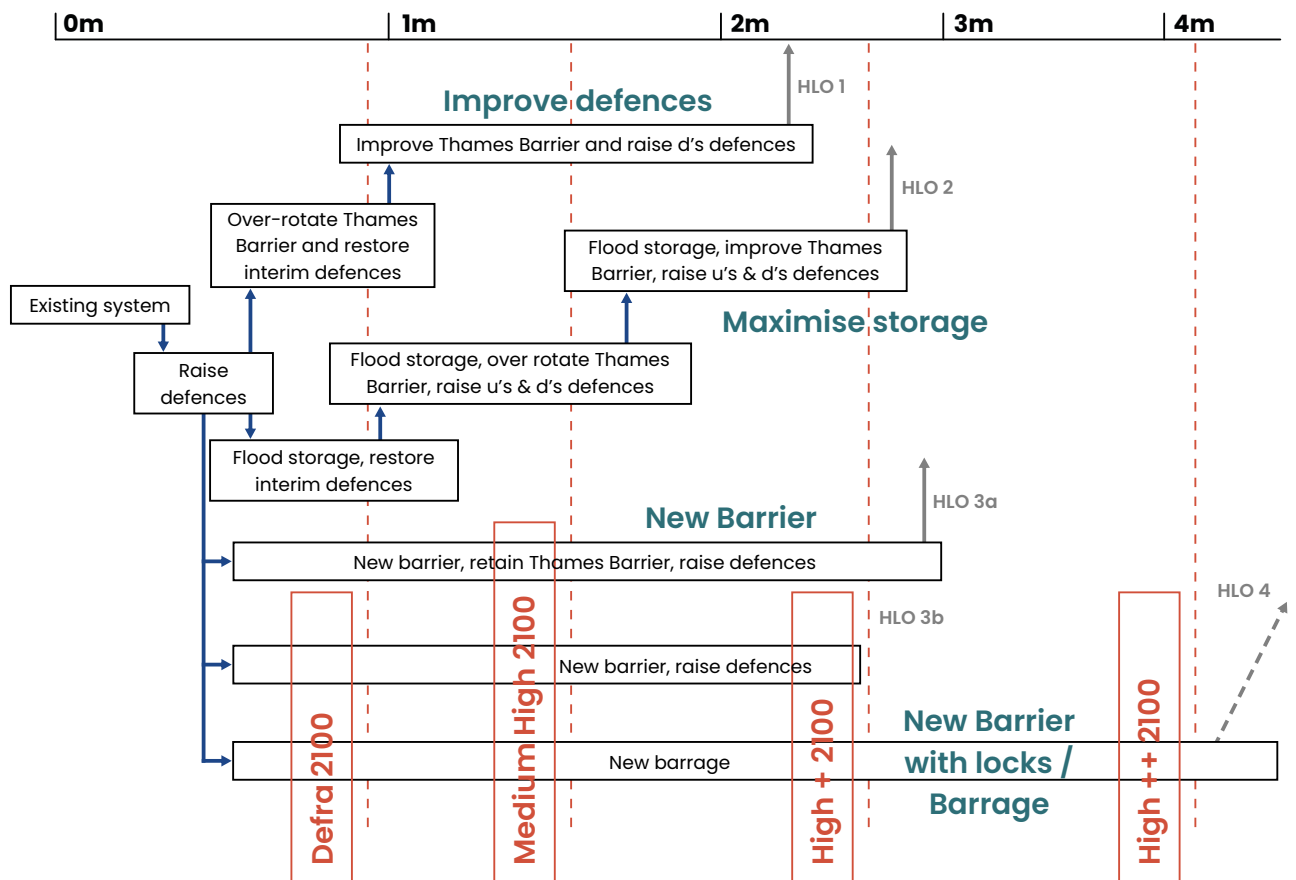
- Some key actions, such as reserving land for future development, ensuring connectivity with potential future inputs, need to be brought forward. These actions can create space and time for greater certainty to emerge about technological and climate futures.
- Other actions, where work may prove to be partially nugatory, can then be delayed. An example here might be Ofgem’s reluctance to fund repex on upgrading/ placement iron gas mains with long pay back periods given the uncertainty about the future role for natural gas and ongoing work about the adaptability of gas mains for hydrogen.

Although not formally in the guidance, we would add, based on experience of PR19 and RII0-2, that there is a tendency at present only to include in business plans such technologies (e.g. on HGV fleet) as are currently proven. This needs to change to a more forward-looking approach, based around reasonable stretch, in part because that will encourage companies and their supply chains to innovate with speed and to drive the markets.

An example of how to look forwards to future scenarios and then work back to current actions is the work to look at the future of the Thames barrier to 2100. A range of sea level rise scenarios, shown in the figure below, lead to the knowledge of possible actions which may need to be taken. Some can be brought forward – for example, reserving the land in planning on the sites where a new barrier might be required. Others can be delayed – for example, starting work on a new barrier until knowledge about the actual sea level rise and hence the optimal location has firmed up.

Thames barrier high level options and climate scenarios

Maximum sea level rise:



Note:

Each box represents one or more portfolios of responses

The arrows indicate paths for adapting options for different sea level ranges

u's = upstream. d's = downstream.

Source: Accounting for the Effects of Climate Change: Supplementary Green Book Guidance (publishing.service.gov.uk)

Taking the principles from the supplementary green book guidance, and adapting them for specific utilities, might lead to the following conclusions:

- For electricity, the trajectory to net zero is uncertain in terms of demand (although all scenarios see demand increasing) and the roll out trajectory for EV charging (and indeed the role for electricity networks). Other issues such as the connectivity for future renewables etc. are less intractable and have indeed been managed for some time. The creation of science-based targets for reductions in business carbon footprint is sensible, but this is not an exact science!
- For gas, the scale of the issues is much larger. Until the future technology for decarbonised heat is determined the future role for gas networks remains unclear. The RII0-2 approach of allowing pilots but discouraging repex with long-term returns is on the right track, but probably needs to be more centrally and strategically driven.

For water, the long-term issues are around water availability, and drought resilience; and around changing pressures on aquatic ecology. The impact of climate change is highly uncertain.

For telecoms, the extent of technological change is probably the main issue in this respect.

An important part of regulatory responses in these areas is ensuring the structures for analysis and scenarios are set up and are sufficiently wide and empowered. A change in mindset accompanying this, can lead to what has been called anticipatory regulation – something telecoms regulation is perhaps closest to at present.⁶²

3.3.2 Capital maintenance optimisation

A perennial issue in price reviews is the optimal level of capital maintenance for assets and networks. The often-repeated statistic that the mean replacement rate for UK sewers is 800 years may or may not be accurate. But there remains a strong suspicion, which we share, that approaches to capital maintenance can be ad hoc, and that there can be a tendency to push such spend right in price reviews with lower capital maintenance being rewarded as 'more efficient'.

We doubt that this issue can be sorted on a company by company basis. **We feel there is a case for a regulator driven/commissioned assessment of the state of assets** (and indeed the state of knowledge around asset condition: we know of a number of cases where telemetry is either sub optimal or simply not working!) **and the actions which would be needed to enable a more optimised approach to be devised.** The Ofgem NOMs/NARMs approach is a good start here, which could usefully be extended to water.

Ofgem's approach to Asset Management

Ofgem has consistently encouraged companies to take a long-term approach to asset management. This started back in 2002 with a survey of the asset management strategies adopted by the networks and efforts to share best practice.

In RII01 Ofgem introduced the concept of Network Output Measures (NOMs). NOMs are a way to monitor and assess the asset management outcomes that network companies deliver. They are based on tracking, for each asset, the asset health (probability of failure linked to the condition of the asset) and criticality (the impact of failure) across a broad set of asset categories. Combining these metrics provides a measure of monetised risk with companies expected to deliver a certain level of risk reduction as a part of their price control settlement.

This requires companies to both have a good understanding of the condition of their assets and also to think about the trade-offs in terms of how best to manage the overall network risk.

Material deviation from the targets can lead to a financial penalty under a NOMs incentive mechanism. The Licensees are therefore incentivised to deliver the targets, but have the flexibility to amend work programmes and to make appropriate asset management decisions that are both based on reliable asset information and in the interest of consumers.

The precise requirements varied slightly between sectors and the detailed methodologies were worked up during the RII01 price control period.

For RII02 the approach is being refined using a development of NOMs, the Network Asset Resilience Metrics (NARMs), including to take account of the long-term effect of the work the companies are funded to do (through the use of a 'cumulative discounted future probability of failure') and also to look at more granular asset categories.

Overall this approach creates a focus in the companies on tracking the condition of their assets and considering appropriate interventions across the totality of their asset base. The main challenge is around the complexity of the NARMs approach which can be hard for stakeholders to understand and be assured that adequate focus is being given to long-term considerations. Having metrics is clearly important but Ofgem needs to guard against the metrics becoming what is managed rather than the assets themselves.

Revisiting the principles of asset management as set out in ISO 55000 and potentially using this in parallel with the NARM metrics could help mitigate this risk.

3.3.3 Creating a voice for the long term

As discussed in the policy section of this Report, there is no institutionalised voice for the long term in utility regulation.

There is much that regulators, working with companies could do to address this. Much of this will require creativity, and we therefore doubt that the prescriptions below can simply be adopted across the piece as good practice. But there seem to us four areas where thinking could, at least, begin.

First, the way in which companies work with their stakeholders can be improved, and best practice drawn out: for example, a number of companies have youth panels or focus groups but the way in which input from these is treated in business plans and price review settlements could be improved and systematised.

Second, there is a literature on how to engage with customers and citizens to minimise short-term bias. In technical terms this consists of establishing the 'bequest motive' – which may entail nothing more complex than asking questions such as 'how much are you willing to pay so our children/grandchildren ...'.⁶³ Deliberative fora where

future issues are fully set out by third parties also have a clear role to play. Nesta, argues that there is a need to build constituencies for the longer term. Traditional engagement activities tend to be a snapshot of what people think and are not especially good at supporting them to imagine the future or at creating movements for change or shifting fundamental behaviours. Nesta offers some interesting approaches in their Report.⁶⁴

Third, neither regulator and company boards nor customer panels obviously include champions for the long term: individuals or groups which have a clear remit to address short-termism.

Finally, the presence of the NIC on the Ofgem RII0-2 Challenge Group aside, there is no systematic formal input into regulators from bodies which have a long-term focus – although there is obviously informal input from the CCC and the adaptation committee and Ofgem's new Net Zero Advisory Group indicates that this may be starting to be addressed at the margin (although with very few meetings a year, it's in-put may be limited, and it needs to up its game in terms of transparency).

3.4 How fixed term price reviews can move away from one-shot games and create flexibility and support purpose without undermining the need to address the fundamental market failures associated with monopolies

Since privatisation, the fixed term price review has almost become an institution in UK utilities, one which has grown largely by accretion with fresh additions (some beneficial, some more arguable in themselves) generally more than compensating for any simplifications each price review. On occasion it has led to utility company treasury departments becoming close to profit centres, and only recently has it rebalanced towards customers. Wider stakeholders often feel disenfranchised and the sheer complexity means that the process is opaque to all but regulatory cognoscenti in the regulators, the companies, the major consultancies and a few academics.

