

Initial Decision Paper 11: Innovation

This is the eleventh in a series of Initial Decision Papers that the Water Industry Commission for Scotland will publish during the Strategic Review of Charges 2021-27. The Commission will issue initial, revised and final Decision Papers. These Initial Decision Papers set out, for customers and other stakeholders, the Commission's current views on important matters relating to the Strategic Review of Charges 2021-27. They will provide the Commission's views on:

- Strategic issues facing the industry that will impact levels of service beyond the next regulatory control period;
- The prospects for customers' charges during the next regulatory control period;
- Issues that directly and materially impact the charges that customers will pay in the next regulatory control period;
- The potential for Scottish Water to engage even more effectively with its customers; and
- The approach to the Strategic Review of Charges 2021-27.

The Commission has adopted the principles of Ethical Based Regulation and intends to conduct a transparent and collaborative price review¹, taking account of all the evidence available to it in coming to the views set out in these Initial Decision Papers.

In line with the Cooperation Agreement signed with Scottish Water and Citizens Advice Scotland, the Commission would be minded to adopt a business plan that is consistent with the Commission's Final Decision Papers and agreed with the Customer Forum as its Draft Determination.

This Initial Decision Paper discusses the areas that are creating barriers to innovation and highlights ways in which we envision Scottish Water making progress in each of these areas. It then highlights the benefits for Scottish Water, its customers and its regulators from pursuing innovation collaboratively.

Key messages

Most of us are fortunate enough never to have to think about the water and sewerage service that we receive. We take it for granted that the water from our tap is safe and that our waste water is cleaned up before being returned to the environment. The water industry prides itself on its role. It is therefore perhaps understandable that it is an industry which prefers the tried and tested.

Critics suggest that the water industry could be more innovative and has a bias towards more traditional solutions. They are right. But if current and future customers are to benefit from an affordable and sustainable water industry, we should seek to address the root causes of any such biases and provide incentives to change. There appear to be three principal issues:

- The industry has, for understandable reasons, sought to be a 'silent service'. However, in so doing, the industry may have become too conservative and insufficiently open to new approaches.
- The governance and regulatory framework has not helped. A short-term focus on cost targets was important to improve efficiency but it has tended to discourage more innovative, sustainable and lower whole life cost solutions.

¹ 'Innovation and Collaboration: future proofing the water industry for customers', published on 10 April 2017 and available on the Commission's website.

Initial Decision Paper 11: Innovation

- There has been an adversarial approach to regulation, with a lack of trust between regulator and regulated. This has stifled the opportunity for joint working to deliver innovative and collaborative solutions.

Scottish Water's step change improvement in efficiency has allowed substantial improvements in water quality, the environment and levels of service to be delivered within a broadly stable framework for charges. Scottish Water should extend its dialogue with customers and communities, to listen, to understand and to be responsive to their needs. Increased innovation will be key to ensuring that society's and customers' expectations for further improvements are met.

Scottish Water needs to have the space to be innovative but this will be much more straightforward if it builds and maintains the trust of its customers and regulators. Scottish Water should always be ready to demonstrate why such trust is warranted.

There is the potential for big gains from innovation and moving beyond basic compliance with regulatory standards. Creating the space for innovation will require more joint working with regulators to enable a shared understanding of risk, without compromising on statutory responsibilities. Only then will Scottish Water be able to fulfil its full potential to deliver a safe, sustainable and affordable service.

Introduction

In our methodology, "Innovation and Collaboration", we explained that adopting more innovative approaches will be essential to meeting the challenges facing the water industry in a way that is sustainable and affordable. We explained how the water and sewerage industry has been traditionally characterised by a low appetite for risk and a bias towards more traditional civil engineering solutions. We have identified three issues that appear to lie behind such characterisations.

- The industry's desire to be a 'silent service';
- The regulatory framework; and
- The relationship between regulators and regulated company.

We will discuss each in turn and set out how we believe progress could be made. It is important to recognise that Scottish Water has an essential role to play in building and maintaining the trust of its regulators and customers. It is this trust that will allow the space for more innovative solutions to be jointly developed, trialled and accepted.

Customers should expect that the approach of Scottish Water will ensure that they demonstrably receive a more sustainable and affordable service over the longer term – in short, they should feel that Scottish Water is truly accountable for its actions. Scottish Water should be ready to demonstrate why such trust is warranted.

Our experience in the Scottish water industry has been that allowing dedicated funds for 'ring fenced' innovation projects has not been effective. The Commission adopted such an approach in previous price reviews and there was little evidence that this was an effective way of driving innovation and changing behaviours. Similarly, our observation of other regulatory approaches to promoting innovation suggests that the focus is often on specific projects that are related to new and developing technologies, where there is the greatest risk of failure. Socialising risk can only reduce the level of commitment that a management has towards any particular approach.

Initial Decision Paper 11: Innovation

In our view new technologies are a small, if important, opportunity for innovation – we see more significant opportunities for innovation across the industry to improve existing approaches, processes and solutions. We are therefore proposing a new approach to tackling the issues highlighted above. This involves encouraging innovation through creating a culture of collaborative working which facilitates a ‘safe space’ to implement innovative ideas and allows a shared understanding of risk.

The Silent Service

The issue

Water companies provide an essential service. As consumers, we rely on them to provide clean and safe drinking water and to return our waste water, suitably treated, to the environment in a safe and sustainable way. It is perhaps not surprising that, faced with such a responsibility, water companies adopt prudent, tried and tested solutions. Water companies are proud that they provide an effective, ‘silent service’ that consumers are able mostly to take for granted. As consumers, we very rarely turn a tap and do not get fresh wholesome water at a decent pressure. Similarly, consumers are able ‘to flush and forget’.