Listening to the way both regulators and companies talk about the price reviews in many cases one senses a real lack of mutual respect and it is very hard to separate reality from PR statements implicitly or explicitly designed specifically to appeal to regulators.

In our view this is a function both of system design and of cultures.

So the totality has become increasingly bureaucratic, and often antagonistic: the forthcoming review into economic

regulation may be a once in a generation opportunity to take a step back.

This section looks at two related issues around price controls: how one can introduce more flexibility – 'adaptive regulation' to use the new jargon – and how one can deescalate to secure more co-invention and move from unproductive one-shot decisions.⁶⁵

3.4.1 Adaptive regulation

Adaptive regulation seeks to move away from very inflexible settlements in price reviews which apply with few exceptions for the next 5 years. Inevitably this means that towards the end of price reviews much of the spend and activity has not kept pace with external developments.

In fact, some elements of the current set up are even more rigid. Because methodologies for price reviews are set out 2 years before the final settlement, many deliverables are in effect set 7 years before they are realised.

There is already some flexibility built into regulatory process, although this is much more marked in energy than water. Examples include volume drivers, use-it-or-lose-it allowances, and formal price review reopeners. Furthermore, Ofgem's RIIO-2 process appears to have increased this flexibility, to the extent that perhaps 1/3 of investment will be determined over the next 5 years rather than in final determination, up from perhaps 10-20% in RIIO-1.

3.4.2 Building trust

Other approaches to build trust/de-escalate regulator company tensions are less well developed. Part of the rationale for our supporting risk-based regulation and use of third-party assurance is precisely for this reason. Regulators have, to be fair, tried to find ways round some of the tension in the price reviews. Ofgem's creation of a Challenge Group to test and help companies develop business plans before they become formal regulatory documents would score in this area, as would Ofwat's creation in PR14 of an independently hosted 'portfolio of evidence' which companies can create and add to outside formal regulator/company interaction.

Annex F covers the extent and detail of such mechanisms in energy, and assesses how far the RIIO-2 approach is genuinely new (or put another way, the extent to which Ofgem have been doing an element of adaptive regulation for some time).

There are issues with adaptive regulation which need more fully working through, such as how to de-bureaucratise a series of mini price review decisions without losing such consumer and stakeholder legitimacy/engagement which is entailed in the full price review process, and how to retain incentives to innovate. Another issue is how to avoid excessive costs from having to stand up internal and supply chain resource at short notice. But **overall we fully support moves toward within price review flexibility, and consider that both Ofgem but particularly Ofwat could go further – as Annex F shows the true extent of flexibility is probably less than Ofgem have suggested and in water there is an urgent need to move beyond the system of IDOCs to something which recognises that flexibility is a positive.**

One additional tool which regulators have considered is the more explicit linking of reward in one price review to success in previous reviews/adherence to previous promises. There were steps to do this, informally in RIIO-2, but even here there is more that can be done to refine the mechanism and importantly to pre-signal intent.

We would also suggest though that there would seem to be a place for third-party moderation. On some specific issues there may well be a role here for bodies like the NIC, CCC and adaptation committee.

3.5 The culture and governance in regulators, and which regulators require of companies.

Sustainability First’s work on public purpose has identified organisational culture as being at the heart of genuinely purposeful companies. The same is true for regulators. The current movement towards purpose among the investor community gives a real urgency here: regulators need to ensure they do not inadvertently give messages to investors which overly prioritise short-term outcomes – in part to help ensure that the UK utility sector attracts the right kind of ownership: committed to long term returns and accepting and even driving purposeful approaches. The skills and diversity of thought which regulators recruit for and the behaviours and mindset of their existing staff all give powerful messages.

Ideas around ethical regulation (see above) and principles-based regulation have a clear role to play. As discussed in the chapter on policy, we consider that regulatory principles also have a key role to play here. The current principles for economic regulation are no longer fit for purpose and need to be revised in light of the sustainability challenges the sectors face. Doing so can help identify the values, norms and behaviours that are appropriate for purposeful regulation – as well as to align the interests of regulators with policy makers, and investors, companies and wider stakeholders.

A new set of sustainability principles is also needed for economic regulators to help guide work and shape their cultures.

Sustainability Principles – Strawman

Proposed principle in Sustainability First’s recent strawman	What this means for policy makers and regulators in essential services
1 The wellbeing of the next generation	Pay due regard to long-term interests, be transparent about trade-offs
2 Systems and joined-up thinking	Focus on outcomes, understand inter-dependencies and act on boundary issues
3 Collaboration	Create the conditions for partnership working and delivery of co-benefits
4 The precautionary principle and duties of care	Enshrine duty of environmental and social care in decisions to protect and enhance environmental and social interests
5 The consumer/citizen lived experience	Take account of real-life practicalities and implementation challenges
6 Ongoing change and flexibility / adaptation	Innovation to be embedded and some redundancy in the system
7 Diversity and engagement / participation	Understand and respond to varied and changing needs and ensure meaningful accountability
8 Circularity	Zero waste and emissions, and recycling of resources and learning

These Principles were set out as a strawman in Sustainability First’s recent ‘Viewpoint’ paper A question of principle? Economic policy makers and regulators need to adopt a set of sustainability principles if we are to survive and thrive in the disrupted world

Source: Sustainability First

Even with a new set of regulatory principles, regulatory culture may remain a particular challenge. Inevitably with a strong requirement for technical economic and engineering expertise, senior regulatory teams can be light on environmental, behavioural and social skills. But more widely there is an inevitable danger of a lack of diversity of thought, and an instinctive focus on hard rather than soft/flexible outcomes. Even where these perspectives exist within the organisation there is a challenge of how to ensure their views feed into price controls given the pressures the teams leading them are under.

Aligned with this is a risk also that in so far as regulators influence the skills sets among independent members of utility boards, they will have a preference for similar types of skills – perhaps with the addition of accountancy/finance skills. As leadership is key to purposeful business, this can potentially be a significant issue.

In our view regulators should assess the skill and diversity of their senior teams, and should steer companies in general, and without micromanagement, towards greater diversity of skill and experience on company boards. There is also a case for regulators to require companies to assess similar skill and cultural issues on their own senior executive teams.

The Financial Reporting Council (FRC) has a particular interest in this area and is currently carrying out further work on corporate culture. There is scope to apply this thinking to regulatory boards themselves. And an opportunity for Ofgem, Ofwat and Ofcom to do more to highlight and leverage the FRC's work on stewardship, culture and governance into the companies in the sectors that they

regulate – as indeed Ofwat did in their Board Leadership transparency and Governance principles.⁶⁶

We consider that Ofgem, Ofcom and Ofwat could do more to leverage the work of the FRC on culture and governance into the sectors that they regulate.

A final issue on regulator and corporate culture surrounds the balance between competition and collaboration. The collaborative approach to a number of issues surrounding Covid suggests to us strongly that between regulators and companies they have got this wrong in the past: something borne out by the Slaughter and May work. Companies have in the past certainly had a cultural distrust of collaboration believing erroneously or not that regulators (or the CMA) would disapprove – and also in some cases erroneously that the competition legislation was more restrictive than it really was (although we know of one example where companies had to kick back against pressure from Government on Covid because they were being asked clearly to cross this boundary). In addition the costs associated with investigating any competition issues can be disproportionate and can make companies reluctant to take any risks in this area.

We suspect that part of the issue was because regulatory pronouncements frequently sought to present competition as the answer wherever possible (which in pure economist speak it may well be) that companies had read into this more than was intended. But equally, the fact that regulatory cultures were dominated by thinking which saw competition as the answer to most questions did indeed present a fairly unequivocal message.

Photo by Mpho Mojapelo



Conclusions and recommendations

The conclusions and recommendations in this Report are divided into the following sections: policy mechanisms and approaches; regulatory approaches; and recommendations on specific issues – fairness and place, intergenerational fairness and the long-term view and bills, taxes and welfare.

Policy mechanisms and approaches

Conclusion	Recommendation	Responsible	Sector	Timeframe
Government should fundamentally review its approach as to what it takes to develop a purposeful utility sector.	A comprehensive and coherent package of measures is urgently needed to create ‘an infrastructure of trust’ and a fundamentally different culture on all sides. And Government, regulators and companies need to work hard to build safe spaces for mature discussion of ‘wicked issues.’	All	All	Fundamental
	Adopting a new set of ‘Sustainability Principles’ for economic policy and regulation can help create the appropriate values and norms for purposeful business and align the interests of Government and regulators with investors, companies and wider stakeholders.	Government and regulators	All	Fundamental
	Government should make a statement about what a purposeful utility sector might look like – e.g. in the forthcoming review of economic regulation.	Government	All	Quick
	Government should consider whether more formal regulator performance appraisal should be instigated.	Government	All	Evolutionary
	Government should further develop its net zero and fairness agenda, to cover climate change impacts.	Government	All	Fundamental
	Governmental statements in duties and Strategic Policy Statements about consumers need to be more consistently expanded to citizens.	Government	All	Quick
	Government and regulators should work together to ensure that regulator boards and senior management are, and are seen to reflect, the full range of regulatory duties. They need to contain genuine diversity of skills and of approach, thinking and culture. Appointment should, however, always be on merit.	Government, regulators	All	Evolutionary

Policy mechanisms and approaches continued

Conclusion	Recommendation	Responsible	Sector	Timeframe
Government needs to give clearer signals to regulators and companies on social and environmental issues.	Ofgem, Ofwat and Ofcom should all have net zero and resilience statutory duties.	Government	All	Quick
	Government should widen its use of Strategic Policy Statements to regulators, introduce one of these for Ofgem, and formalise their issuance c. 2 years before each price review. Various functions of these statements are suggested in following recommendations.	Government	All	Quick
	The Energy White paper and 25 Year Environment Plan need to be followed with ongoing policy statements. The climate change risk assessment is likely to require similar statements. These statements will need to be of a form which the regulators can readily give meaning to on the ground, and their framing could usefully have regard to the desirability of purposeful responses.	Government	Energy and Water	Evolutionary
	The post Brexit agenda will need to see evolution of government approaches to wider environment and health and safety legislation. There should be options to move the balance of this towards outcomes and away from process regulation.	Government	All	Evolutionary
Government needs to ensure that their asks of and incentives to different regulators are strategically joined up.	Government should bring economic, environmental and standards regulators together on a more regular and systematised basis.	Government	All	Quick
	Policy makers need urgently to identify system and common issues between utilities – e.g. the role of digital telecoms in achieving net zero – and between regulators – e.g. between HSE and Ofgem, or the Environment Agency and Ofwat – to broker interactions, where necessary amend regulatory regimes to ensure these issues are properly addressed and proactively and consistently align regulatory agendas (including those of the economic regulators and the FRC).	Government, economic regulators, HSE, FRC etc.	All	Evolutionary
	Government should ensure Strategic Policy Statements include more strategic inter regulator working. Regulators need a fundamentally more joined up approach across sectors, based on recognition and understanding of system interactions and co-resilience. The NIC could help play a role in this regard.	Government, regulators, NIC	All	Quick