It is therefore not surprising that water companies have historically been cautious when it comes to adopting alternative approaches of delivering services. Until now this has not been a particular issue because a substantial reduction in unit costs has allowed very many improvements to have been delivered within a broadly stable framework for charges. As the scope for significantly reducing unit costs diminishes, it becomes increasingly important that the water industry becomes more innovative, in order that the expectations of consumers and society more broadly can be met both sustainably and affordably.

How could innovation be encouraged?

Scottish Water has made progress in seeking to raise awareness of the service it provides and how customers can contribute to improving services: for example, through its television advertising campaigns. However, more needs to be done. Greater dialogue and collaborative engagement between Scottish Water, its regulators and its customers will be critical. Scottish Water will have to feel that it has the space to be innovative and that there is a genuine recognition that not all novel approaches are likely to work. Equally, regulators will need to trust that Scottish Water’s approach to innovation safeguards, and looks beyond, compliance and is focused on providing better outcomes for customers and the environment – not just cutting costs.

To be effective, Scottish Water will have to be pro-active in explaining and evidencing to Government, regulators, customers and communities what it may be able to achieve, the costs and the benefits: building a consensus among stakeholders.

The Regulatory Framework

The issue

Regulation of the water industry in Scotland has been very effective. Service levels are much improved and unit costs are some 30% lower² than they were before the introduction of economic regulation. There have been significant improvements in drinking water quality and in overall environmental performance.

In recent years we have sought to remove any barriers to innovation in the economic regulatory framework – either perceived or real. For example, we traditionally considered Scottish Water’s operating expenditure and capital expenditure separately. Scottish Water had little incentive to consider whole life costs if the adoption of a particular solution was likely to have a disproportionate impact on either operating or capital expenditure in the short term. Notwithstanding attempts to reassure Scottish Water that our focus was on whole life costs, this issue was only fully addressed with the introduction of the financial tramlines at the Strategic Review of Charges 2015-21.

Quality regulators have, until recently, also been focused primarily on ensuring compliance with water quality standards and discharge consents. Such an approach did not encourage Scottish Water to look beyond compliance or focus on reducing risk through seeking more innovative and sustainable approaches.

² Relative to CPI, equivalent to almost 40% relative to RPI.

Initial Decision Paper 11: Innovation

More recently, the Drinking Water Quality Regulator (DWQR) has focused on approaches based on Drinking Water Safety Plans. These focus on addressing underlying risks and offer the opportunity for more innovative approaches. The Scottish Environment Protection Agency (SEPA) has introduced its One Planet Prosperity strategy. SEPA has made it clear that it is encouraging all companies to investigate how they can move 'beyond compliance'.

There is a shift occurring in the industry that builds upon the appetite to address the identified needs more effectively by exploring new and innovative methods that could achieve the desired outcome in a more affordable and sustainable way.

How could innovation be encouraged?

In our view, the previous regulatory barriers that created perverse incentives to 'pour concrete' and adopt traditional capital solutions have largely been removed. Our proposed changes to the approach to defining 'needs'² should allow Scottish Water more time to develop better and more innovative projects. This appears to be fully aligned with the revised regulatory approaches of both DWQR and SEPA. It is for Scottish Water to work with customers and communities to show the benefits that can be achieved through this greater level of collaborative working.

Scottish Water needs to use this time wisely – for example, it would be worrying if potential needs were not to continue to be met in a timely fashion. Again the onus is on Scottish Water to build trust with all its stakeholders and, through its actions, demonstrate why such trust is warranted. As trust builds, the scope to consider more radical innovations will also increase.

Scottish Water appears to have begun to be more pro-active in seeking out innovative solutions to the outcomes desired by its customers and regulators. The joint work of Scottish Water and SEPA at Dalmarnock and Daldowie is an interesting example of what can be achieved by constructive dialogue, a shared understanding of risk and the development of open and trusting relationships. Of course, any innovative solution may prove to be unsuccessful, but a similarly collaborative approach between Scottish Water, regulators, customers and communities to communicating and dealing with risks will ensure trust is maintained.

The Regulatory Dialogue

The Issue

Regulation of the water industry has tended to focus on 'policing' and using the information from monitoring performance to set new prices or levels of expected service and compliance. It has not encouraged open dialogue between regulators and regulated. Similarly, Scottish Water has been cautious about how it communicates with customers and communities, seeking primarily to inform rather than pro-actively engage. The approach to monitoring the delivery of the capital expenditure programme, whilst successful in bringing stakeholders together, has focused on checking delivery rather than on ensuring that the most sustainable and effective solutions for customers and society are delivered. It is therefore not surprising that Scottish Water has tended to focus its innovation on a relatively limited and 'safe' set of initiatives.

How could innovation be encouraged?

Initial Decision Paper 13 describes our proposal to extend the role of the Outputs Monitoring Group to allow increased dialogue and constructive debate as to how identified 'needs' are best met. This rebalances the focus of regulators away from 'policing' and scrutiny towards a focus on achieving the best possible and most sustainable outcomes. The cost reductions that will doubtless arise from greater collaborative working can be used to recognise and reward the efforts of each party.

Customers and communities have a vital role to play in such conversations. We only have to reflect on the potential economic and environmental benefits of initiatives such as heat capture from waste systems, or the development of 'green cities' to realise the scope for greater innovation through more strategic and 'joined up' thinking. There is much more that can be done – but it is only through dialogue, involving all the relevant stakeholders, that the opportunities are likely to be maximised.