Regulatory approaches

Conclusion	Recommendation	Responsible	Sector	Timeframe
Regulatory culture needs to become as purposeful as that of companies. We seriously doubt that the current degree of emphasis on econometric models and multiple targets can create enough space for companies to fully move in the purposeful direction. We need alternative approaches, in particular where there are significant societal benefits but relatively low bill impacts.	There needs to be a fundamental rebalancing, with econometrics and ODIs focused on big ticket spend and deliverables, but with much more freedom – and some spend set aside with suitable checks – to undertake local etc. initiatives coinvented with communities and stakeholders.	Government, regulators	All	Fundamental
	Ethical regulation and new sustainability principles can help in the development of more purposeful regulation.	Regulators	All	Evolutionary
	Regulators need some ‘red lines’ covering areas where they and they alone have to make the final judgement. These could include the cost of capital and the big-ticket parts of totex.	Regulators	All	Quick
	Regulators should institutionalise a significant role for third-party and risk-based assurance, concentrating instead on the things only regulators can do well, thereby deescalating at least part of the current regulator/ company tension. ISO standards, TFCD disclosure, and bodies like B Corp, have expertise which the regulators lack, and a non-confrontational assurance processes. There is a case for this to be used to create wider and fuller ‘earned autonomy’.	Regulators	All	Quick
	Third-party assurance mechanisms will need clear governance, with redress for bad faith and arrangements should, for example, a third party exit a market.	Regulators	All	Evolutionary
	The NAO and CMA need to coinvent and reinvent how they interact with regulators on the purposeful agenda, to allow regulators to adopt a more permissive approach without facing reputational damage or undue blame where properly considered innovation/experimentation does not ultimately deliver the benefits hoped for. For the NAO there are questions of how to take a longer-term and forward looking perspective and for the CMA questions around wider citizen as opposed to consumer interests and harms and the role of partnerships and collaboration.	NAO, CMA, regulators	All	Evolutionary
	Strengthen regulators’ culture of engagement in carrying out its duties e.g. adopting engagement best practice with consumers and citizens and ensuring policy teams have the expertise to engage well.	Regulators	All	Quick

Regulatory approaches continued

Conclusion	Recommendation	Responsible	Sector	Timeframe
Regulators should take those parts of company business plans which are high on social/ environmental content – particularly if hard to monetise – and relatively low on bill impacts – out of the price review process (or more specifically that part of the process which is based around comparative competition, outcome incentives and econometrics). Where done properly, community-facing approaches such as deliberative fora, local negotiated agreements and specific decisions made by groups such as Community Interest Companies are all better and more legitimate solutions for these kinds of issues.	Only do those things through formal price reviews which cannot be done well through other routes.	Regulators	All	Fundamental
	Roles of existing engagement groups may need to change: so customer challenge/engagement groups might be tasked with oversight of culture, and purposeful business agendas as much as delivery/engagement approaches. Regulators may need to take a few well-judged risks (and the NAO and CMA to create space for this).	Regulators, government, NAO	All	Fundamental
	There should remain a strong role for independent in-company level groups, although taking some issues to regional or national level is also appropriate.	Regulators	All	Quick
	On more minor items of spend where the outcomes are of particular importance to customers/stakeholders, regulators should ensure that the space exists for companies to be empowered to adopt approaches such as deliberative approaches with communities, perhaps creating a use-it-or-lose-it pot to allow for this kind of approach.	Regulators	All	Quick
	There is potentially space to go further. There is no reason why some part of the regulatory settlement cannot be delegated to negotiated approaches, even if the main part of the settlement remains with a conventional price review approach.	Regulators	All	Fundamental
	There are issues of affordability and vulnerability which cut across utility sectors, and there is nothing unique in structures for stakeholder engagement in water relative to say, energy. There is scope for more cross sectoral sharing of good practice and homogenisation of models and research.	Regulators, companies	All	Evolutionary

Specific Issues – Fairness and place

Conclusion	Recommendation	Responsible	Sector	Timeframe
Government and regulators need to urgently address questions of how to interact/facilitate interaction with community and local/sub regional democratic process and with the place agenda.	All parties need a significant reappraisal of the role of place, local democracy and communities in utilities, particularly where these are place-based anchor institutions in a local area.	All	All	Fundamental
	There is scope for a piece of freestanding government sponsored work (perhaps by the NIC) looking dispassionately at the regional and sub regional balance of spend on utility infrastructure.	Government	All	Quick
	There has not, to our knowledge been any government assessment of the role of utilities in place, nor guidance to regulators on what should be encouraged. We would urge government to bring together the regulatory departments (BEIS, Defra and DCMS, and MHCLG) to take this forward.	Government	All	Quick
	Government should widen its use of Strategic Policy Statements to regulators including to require improved liaison with local authorities and directly elected mayors.	Government	All	Quick
	In advising on the kind of consumer/stakeholder groups they would like to see/are willing to accept evidence from, regulators need to have regard to the local as well as regional or national impacts and work which companies have and accept the case for engagement at this level is necessary and should inform price review outcomes.	Regulators	All	Evolutionary
	Regulators should consider whether they need to say something about the principles of utility engagement with local and sub regional elected authorities.	Regulators	All	Quick
	Telecoms has already encouraged the creation of community telecoms approaches. We can see real merit in encouragement from the regulator for companies to look at deliberative fora at community level – ceding a degree of control over local issues to local communities. We can also see merit in regulators examining the potential role for Community Interest Companies.	Regulators	Water, energy	Evolutionary

Specific Issues – Intergenerational fairness and the long-term view

Conclusion	Recommendation	Responsible	Sector	Timeframe
The regulatory process needs a clear voice for the long term.	Government should widen its use of Strategic Policy Statements to regulators to include the creation of a formal role in price reviews to ensure that long-term issues are not deferred unnecessarily (perhaps through the NIC and/or CCC/adaptation subcommittee).	Government	All	Quick
	We consider that lessons and good practice should be learned more widely across the UK for policy and regulation in utilities from the experience of the Future Generations Act in Wales and the Scottish Government's National Performance Framework in terms of crosscutting requirements for intergeneration equity	Government	All	Fundamental
	Changes to statutory duties (for example with regard to resilience and/or net zero) can require regulators to take into account intergenerational aspects of specific outcomes, but do not extend to general intergenerational equity. This should be remedied.	Government	All	Quick
	Government could add a formal role in the regulatory process for an organisation such as the NIC or the new environment body to act as a champion of future generations. This could involve giving it an assurance role with regard to the price review process, for example.	Government	All	Quick
	Government can walk the talk, stress the importance of fairness and inter-generational equity in speeches etc.	Government	All	Quick
	We support establishing a formal role for/input from a citizens' assembly on net zero and utility policy and practice.	Government	All	Fundamental
	The way in which companies work with their stakeholders can be improved, and best practice drawn out. Deliberative fora, where future issues are fully set out by third parties, have a clear role to play. A number of companies have youth panels or focus groups but approaches generally could be further developed and the way in which input from these is treated in business plans and price review settlements could be systematised.	Companies, regulators	All	Quick
	There needs to be a systematic input into regulators from bodies which have a long-term focus.	Government, regulators	All	Evolutionary

Specific Issues – Intergenerational fairness and the long-term view continued

Conclusion	Recommendation	Responsible	Sector	Timeframe
Intergenerational issues and pathways to net zero and adaptation cannot be conducted principally through 5-year price reviews: the incentives to put difficult decisions off have time and again been shown to be simply too great. We need a fundamentally new process of 'adaptive planning'.	There is no substitute for proper futures mapping and scenario work: working solely on central scenarios will be insufficient.	All	All	Evolutionary
	Standard net present value (NPV) based business cases alone will be insufficient, and decisions may require actions which on the face of it have suboptimal NPV.	Regulators, companies	All	Evolutionary
	There is a need for a strategic approach to innovation pilots and more joined up funding; in some cases these need to be at production scale. And there needs to be a clear pathway by which successful pilots can be rolled out/mainstreamed.	Government, regulators	All	Evolutionary
	Some key actions, such as reserving land for future development, ensuring connectivity with potential future inputs, need to be brought forward. Other actions, where work may prove to be nugatory, can then be delayed.	Government, regulators	All	Quick
	There is a tendency at present only to include in business plans such technologies (e.g. on HGV fleet) as are currently proven. This needs to change to a more forward looking approach, based around reasonable stretch.	Regulators	All	Evolutionary
	We fully support moves toward within price review flexibility, and consider that both Ofgem but particularly Ofwat could go further.	Regulators	All, especially water	Evolutionary

Specific Issues – Bills, taxes and welfare

Conclusion	Recommendation	Responsible	Sector	Timeframe
A wider debate about fairness and utilities, and the balance between the welfare state and utility company support for vulnerability and deprivation, is urgently needed.	Government needs to urgently clarify how it sees the balance going forwards between the welfare system and utility company support for people in fuel and water poverty and who cannot afford to access broadband, now and in the future. We do not think the current approach is sufficient even for the short-term impact of Covid-19 and the resulting recession, let alone for the fundamental impacts of climate change and net zero.	Government	All	Fundamental
	The debate should include the balance between publicly/taxpayer funded utility infrastructure and infrastructure funded from bills.	Government	All	Evolutionary

Annexes

Statutory duties and Strategic Policy Statements in utilities⁶⁷

Statutory duties

Ofwat

The Secretary of State's and Ofwat's duties are set out in section 2 WIA. Their principal duties are to:

- (i) 'Further the consumer objective', i.e. to protect the interests of consumers, including the disabled, chronically sick, elderly, those with low incomes, those living in rural areas, and private households generally
- (ii) Secure that water companies carry out their duties and functions
- (iii) Secure that water companies are able to finance themselves
- (iv) Secure long-term resilience of water supply, taking account of environmental pressures, population growth and changes in consumer behaviour, and promoting long-term planning, investment, sustainability, efficiency and demand reduction. This 'resilience' objective was inserted into Ofwat's statutory objectives by the Water Act 2014.

Subject to these duties, they are also required to act to:

- (i) Promote economy and efficiency in the industry
- (ii) Ensure non-discrimination
- (iii) Ensure that consumer rights are protected, especially with regard to land transactions and non-water related activities of water companies
- (iv) Contribute to the achievement of sustainable development

They are further required to have regard to the principles of best regulatory practice, including transparency, accountability and proportionality.

Ofwat is also required to act in accordance with the statutory strategic policy statements published by DEFRA and the Welsh Government under section 2A WIA.

Section 3 WIA imposes obligations on Ofwat, the Secretary of State and relevant water undertakers to comply with several wide-ranging general environmental and recreational requirements when formulating or considering any proposals relating to any functions of a relevant water undertaker.

Ofgem

Its principal objective – which it shares with the Secretary of State for BEIS ('Secretary of State') – is to protect the interests of existing and future gas consumers (in relation to gas conveyed through pipelines), and electricity consumers (in relation to electricity conveyed by distribution systems or transmission systems). The gas and electricity industries are governed by the Gas Act 1986 ('GA 1986') and the Electricity Act 1989 ('EA 1989'), respectively (referred to together in this note as the 'Gas and Electricity Acts').

Both the GA 1986 and the EA 1989 specify that, for the purposes of the principal objective of the Secretary of State and Ofgem/GEMA, consumers' interests are to be considered as a whole, including:

- (i) Their interests in the reduction of targeted greenhouse gases through gas-supply emissions (in respect of gas customers) and electricity-supply emissions (in relation to electricity customers)
- (ii) Their interests in the security of supply of gas and electricity to gas and electricity customers, respectively
- (iii) Their interests in the fulfilment by GEMA when carrying out its objectives of certain objectives set out in EU gas and electricity directives.

In performing its duties GEMA must have regard to the need to:

- (i) Secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met and that all reasonable demands for electricity are met

- (ii) Secure that licence holders are able to finance the activities which are the subject of obligations on them; and
- (iii) Contribute to the achievement of sustainable development.

Further, when carrying out its functions, GEMA must have regard to:

- (i) The principles under which regulatory activities should be transparent, accountable, proportionate, consistent, and targeted only at cases in which action is needed
- (ii) Any other principles appearing to represent the best regulatory practice.

GEMA must also have regard to the interests of customers in vulnerable situations when performing its role.

GEMA must carry out its functions in the manner it considers is best calculated to secure a diverse and viable long-term energy supply, and shall, in carrying out those functions, have regard to the effect on the environment.

In addition to its statutory duties, GEMA must also have regard to the Government's Social and Environmental Guidance ('SEG') when fulfilling its functions.

Ofgem is also subject to a number of statutory Reporting obligations, and also publishes a number of discretionary Reports and metrics.

Ofcom

Under the Communications Act 2003 (the 'Communications Act'), the Secretary of State has the power to publish statements of the Government's strategic priorities for telecommunications, and Ofcom has a statutory duty to have regard to any such statements in carrying out its functions and must publish an annual review of its progress against such priorities.

The Communications Act provides that Ofcom has two over-arching duties:

- (i) To further the interests of citizens in relation to communications matters
- (ii) To further the interests of consumers in relevant markets, where appropriate by promoting competition.

These duties underpin Ofcom's more specific statutory objectives, which include securing the optimal use of the electromagnetic spectrum, ensuring the availability of a wide range of electronic communication, maintaining sufficient media plurality, and protecting the quality and diversity of broadcast content. Ofcom's duties are unusual, when compared to other regulators, in that they are not limited to 'consumer' interests but also refer to the interests of 'citizens'.

In achieving these outcomes, Ofcom must have regard to a wide range of factors including the desirability of promoting competition in relevant markets, the vulnerability of children and others whose circumstances appear to Ofcom to put them in need of special protection, and the opinions of consumers in relevant markets and members of the public generally.

When discharging functions that derive from EU obligations Ofcom is also required to take into account a further six principles (which give effect, amongst other things, to Article 8 of the Framework Directive) which cover:

- (i) Promotion of competition
- (ii) The development of the European internal market
- (iii) The interests of EU citizens
- (iv) Neutrality between different forms of networks and services
- (v) Encouraging interoperability of services and network access
- (vi) Encouraging compliance with European standards for service interoperability and freedom of choice for consumers.

Strategic Policy Statements

Water⁶⁸

Priorities for Ofwat and the water industry in pursuit of an industry that works for everyone

Securing long-term resilience

- **Priority:** Ofwat should challenge the water sector to plan, invest and operate to meet the needs of current and future customers, in a way which offers best value for money over the long term.
- **Water Supply** Objective: Ofwat should further a reduction in the long-term risk to water-supply resilience from drought and other factors, including through new supply solutions, demand management and increased water trading.
- **Wastewater** Objective: Ofwat should challenge water companies to improve planning and investment to meet the wastewater needs of current and future customers.
- **Resilience against flooding and wider risks** Objective: Ofwat should challenge water companies to make sure that they assess the resilience of their system and infrastructure against the full range of potential hazards and threats and take proportionate steps to improve resilience where requires.
- **The environment** Ofwat should challenge companies to further the resilience of ecosystems that underpin water and wastewater systems, by encouraging the sustainable use of natural capital and by encouraging water companies to have appropriate regard to the wider costs and benefits to the economy, society, and the environment.
- **Housing**

Protecting customers

- **Priority:** Ofwat should continue to challenge the water sector to go further to identify and meet the needs of customers who are struggling to afford their charges.
- **Household customers** Objective: Ofwat should continue to challenge companies to improve the availability, quality, promotion and uptake of support to low income and other vulnerable household customers
- **Business customers** Objective: Ofwat should promote an enhanced focus by water companies on the needs of small business customers that may struggle to access the best deals.

What this means for the evolution of markets in the water sector, inc. expectation that future reforms seek to address these priorities.

- **Priority:** Ofwat should promote markets to drive innovation and achieve efficiencies in a way that takes account of the need further: (i) the long-term resilience of water and wastewater systems and services; and / or (ii) the protection of vulnerable customers.

Telecommunications⁶⁹

- Ofcom must have regard to the statement when exercising its regulatory functions.

1. World-class digital infrastructure

- Full-fibre connectivity
- Effective access to passive infrastructure in telecoms and other utilities
- Stable and long-term regulation that encourages network investment
- An 'outside in' approach to deployment
- Switchover process
- Mobile and 5G connectivity
- Spectrum management
- Convergence between full fibre and 5G network

2. Furthering the interests of telecoms consumers

Government strategic priorities for current and future telecoms consumers are to:

- Tackle harmful industry practices and improve the support available to vulnerable consumers, who can pay more than others.
- Address the difficulties that consumers experience in navigating the communications market by giving them the right data, information and support to boost their engagement.
- Remove barriers that consumers face to switching products and services, and ensure that all consumers get better outcomes, even if they are not actively searching for the best deal all of the time.
- Improve the overall quality of service for telecoms consumers.

3. Secure and resilient telecoms infrastructure

Ofcom are responsible for ensuring that network and service providers take appropriate measure to manage cyber security risks, including to the confidentiality of communications and data, the integrity of networks and services, and network availability.

4. Postal services

Government put framework in place for Ofcom to deliver primary objective to secure the provision of a financially sustainable and efficiency universal postal service in the UK.

Energy

While there is provision in legislation for BEIS to set out its strategy priorities, it hasn't ever done so. The ability for BEIS to do so is set out in paragraph 3.5 in the **Framework Document between BEIS and Ofgem**: 'When carrying out its functions, Ofgem is required under section 132 of the **Energy Act 2013** to have regard to any strategic priorities set out in a strategy and policy statement designated by the Secretary of State under section 131 of that Act'. Section 131 of the Energy Act says: 'The Secretary of State may designate a statement as the strategy and policy statement for the purposes of this Part if the requirements set out in section 135 are satisfied (consultation and Parliamentary procedural requirements).'

Welsh and Scottish approaches to the long term

Approach in Wales

In Wales, the **Wellbeing of Future Generations (Wales) Act 2015** requires public bodies in Wales 'to do things in pursuit of the economic, social, environmental and cultural wellbeing of Wales in a way that accords with the sustainable development principle'. The sustainable development principle means that bodies must act in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs. Public bodies in Wales are required to think about the long-term impact of their decisions.

The Act puts in place seven wellbeing goals that public bodies must achieve: a prosperous Wales, a reliance Wales, a more equal Wales, a healthier Wales, a Wales of cohesive communities, a Wales of vibrant culture and thriving Welsh language, and a globally responsible Wales. The Act establishes the office of Future Generations Commissioner for Wales, whose role is to be the guardian of future generations, helping public bodies and policymakers in Wales think about the long-term impact of decisions and to monitor and assess the extent to which wellbeing objectives set by public bodies are being met.

The Act also establishes Public Services Boards (PSBs) for each local authority area in Wales. Each Public Services Board must prepare and publish a local wellbeing plan setting out its local objectives and the proposed steps to meet them. The Future Generations Act has created momentum and started a national conversation about 'the Wales we want'. Some climate assemblies in Wales have started using the Act as a framework. One tangible example of the Act being put into practice, in 2017, was the rejection of a proposal to build a £1.1bn M4 relief road for failing to set out how it would meet the needs of future generations.

However, the Act has also faced a number of barriers, including economic barriers and initial cynicism from officials. A key challenge it continues to face is how to address cultural and behavioural change within organisations, which is a gradual process and difficult to measure.

One weakness in the implementation of the Act has been a lack of connectedness between national and local goals. As well as legislation, buy-in from local communities is needed to own the Act and put it into practice. Communities need to be put at its heart and build momentum from the bottom up. In order to do this, a common framework is needed to support the development of local plans and NGOs promoting the act at a local level. Utilities sectors aren't yet being talked about in the context of the Act. This is largely because the legal requirements don't apply in the UK.

Approach in Scotland

Scotland was the first of the devolved legislatures to put wellbeing at the heart of its approach to governance through the **National Performance Framework (NPF)**. Scotland's NPF was launched in 2007 and put into law in 2015 in the **Community Empowerment (Scotland) Act 2015**. The NPF is Scotland's way of localising the UN Sustainable Development Goals (SDGs). Its aim is to encourage transformational social, economic and environmental change to achieve increased wellbeing and a more peaceful and prosperous future, recognising their assets and relevance to future generations as well as their use and distribution of resources.

The Framework set out eleven national outcomes. The outcome to 'value, enjoy, protect and enhance the environment' makes reference to the Scottish government's commitment to environmental justice and preserving planetary resources for future generations.

This Annex summarises some of the work on ethical regulation by Christopher Hodges, Professor of Justice Systems, and head of the Swiss Re Research Programme on Civil Justice Systems, Centre for Socio-Legal Studies, University of Oxford. Fellow of Wolfson College.

Prof. Christopher Hodges has written extensively on the concept of 'ethical business regulation' (EBR). Hodges draws on behavioural science and psychology to support his argument that new approaches to regulation are needed: approaches that move away from a focus on deterrence towards those built on values of ethics and trust.

Behavioural science

Hodges draws on behavioural science in analysing regulatory approaches. He argues that regulation needs to take an evidence-based approach to how people behave; decisions are made people, not organisations. The structure, objectives, culture, and incentives under which people operate can also affect how they make decisions.

As such, behavioural science has observed why people observe or break rules. Findings have shown that people will voluntarily observe a rule where that rule is made, applied and enforced fairly. Deterrence sanctions do not affect future behaviour, especially if the brain thinks the risk of being caught is low. Hodges therefore argues that a regulatory approach based entirely on ensuring compliance will fail. A deterrence approach to regulation engenders a culture of suspicion and control through fear, and erodes trust. Instead, Hodges proposes Ethical Business Regulation.

Ethical Business Regulation

Ethical Business regulation (EBR) is an open and collaborative approach between businesses, their stakeholders, and public officials, based on a shared ethical approach focussed on outcomes and driving transparency and trust. Companies perform best if they have clear ethical values and behave in accordance those values, involving all stakeholders. EBR is built on five core components:

1. The regulatory system will be most effective in affecting the behaviour of individuals where it supports ethical and fair behaviour.
 - The regulatory system should adopt the right incentives and actions that don't hinder ethical behaviour and influence the culture of an organisation. This should be an ethical culture based on values of mutual engagement, respect, trust, learning, and constant improvement.
2. Businesses should demonstrate constant evidence of their commitment to fair and ethical behaviour that will support the trust of regulators, as well as employees, customers and stakeholders.
 - The system needs to build trust between stakeholders through established core values shared by all. Businesses should provide evidence of trust, such as deep and consistent adherence to ethical principles, and businesses that demonstrate they can be trusted on consistent basis should be treated with respect by regulators. Regulators need to be clear about what evidence is needed and make incentives for business to adopt ethical practice.
3. A blame culture will inhibit learning and an ethical culture – need an open collaborative culture.
 - Transparency is important and when issues or errors occur, and the focus needs to shift to what were causes of that issue and how could risk be reduced in the future. How an organisation responds to adverse events is critical.
4. Regulatory systems need to be based on collaboration if they are to support a technical regime, as well as maximising performance, compliance and innovation.
 - EBR facilitates effective relationships between businesses, regulators, and their stakeholders through open and honest communication.
5. Where people break the rules, people expect to see a proportionate response.
 - There should be a focus on fairness and what is 'fair' should be decided through open, informed engagement. Responses to unethical actions must be proportionate.

Principle-Based Approach

EBR takes a principle-based approach that aims to be forward-looking and encourage people to take responsibility for the culture and their own organisation. This approach should encompass broad principles, rather than 'one size fits all'. Standardised approaches could lead to tick-box compliance approach to culture, which needs to be avoided.

Examples

- **The Civil Aviation sector** has recognised that fostering an open and just culture is critical for regulating safety in the sector. An open, no blame culture encourages voluntary reporting, as it was found that the imposition of sanctions for not reporting in fact led to less reporting. The concept of 'compliance' has been replaced by 'performance'.
- **Ofgem:** In his 2016 paper 'Ethical Business Regulation: Growing Empirical Evidence', Hodges refers to Ofgem as an example of an economic regulator that over time has broadened its approach. Hodges highlights Ofgem's dialogue with operators through the Challenge Panel as progress that has been welcomed by some companies. Hodges also singles out Northern Gas Networks as an organisation that has moved from being status-oriented to with that's customer-oriented and safety-focused.
- **The Scottish Government** has indicated its intention to include EBR as consistent core policy in delivering its political goal of a fair Scotland.

Water Industry Commission for Scotland (WICS)

In SRC21, WICS have worked with their stakeholders to put in place a new regulatory approach, adopting the principles of Ethical Business Regulation (EBR). According to WICS, this approach focuses on establishing the best outcomes for customers, communities and the environment through honest and open conversations about the future challenges for the Scottish water industry.

WICS have published a series of videos with their CEO Alan Sutherland and Prof Christopher Hodges on their implementation of EBR. WICS have said that EBR has allowed them to look beyond the short term, which is especially important in the context of asset replacement and climate change. EBR provides an approach for effective discussion about bridging the short and long term and addressing the social aspirations of communities. WICS have said that EBR has opened up completely different conversations with their stakeholders – conversations that are more open, active, multilateral, and substantive. They now have an ongoing relationship that is based on trust and evidence, through raising issues when they arise, discussing them, and finding resolutions that are fair.

This Annex summarises some of the thinking in our forthcoming Discussion Paper on stakeholder engagement and the public interest in essential services.

It is always easier to start with what we have – we do it because it is simpler, because incremental change is pragmatic, because we are time poor, because we operate in practice in organisations with constrained vires that don't reflect the real world. Many decision makers don't really get engagement, or perhaps even trust the average consumer to have the skills or intelligence to make a good decision. Maybe it is arrogance, maybe it is justified – indeed many customers say they want expert third parties to represent them especially on complex issues.

The challenge for all of us involved in policy making is to approach this with a genuinely open mind. To step outside of our existing paradigms and to try and imagine what might be done differently, better, in a way that is fit for the future. This involves having a clear vision of the kind of essential services we want and the weaknesses of the current framework. If you are a regulator or work for government we encourage you to think outside of the five-year monopoly price control cycle, with all its strengths and failings, and to genuinely reflect on where wider stakeholders and customers might have more expertise or legitimacy to decide. Or maybe, on the other hand, engagement advocates should accept that democratisation of decision making on complex issues, in a busy world, where most people really aren't that interested, just isn't practical. That is one of the reasons why we have consumer bodies and regulators after all.

Reflections

1. Customer and wider stakeholder engagement is becoming more not less important in our rapidly changing world. This includes to build trust and legitimacy, deliver cross sector solutions to complex whole-system problems and to recognise that customers will increasingly need to become agents of change themselves e.g. be part of demand side solutions. Despite the challenges to date, now is not the time to roll back on a focus on stakeholder engagement.
2. However, stakeholders are often time poor, increasingly engagement weary and often lack the resource to engage effectively. Others may face barriers to getting their voice heard. Many customers also want the regulator or representatives to act on their behalf on complex issues while some want to engage more directly themselves without the 'middle women'. The extent to which stakeholders feel their views make a difference can influence levels of engagement.
3. Companies need to continue to engage and put customers at the heart of decision making. Despite regulatory incentives and use of customer groups, many companies have not yet reached 'engagement maturity levels' where they have the skills, expertise, 'infrastructure' and culture to undertake high-quality robust engagement on a day to day basis (possible exception being customer service). When there are wider resource challenges engagement can be squeezed. A continued focus on this area in the development of any future price control methodology is therefore still needed.
4. Regulators don't yet trust companies to engage in a robust and independent way, often with good reason given their track records and engagement maturity levels, but also because they themselves lack confidence and understanding in this area. Company level groups such as Consumer Challenge Groups and Consumer Engagement Groups, while they have improved the robustness of research through their challenge, are limited in their ability to provide regulators with suitable 'assurance' due to the lack of comparability of their scrutiny approaches and differences in their perceptions of what good looks like among other reasons.
5. Beyond, specialist units, (though to varying degrees as some are noticeably better than others) standards and economic regulators and government have a weak culture of engagement and at some level cynicism around the benefits of engaging/trust in customers to make good decisions. They risk coming across as arrogant and out of touch with customers, and new digital and participatory means of engagement. Regulators and government need to consider how they develop a culture of engagement within their organisations and build skills and understanding in this area.
6. Regulators, government and companies don't always know what good practice looks like, and beyond pilot programmes can be poor at embedding innovative and good practice engagement. Few organisations are really using the power of technology to directly reach a broader range of stakeholders in a timely way despite the potential. Delivery of research programmes, in particular framing can be weak. This is not always helped by a limited number of established old fashioned research providers who have had dominated the market.
7. Engagement to date has resulted in company business plans being better aligned to customer and community priorities but to some extent they still remain a reflection of the questions asked of stakeholders by companies and so are self-selected. Perhaps best reflected by the fact that in the recent Ofgem R10-2 price review, only two

Gas Distribution Networks proposed a street works performance commitment but this would clearly be popular with all. The limitations of engagement are therefore far too apparent. However, this is still better than the alternatives.

8. There is a tension – on the one hand regulators have encouraged companies to become more consumer centric, but on the other they have not committed to genuinely listening to those views that come from that engagement. Overturning approaches co-designed with communities (even if for legitimate reasons due to concerns about the quality of engagement) undermines stakeholders trust in the system and willingness to engage. Regulators need to be clear up front what they will need to have confidence in customer views and when and where they will and won't listen.
9. To address this a single group should review the engagement performance of all companies in a given sector in a price review, and possibly more broadly (and potentially cross sector) to ensure a consistent approach and comparability. To do this well would likely be a full-time role for those members. This would involve developing a common understanding of what good engagement looks like (not currently agreed). The key criteria could be decided by independent experts and relevant advocates in consultation with companies. This should include a review of the delivery of engagement in practice (a key gap in the current process led assessment approach).
10. Membership of any nominated assurance body is critical. Any group needs to include a genuine diversity of perspectives, not just retired 'great and the good' or the usual engagement suspects, but experts and innovative thinkers with live, up to date knowledge of both the sector and engagement. To ensure independence these individuals should not be directly funded by the companies they challenge and should be vetted to ensure they are genuinely impartial. They must have the confidence of the regulator.
11. A number of companies have mooted the potential for some kind of negotiated settlement on all (excluding economic efficiency and financing) or part of the business plan or on ongoing decisions so that parties are not locked into resource heavy, cumbersome, unresponsive, five-year price control prices. This is feasible but there are two key challenges to this – the regulator trusting companies enough to cede control to the company and its communities to make decisions, and regulatory culture, skills and resourcing. To work, it would be critical for the regulator to play a hands-on role and have the expertise and time to do so. This would be harder where there are more companies in the sector e.g. directly overseeing engagement so that customers and stakeholders have access to full and balanced information; observing engagement so they can hear first hand the discussions. This would be quite a shift culturally. This would be consistent with the public purpose agenda.
12. There are some areas where cross sector solutions are clearly needed and the regulator would do well to cede control e.g. on affordability. Thus enabling companies to work together with communities with their oversight. Ofwat, Ofgem, Ofcom could collectively approach this e.g. the Thriving Community Partnership approach by Yarra Valley Water in Australia.
13. There are clearly regional variations in views and regulators and decisions makers need to consider to what extent they are genuinely willing to accept those differences. This would require a shift away from a reliance on comparative regulation.
14. There are clearly some areas where customers or stakeholders are better placed to know what they want than the economic unrepresentative regulator e.g. customer service. Companies could propose areas for piloting more deliberative approaches as part of a sandbox approach. The best performing companies could be given the privilege of doing this, a reward as part of a lighter-touch regulation but in water it would still require CCW and regulatory oversight of some kind (either directly or to a trusted third party). These could act as pilots.
15. Some engagement should also be done centrally by the regulator or government directly, to enable comparability and give confidence in findings, but care must be taken not to undermine progress to date and to ensure companies continue on their pathway of embedding engagement, alongside this. i.e. that the regulator does not get between the company and its customers, leading companies to become increasingly regulatory led. In particular on any common performance areas. A debate is needed on to what extent we are comfortable with a postcode lottery of service.
16. Government needs to hold national level debates on a handful of key cross sector issues with cumulative impacts. These include the role of utility companies in terms of the provision of wider affordability, social and environmental goals; how these are funded (i.e. bills, bills within or across region, state, company) and intergenerational costs. These need to be organised centrally to give government and regulators confidence in the findings and enable comparability to highlight genuine regional differences. There will also be some areas where companies or government decide they won't listen to customers because of the wider societal interests of action. These are red lines to set in advance.

Details of some relevant standards and third-party assurance approaches

This Annex summarises some of the standards and third-party assurance approaches that were reviewed in our Discussion Paper [Sustainability Metrics in Public Utilities](#).

B Corporation

B Corporation is a private certification issued to for-profit companies by B Lab, a global non-profit organisation. To date over 3,000 companies have achieved certification in over 70 countries. To be certified, companies must receive a minimum score on 'a rigorous assessment of a company's impact on its workers, customers, community, and environment' – the assessment tool is free on the Bcorp website – amend company governing documents, and re-certify every three years.

Although certification to date has been mainly in the food, third sector, consulting and finance areas, there is increasing interest in utilities. Some retail energy (e.g. Bulb) and suppliers (e.g. in the storage and renewables areas) have already achieved certification.

Initiatives such as the B corporation movement and 'impact investing' are encouraging investors and companies to place more emphasis on long-term factors. These initiatives, however, are still relatively small scale.

World Benchmarking Alliance

The World Benchmarking Alliance (WBA) seeks to generate a movement around increasing the private sectors' impact towards a sustainable future for all, based upon the UN Sustainable Development Goals (SDGs).

Aviva played a leading role in establishing the Alliance and in the UK it now also includes organisation such as BiTC, Oxford University, and Cambridge University Institute for Sustainable Leadership, as well as PWC. It argues that there needs to be real change in the way that corporate impacts are measured.

BSI (British Standards Institution)

BSI publishes thousands of standards. Standards are a voluntary way for organisations to follow good practice and work more effectively. Standards are not regulation and following a standard does not necessarily guarantee compliance. Standards can be further supported by certification.

Companies use standards to reduce risk, cut costs, win more business, and grow more quickly. In uncertain times, standards can help restore confidence by allowing businesses to demonstrate operational performance. Standards can provide prospective investors, partners, and stakeholders with recognised benchmarks of organisational quality.

BSI provides information for the utilities sector such as quality management systems, product specifications and documentation and measurement processes. BSI is also leading the standards programme for the Energy Smart Appliances.

BSI Standards and Sustainability

BSI supports business become more sustainably by identifying and managing the business's impact on the environment and community or showcase its commitment to reaching the UN SDGs.

BSI's Sustainability Portfolio has three key areas of focus:

1. *Operational resilience* – including retaining motivated and productive employees; business ethics, employee relations, diversity and inclusion, human rights, and modern slavery; reducing waste, pollution and emissions; and wider context of UN SDGs
2. *Information resilience* – including data security, efficiency of models, leveraging IT for improvement etc.
3. *Supply chain resilience* – including anticipating global shifts in strategy and information visions for sustainable sourcing; and managing supply chains and enhancing transparency.

BSI has published a number of standards related to sustainability. These include: Circular economy; Climate change; Energy management; Environmental management; GHG management; Pollution management; Sustainable finance; Waste management; Water management; Health, safety and wellbeing; Human rights and labour practices; Business ethics; Governance and risk management; Sustainable procurement; Sustainable events; Sustainable Cities and Communities; Adaptation to climate change; and others.

Spotlight on a couple of sustainability-related BSI standards:

- Guidance on Social Responsibility (ISO 26000)
 - This standard defines 'social responsibility' as an organisation's legal and voluntary duty to consider its social and environmental impact of its decisions and activities.
 - International recommendations for making organisation more socially responsible, including guidance for building and delivering a long-term social responsibility strategy.
 - Covers working practices, environmental policies, sustainable development, and communities impacted.
- Social Accountability (Sa8000)
 - This is the most widely recognised global standard for managing human rights in the workplace, to ensure that minimum standards are upheld and ensure that workers are getting a fair deal.

Consumer Interest

BSI is supported by an independent network of volunteer trained to represent the UK consumer voice in standards: The Consumer and Public Interest Network (CPIN). CPIN plays a role in ensuring ethical behaviour is built into standards, including social and economic justice, sustainability issues, and taking into account the needs of vulnerable consumers. CPIN's five priority areas are: consumer safety, consumer vulnerability, digital, services, and sustainability. The sustainability component covers five aspects: social responsibility, recycling, circular economy, ethical claims, and sustainable tourism.

(Sources: *Ethics in Standards*, *BSI Sustainability Portfolio*, *BSI General Brochure*)

ISO (International Organisation for Standardisation)

ISO is worldwide federation of national standards bodies from 140 countries. BSI plays an integral role with the ISO in shaping international standards, in collaboration with other global and regional standards organisations.

Other international standards-making partners:

- Commonwealth Standards Network (CSN)
- European Committee for Standardisation (CEN)
- European Committee for Electrotechnical Standardisation (CENELEC)
- International Electrotechnical Commission (IEC)
- European Telecommunications Standards Institute (ETSI)

BiTC (Business in the Community)

BiTC convenes a network of purposeful leaders to share insight, expertise, and create innovative programmes that deliver impact.

BiTC offers a Responsibly Business Tracker®, a measurement tool available to BiTC members. The tracker enables an assessment of the performance of a responsibly business by tracking progress against BiTC's Responsible Business Map™. This map was built on the UN's SDGs. The Tracker offers: benchmarking against sector peers and overall cohort; gap analysis in responsible business activities; and the opportunity or recognition of leading practice.

(Source: *Business in the Community*)

Case study: Anglian Water's changes to its Articles of Association and new BSI Publicly Accessible Specification on purpose

In July 2019, Anglian Water amended its Articles of Association (AoA) to ensure that the purpose of the company and the corresponding obligations of directors are formally recorded in the company's legal constitution. The purpose of the company is to conduct its business and operations for the benefit of members as a whole, while delivering long-term value for its customers, the region and the communities it serves and seeking positive outcomes for the environment and society. Putting this more simply, Anglian captures its purpose as 'to bring environmental and social prosperity to the region we serve through our commitment to Love Every Drop'. This change builds on a track record for many years of operating in the wider public interest, but the AoA changes lock this in for the long term. The purpose serves as a 'North Star' for the organisational culture, representing a common goal and informing the values and behaviours for employees. It also makes it clear that Anglian Water only wishes to attract investors, employees and partners who share the company's purpose.

Anglian's Board has also recognised that it is important to be held to account for its decisions and actions to achieve this purpose. To this end, it is identifying a set of responsible business principles as a standard against which the company will measure itself, and report on the extent to which the relevant standard has been achieved. In seeking to develop these standards Anglian Water has been working with the British Standards Institute (BSI) to develop a Publicly Accessible Specification (PAS). This will be created with multi-sector input and be applicable to all businesses with a true interest in embedding purpose. BSI has identified that *'what is absent is consensus on the shared characteristics necessary to define 'sustainability leadership and purpose'. A standard for Purpose would introduce common terminology and seek to harmonize the many existing initiatives, defining the desired destination, whatever vehicle and road is taken. This would also allow more credible independent verification of such schemes, as the standard would introduce consistency.'* The creation of this PAS has now been approved by BSI, a project manager assigned, an independent advisory group to oversee the project is being established and the PAS should be, developed, put out for consultation and published over the next 9-12 months.

Adaptive Regulation: What's New and What's Not New in RIIO-2?

A big part of the thinking behind RIIO-2 has been the desire to move to more 'adaptive regulation' as a way to accommodate the very significant changes required to deliver net zero while avoiding imposing unnecessary costs on customers.

This annex looks at how far this really is a new concept – looking first at the basic concept, then the number of mechanisms employed in RIIO-2 and then finally the scale in financial terms.

The conclusion is that while not a new concept there has been a notable expansion in the use of uncertainty mechanisms in RIIO-2 both to protect customers if allowed expenditure proves not to be needed and also to enable additional revenues to be agreed in-period.

The concept of uncertainty mechanisms is not new

The concept and the use of uncertainty mechanisms is not new in energy. Looking back to RPI-X@20, the process which gave birth to the RIIO concept, it is clear that adaptability was a key theme even back in 2009. The **working paper** on 'Ensuring the regulatory framework is adaptable' makes clear that a number of mechanisms such as volume drivers had actually been employed in price controls prior to RIIO. The paper sets out the pros and cons of a more adaptable regime and comes down in favour of relatively tightly defined uncertainty mechanisms to avoid undermining efficiency incentives and creating undue uncertainty or delay in the process. In particular it decides against the use of what it calls a 'shipwreck clause' that would allow the price control as a whole to be re-opened. Ultimately for RIIO-2 with the move to a longer 8 year control the decision was taken to allow for a mid-period review but Ofgem made clear that the scope of that review would be limited to dealing with new or changed outputs.

In its RIIO-2 methodology Ofgem articulated three areas where uncertainty mechanisms were needed:

- to support substantial changes in external policy;
- to align allowances with delivery;
- for risks outside of network companies' controls.

The 4 broad uncertainty mechanisms that it proposed using were:

- volume drivers to automatically adjust allowances in line with actual volumes where the volume of certain types of work that will be required over the period is uncertain (but where the cost each unit is relatively predictable);
- re-opener mechanisms to allow Ofgem to decide within the price control period on additional allowances to deliver a project or activity once there is more certainty on the need for it, the precise scope and cost;

- pass-through mechanisms to adjust for costs incurred that they have limited control over but where Ofgem recognise that the full costs should be recoverable such as business rates;
- indexation to adjust for costs that network companies have very limited control over such as general price inflation or interest rates.

All four of these mechanisms were used extensively in RIIO-1 as is clear from the sector specific methodology decisions where Ofgem lists uncertainty mechanisms that have been dropped, those that have been continued and those that are new in RIIO-2.

While not identified by Ofgem as uncertainty mechanisms one could also include in this list price control deliverables and use-it-or lose it allowances which both enable Ofgem to claw back money for customers if, as a result of changes in circumstances, particular projects are not pursued by the companies (i.e. aligning allowances with delivery).⁷¹

The inclusion of price control deliverables is a new mechanism and arguably in part a response to the risk of companies asking for funding for projects that are not really needed and then making 'savings' in period. However they are also an effective mechanism for dealing with genuine uncertainty where the need for investment is fairly well established but is not certain. While there were a few individual examples of this in RIIO – 1 they were not an established part of the toolkit.

The number of mechanisms in RIIO-2 is similar to RIIO-1

The following table presents a summary of how the use of these uncertainty mechanisms has evolved between RIIO-1 and RIIO-2.

What this analysis shows is that:

- in terms of the total number of uncertainty mechanisms the picture is fairly similar between RIIO-1 and RIIO-2;
- extensive use is made of uncertainty mechanisms in RIIO which reduces the risks for the companies in several areas and stands in contrast to water where eg business rates are a risk that the companies are expected to carry;
- the big change between RIIO-1 and RIIO-2 is in the area of re-openers where a number of broad re-openers have been introduced to cope with external policy change, including the high profile Net Zero re-opener. These have created a sense that Ofgem is left with considerable discretion and flexibility to make changes through the price control period. The mid-period review in RIIO-1 was a relatively broad catch-all re-opener but in the end was not used to make significant changes. Other RIIO-1 re-openers were quite narrowly defined to deal with specific uncertainties.

The other shift that is less obvious from a simple list is the scope of some of the mechanisms in particular around major projects. The new Large Onshore Transmission Investments (LOTI) mechanism is effectively a replacement for the Strategic Wider Works arrangement in RIIO-1 through which Ofgem scrutinises first the need for and then the costs of major investments before making adjustments to the allowed revenues in-period. At the same time as the overall level of investment is increasing to cope with net zero, Ofgem has revised the threshold to be £100m for all ET companies (instead of £500m for NGET, £100m for SPT and £50m for SSEN) which brings more projects into scope. An additional mechanism is also proposed for slightly smaller projects (the Medium Sized Investments re-opener) which would make discretionary some investment that under RIIO-1 was covered by volume drivers but where the unit costs are seen as not sufficiently predictable.

For ED2 the big change is in the handling of strategic investment which is proving complex, even with the experience of a load related volume driver in ED1 to draw on. The full details of how any mechanism will work will not be settled until Final Determinations for ED and hence the ED position is not explored further in this annex.

The sums involved are more significant

In discussing the scale of uncertainty mechanisms in relation to base revenues it is necessary to distinguish conceptually between mechanisms which enable base revenues to be clawed back if not needed and mechanisms whereby base revenues can be increased in-period. In practice many mechanisms do both as set out below but the nature is very different:

Volume drivers: A base 'volume' will be assumed for the purpose of calculating base revenues and the allowance will then be adjusted automatically in period – either up or down – depending on actual volumes.

Re-opener mechanisms: In most cases these are designed to allow additional revenues to be added to the allowances when the need for expenditure is clear. However in some cases they can be used for Ofgem to claw back expenditure if eg changes to legal requirements were to actually reduce the costs for companies that had been allowed in the baseline.

Pass-through mechanisms: An assumed figure for pass-through costs will be included in the base revenues which will then be automatically adjusted once the actual costs are known. This can result in an increase or a decrease in allowed revenues.

Indexation: Again for the purpose of setting baseline revenues an assumption will be made as to the future trend of the relevant index that will be used in-period to adjust allowances. This can result in an increase or a decrease in allowed revenues.

As noted above price control deliverables only allow for downward adjustment of allowed revenues when investments that are allowed for in base revenues turn out not to be required or are not delivered for other reasons.

Use-it-or-lose-it allowances can vary in how they are presented in terms of whether they are included in baseline revenues or not – but for the most part they are not. However conceptually they are a fixed allowance that can be clawed back if not used.

One measure that Ofgem have used to demonstrate the adaptability of the RIIO-2 settlement is the proportion of base revenues that are covered by uncertainty mechanisms which they quote as being 50% for GD and 70% for Transmission. In calculating this their focus is on the cost categories that are subject to volume drivers, pass through mechanisms, indexation or PCDs which would allow that baseline revenue to be reduced if not required. As noted above some re-openers can also enable claw-back but their broad nature means they cannot be quantified. The

resulting figure is in effect a measure of how far customers are protected by revenues being aligned with delivery of outputs – although in any of these categories the prospect of revenues being reduced to zero is extremely unlikely. It is not possible readily to provide an equivalent figure for RIIO-1. However, given that price control deliverables are a new and important element, it seems clear that the proportion will have increased from RIIO-1.

The other measure that Ofgem have quoted involves projecting forward through RIIO-2 to estimate how much extra revenue might be allowed in-period and hence at the end of RIIO-2 how much higher the revenues might be than what was originally allowed. Clearly this is pure speculation and, as Ofgem have made clear, there is actually no limit on the additional revenues that they can allow through re-openers. The way that they have estimated it is unclear but it assumes that where totex has been disallowed in the baseline, companies will be able to make the case for the difference through LOTI or MSIP re-openers in period when the need for that investment is clearer. However there is no objective basis for the figure and indeed on GD there are not the same sorts of re-openers that would allow for additional investments to be agreed in period.

In the stakeholder call Ofgem presented the figures as follows:

'when we published draft determinations, you will remember that that baseline totex number for the network companies was just over £16 billion and then we said there would be potentially another £10 billion or so that comes through the reopeners. So that 16 to 26 ratio would have been probably around 60:40 at draft determinations. That 16 number has now increased to about 20 and the £10 billion number for reopeners is unchanged. So we are really looking at say 20 out of 30 which is probably something more like 65:35 or 66:34 as the ratio in final determinations'.

This makes clear that the £10bn is essentially an illustrative figure (given it hasn't changed with more projects being included in the baseline).

For comparison, in RIIO-1 Ofgem has so far approved 4 Strategic Wider Works projects with a total value approaching £2bn. They have approved the needs case for Shetland which might come in close to £1bn and a further project is currently on hold. Given RIIO-1 covers an eight year period it is clear that the scale of the re-openers for RIIO-2 (even if only estimated at this stage) is very likely to result in a much higher proportion of revenues being agreed in period than was the case in RIIO-1.

Summary of RIIO-2 Uncertainty Mechanisms (ET / GD as at Final Determinations) – evolution from RIIO-1

	Dropped	Retained / refined	Introduced
Pass through		Business Rates Ofgem licence fee XOServe charges (GT/GD) 3rd party damage / water ingress (GD) Cost related to gas theft (GD) Miscellaneous (GD)	Bad debt
Indexation		RPI indexation of RAV Cost of debt	Real Price Effects Cost of Equity
Re-opener	Mid period review Innovation rollout mechanism Review of FPNES (GD) Changes to connection boundary (GD)	Tax liability Pension deficit Physical security costs Strategic Wider Works -> Large Onshore Transmission Investments (LOTI) (ET) Visual amenity UIOLI (ET) Large load connection costs (GD) Streetworks (GD)	Cyber resilience Non-operational IT / telecoms capex Co-ordinated adjustment mechanism Net zero Pre-construction funding (ET) Medium-sized projects (ET) Repex Tier 1 stubs (GD) MOBs safety review (GD) Heat policy (GD) FPNES policy (GD)
Volume driver		Smart meter interventions (GD) -> reopener	Shunt reactors (ET) Generation and Demand connections (ET) Domestic connections (GD) Repex tier 2A (GD)

Note:

- 1) There are also a small number of company specific UMs not listed eg subsea cable repairs re-opener for SHET

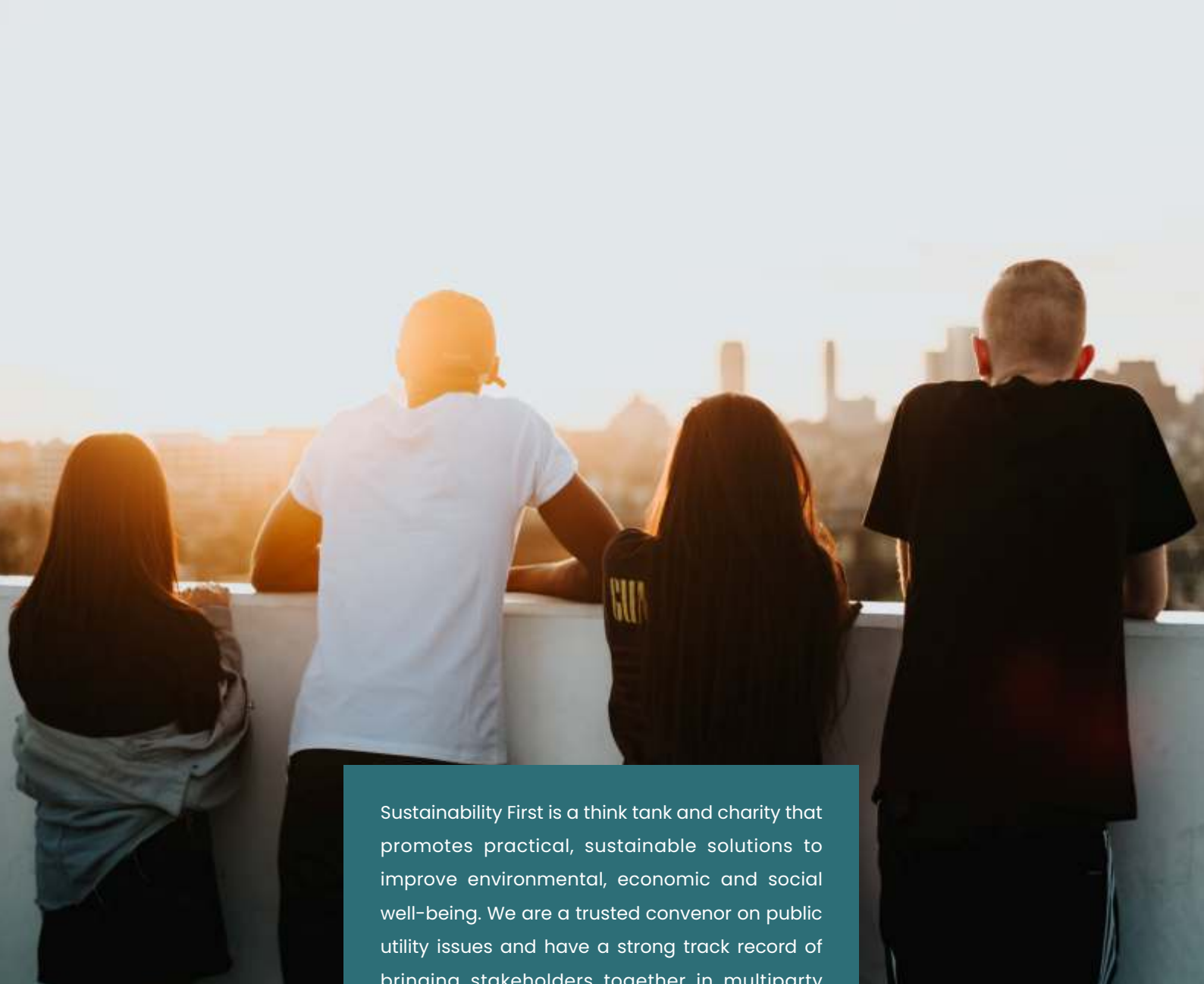
References

- 1 There is no unique definition of what constitutes policy. For our purpose we cover three, albeit related, areas:
 - Formation of medium- to long-term policy, in particular legislation, white papers, major consultations etc: 'government';
 - The day to day operation of the executive branch, up to and including Strategic Policy Statements, which give effect to this: 'policy makers';
 - Political stances – e.g. towards or away from laissez faire, levelling up – and ministerial speeches etc.: 'ministers'.
- 2 The terms public value and public purpose have gained quite wide currency but are not always consistently defined. We would say that a **company's public purpose** is the distinctive contribution that it makes to society and the environment in which it operates. The ongoing impacts it has on its customers, citizens, communities and the environment then **create public value**. It is important to note that although utilities have a public purpose they are not a public service or publicly owned service, in the way that, for example, a council is.
- 3 Some commentators would advocate an activist regulatory agenda aimed at checks on investors to discourage or even bar the 'wrong kind' of investor. On the other hand, there is a strong view that if the right regulation is in place to encourage purpose then the investor community will 'self-select' and that 'pull' factors can be better than 'push' factors here.
- 4 HM Government, [The Ten Point Plan for a Green Industrial Revolution](#) (2020); Climate Change Committee, [Sixth Carbon Budget](#) (2020); HM Treasury, [National Infrastructure Strategy](#) (2020); HM Government, [Energy White Paper: Powering Our Net Zero Future](#) (2020).
- 5 Ofwat, [PR24 and Beyond: Future Challenges and Opportunities for the Water Sector](#) (2020); Ofwat, [A Discussion Paper on Public Value in the Water Sector](#) (2020).
- 6 BlackRock, [Larry Fink's 2021 Letter to CEOs](#).
- 7 Slaughter and May, [Notes on Sustainability, Law and Regulation in the Utilities Sector](#) (2020).
- 8 See the British Academy's [Principles for Purposeful Business](#) (2019) for some of the wider changes that may be needed.
- 9 Sustainability First, [Circling the Square: Rethinking Utilities Regulation for a Disrupted World](#) (2019).
- 10 Noting that a key part of this is a lack of emphasis on the urgent need to sustain and rebuild natural life support systems.
- 11 See John Kay and Mervyn King, *Radical Uncertainty: Decision-Making for an Unknowable Future* (London: The Bridge Street Press, 2020)
- 12 There are some good signs that this is recognised – e.g. in the Ofwat strategy, the Ofgem net zero statements and in some regulatory statements on company boards and the role of company NEDs (also called 'Sufficiently Independent Directors') – but the acid test will be how this makes a difference when bills are determined.
- 13 As regards government, there is a strong case for this to extend to a degree of cross-party involvement.
- 14 Different terms are used for these. We use the term most recent used in water.
- 15 In the detailed paper we do not rule out more some formal accountability to local authorities and elected mayors
- 16 On both recommendations 8 and 9 there is a case for some duties and policy statements to be set out explicitly cross regulators.
- 17 Climate Change Committee, [Policies for the Sixth Carbon Budget and Net Zero](#) (2021).
- 18 Partha Dasgupta, [The Economics of Biodiversity: The Dasgupta Review](#) (2021).

- 19 To quote Sir John Armitt, chair of the NIC: 'To be resilient, we need to move beyond managing individual risks and assets, to thinking about the system as a whole and how the services we all rely on can be sustained and disruptions minimised. ... To achieve this we need to think more about the interdependencies between different sectors, and do more to manage the cross cutting challenges. We should also consider how to better take into account public expectations of infrastructure services – we are all infrastructure users after all.' National Infrastructure Committee, [Resilience Study Scoping Report](#) (2019).
- 20 This issue is explored in the recent Dasgupta Review, *op. cit.*
- 21 [Telecom & Energy Collaborating to Power the Smart Grids for Digital Growth](#)
- 22 Ofcom 2009, as cited in Slaughter and May, *op. cit.*
- 23 Perhaps akin to the UK Regulators Network, although we have previously noted that the strategic role of the UKRN or similar structure needed strengthening.
- 24 There is no unique demarcation between policy and regulation: while primary and secondary legislation can only be undertaken by policy makers/parliament, and the minutiae of price controls must be the purview of regulators, there is a definite grey area in the middle. With regard to enabling and encouraging purposeful companies both have a role, but regulator action may well carry more load than policy, in part because policy is one step removed from the companies which regulators are seeking to influence.
- 25 See, for example, the description of the Business Secretary's approach in 'The free marketeer learning benefits of state action', *Financial Times* (19 January 21).
- 26 HM Treasury press release, [Chancellor Sets Out Ambition for Future of UK Financial Services](#) (2020).
- 27 HM Government, [A Green Future: Our 25 Year Plan to Improve the Environment](#) (2018).
- 28 See also Sustainability First, [Consumer Vulnerability: Given Covid-19 and Net Zero, what should the medium to longer-term approach be to ensuring affordability of essential utility services?](#) (2020).
- 29 Defra, [Water Bill: Sustainable Development and Resilience Duties](#) (2014)
- 30 Energy White Paper, *op. cit.*
- 31 Following the decision in *Pepper v Hart* in 1993, if primary legislation is ambiguous or obscure the courts may in certain circumstances take account of statements made in Parliament by Ministers or other promoters of a Bill in construing that legislation. See House of Commons Library, [Research Briefing: Pepper v Hart](#) (2005).
- 32 There is an obvious and important link here with the purposeful agenda but this recommendation is also about making clear that regulators can consider wider impacts such on the local community, jobs, fair tax etc. In competitive sectors (e.g. energy retail) we also see consumers who want a sustainable product voting with their feet, but Ofgem and Ofwat have historically taken a narrow view of the consumer interest (price and quality). Telecoms duties, however, do reference citizens.
- 33 Sustainability First, [A question of principle? Economic policy makers and regulators need to adopt a set of sustainability principles if we are to survive and thrive in the disrupted world](#) (2020).
- 34 Sustainability First will be launching a new 'Sustainability Principles Project' later this year.
- 35 Defra, [The Government's Strategic Priorities and Objectives for Ofwat](#) (2017).
- 36 Of course, secondary legislation can only be introduced where there is a remit for it in the primary legislation. And legislators, notably in the House of Lords, vigorously oppose secondary legislation making powers which are too broad ('Henry VIII powers' to use the jargon).
- 37 An important caveat here is that there are some issues where there must be a formal legal separation: for example, where appeals against a judgement may be adjudicated by the Secretary of State or where a formal regulatory judgement (e.g. a penalty) is defined in law as an independent function.

- 38 In 2019, Lord Bird introduced a new [Wellbeing of Future Generations Bill](#) in the House of Lords, which had its first reading in the House of Commons in March 2020. Similar to the Wales 2015 Act, the bill makes provision for 'requiring public bodies to act in pursuit of the environment, social, economic and cultural wellbeing of the United Kingdom in a way that accords with the Future Generations principle'. It would establish a Commissioner for Future Generations for the UK and require public bodies to establish, meet, and Report on wellbeing objectives as well as publish Future Generations impact assessment. The wellbeing goals would be made by recommendations from a Citizens' Assembly and, a key difference with the (Wales) Act, it would be a legal mechanism to bring proceedings against public bodies for breaching 'future generations' obligations. It is however unlikely that this Bill will become law.
- 39 Precise remits are important here. We support something along the lines of the French climate assembly, where the government have committed to action on the back of its conclusions. See also Sustainability First, [The Voice of the People – Part 2](#) (2020).
- 40 The 2016 Scottish Government task force to redefine fuel poverty and to lay down the principles of a new policy is prescient here. One key conclusion was the need for utilities and government policymakers to recognise the role that primary health care, in conjunction with Social Services, should play in identifying families who were not thriving thus allowing utilities to focus help (and grant aid) on the most needy.
- 41 The new guidance states: 'There will be a new expectation that appraisal must assess the likelihood and extent of differential place-based impacts where it appears likely to be significant, or else explain why it is unnecessary.' HM Treasury, [Green Book Review 2020: Findings and Response](#) (2020).
- 42 There may also be concern around a region such as the north of Scotland which has an imbalance between the amount of energy it generates and the amount it uses, where consumers may if care is not taken pick up a disproportionate cost of upgrading transmission and distribution.
- 43 This is not a new finding – see Sustainability First's work in 2014 on the subject: [The Electricity Demand Side and Local Energy: How Does the Electricity System Treat 'Local'](#) (2014).
- 44 That said, government have on occasion provided both the clarity and the foundation for social tariffs (albeit that the take up of these is often quite poor, in part due to company communications). A recent example is telecoms can be found at 72D in [The Electronic Communications and Wireless Telegraphy \(Amendment\) \(European Electronic Communications Code and EU Exit\) Regulations 2020](#).
- 45 See Sustainability First, [Building from the Corona Crisis towards a Sustainable Future](#) (2020).
- 46 UKERC, [Funding a Low Carbon Energy System: A Fairer Approach?](#) (2018).
- 47 Of course, price reviews also cover very important funding for new investment; and regulators also use tools such as direct procurement and limited competition (e.g. for sewage sludge). But it is not clear to us that these have the same distorting effect on moves to establish purpose in companies.
- 48 There is of course a major debate and literature on ODI design in both energy and water – and these issues have featured heavily in both PR19 and RII02 methodology statements.
- 49 How these issues are dealt with within companies is explored in our Expert Viewpoint: [Sustainability, Governance and Public Utilities – The Role of the Company Secretary in Putting the Company's Purpose into Action](#) (2020).
- 50 Ofwat, [A Discussion Paper on Public Value in the Water Sector](#) (2020).
- 51 Ofwat set four tiers: exception, fast track, slow track and significant scrutiny, although only the last 3 were in effect used ([Delivering Water 2020: Our Final Methodology for the 2019 Price Review](#) (2017)). Ofgem concentrate on business plan incentives ([RIIO-2 Sector Specific Methodology – Core Document](#) (2019)).
- 52 See Nesta, [Renewing Regulation: 'Anticipatory regulation' in an Age of Disruption](#) (2019).
- 53 See Sustainability First, [Developing and Embedding a Sustainable Licence to Operate and a Purposeful Business Approach: A 'How-To' Guide for Public Utilities](#) (2020).
- 54 An exception here might be the ambitious target for leakage reduction set by Ofwat, which was partly structured in order to stimulate innovation.

- 55 The UK regulators network do an annual report on the costs of capital bringing regulators together: our question would be how far this really gets traction once a price review is nearing its conclusions. See [UKRN Cost of Capital Annual Report 2020](#).
- 56 There may be a question about whether the NAO would benefit from a formal change in their duties to facilitate this.
- 57 Although Ofcom have been broadly supportive of local/communications approaches, proponents argue that they could have done much more. Community radio is one type of activity (see e.g. Ofcom's [Community Radio Fund](#)) and community networks another (see e.g. the [Independent Networks Cooperative Association](#) or [Broadband for the Rural North](#))
- 58 Which could be easily addressed by company groups coming together like examiners do with students to moderate views and share best practice.
- 59 Or for issues which could be monetised, such as the societal benefit of EV charging investment.
- 60 An issue for water in particular however is that more many customers bills are paid by direct debit (or in Scotland through rates), with no opportunity for switching, so there is little visibility to customers of bill changes and since bill changes tend to be small there is relatively little need for many customers to look for details.
- 61 Defra, [Accounting for the Effects of Climate Change Supplementary Green Book Guidance](#) (2020).
- 62 Anticipatory investment is a tool also being increasingly used in financial services, which like telecoms, is subject to fast moving change. Nesta have done a lot of work in this area, see reference above. The tool is equally relevant to the discussion below on adaptive pathways.
- 63 Although this approach is obviously only relevant where the questioner does have, or envisages themselves having, children/grandchildren!
- 64 Nesta, [Our Futures: By the People, For the People](#) (2019).
- 65 The term one-shot game comes from game theory literature. It refers to a position where parties compete for a prize which is either never to be repeated (hence one shot) or where the short-term competition is unlikely to have major impacts for future competitions (as can be the case in the utility sector). The outcome of one-shot games (in particular bilateral games) can display the 'prisoners dilemma' where lack of trust and information about others' position leads to mutually suboptimal outcomes. Throw in a principal agent problem (see above) and you have a recipe for suboptimality! By contrast in a repeated game, players will be reluctant to be too aggressive because this could impact on their reputation and the outcome of future games (aka price reviews).
- 66 Ofwat, [Board Leadership, Transparency and Governance – Principles](#) (2019).
- 67 This material draws very heavily on the work for Sustainability First by Slaughter and May, [Notes on Sustainability, Law and Regulation in the Utilities Sector](#) (2020).
- 68 [The government's strategic priorities and objectives for Ofwat](#) (Defra 2017)
- 69 [Statement of Strategic Priorities \(SSP\) for telecommunications, the management of radio spectrum and postal services](#) (DCMS 2019)
- 70 This annex draws from the following sources:
 Hodges, Christopher (2016) [Ethical Business Regulation: Growing Empirical Evidence](#), The Foundation for Law, Justice and Society
 Hodges, Christopher (2016) [Ethical Business Regulation: Understanding the Evidence](#), Department for Business, Innovation & Skills
 Hodges, Christopher and Ruth Steinholtz (2017) [Ethical Business Practice and Regulation: A Behavioural and Values-Based Approach to Compliance and Enforcement](#)
 Article: ['Balance of ethics, tech and enforcement needed for better European legislation'](#) (Sept 2020)
- 71 UIOLI mechanisms are listed as an uncertainty mechanism in the GD annex but not elsewhere.



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