David Hume Institute

Balancing Regulation and Competition in the water business in Scotland

A speech given by Sir Ian Byatt at the Royal Society, Edinburgh

19 April 2006

Ladies and Gentlemen,

It is a privilege to give this lecture tonight, and an honour to do so under the Chairmanship of my former colleague and long-term mentor, Alan Peacock. It is a pleasure to speak to the Institute early in the Directorship of my Treasury colleague, Jeremy Peat. It is a delight to address this distinguished audience in the city where David Hume lived and worked.

"*Money…is none of the wheels of trade: it is the oil which renders the motion of the wheels more smooth and easy*."

David Hume *Essays: 1741-2 Of Money*

Regulation may have been unknown to Hume – although there was a supply of piped water to Edinburgh in his days - but I believe that he would have regarded regulation, like money, as the oil, not the engine and, like money, believed there can be too much of it.

"Avarice, the spur of industry…works its way through so many real dangers and difficulties…"

David Hume *Essays: 1741-2 Of Civil Liberty*

Avarice, or incentives as we would now say, permeates regulation as well as industry, providing its motor force.

"Does it contain any experimental reasoning, concerning matter of fact and existence? No. Commit it then to the flames: for it can contain nothing but sophistry and illusion "

David Hume *An Enquiry Concerning Human Understanding*" 1748

Belief and action should be based on facts not received opinion.

How can we apply these concepts to regulating publicly owned utilities – and, perhaps, other public sector bodies? This is my task tonight, using water services in Scotland and the work of the Water Commission as an example, and perhaps a model, of what can be done.

First, let us put water in Scotland in the wider context of European utilities.

The old model in Europe

The old model, the traditional European way of dealing with utilities – classified as services of general economic interest – has been to designate a body, typically state-owned, with a statutory monopoly, to deliver collective objectives such as universal service provision, or, to use European terminology again, to discharge its "mission".

In the UK these bodies, all with statutory monopolies, comprised the nationalised industries. They were part of a post-war world of national planning. Many of them have now been transformed into regulated privately owned businesses. Some, notably the Royal Mail and Scottish Water remain as public enterprises, but with their own regulators.

Water services in Europe are generally fragmented and are often still at the municipal level. They have been consolidated in the UK into water authorities, and now water companies - in England and Wales in 1974 and more recently in Scotland and Northern Ireland.

There has been much less change in Continental Europe than here in the UK. But the distinction between natural and statutory monopoly is recognised in the Treaty of Rome, where exemption is granted from the competition rules for services of general economic interest - only in so far as this is necessary to discharge their "missions".

The old model generated its own economics with a distinguished pedigree. It developed in France from the tradition of engineering economics. In the Anglo-American tradition it derived from the work of Lerner and Lange in applying classical micro-economics to state industry. It was used with great distinction by Boiteaux in developing pricing rules for electricity. It found its way into the Treasury White Papers on Nationalised Industries, particularly the one published in 1967.

This economics is, however, about how to run state industries, not how to regulate them. The economics that has proved useful in regulating utilities has derived from a different tradition, one concerned with the power of structures, institutions and incentives, not of internal pricing rules or how best to appraise investment projects.

The new model

To understand the new model let us go back to basics.

Utilities provide collective services as well as responding to individual or household demand. Decisions on the nature and scale of the implementation of collective objectives must be collective. But it does not mean that they must be provided by a government owned supplier. Nor should we assume that a supplier should have a statutory monopoly.

Provided there are ways of ensuring that collective demands are met – through finance or regulation or by some combination of both – competitive suppliers can deliver them, while responding to the individual requirements of their customers. But where there is natural monopoly, that is where there are substantial economies of scale over the whole range of output, competitive supply is effectively prevented.

Where competition is possible we should facilitate or promote it; regulation will only be necessary to ensure matters such as product safety. Where natural monopoly is inevitable, it is necessary to turn to some form of regulation of outcomes and prices. But this does not imply regulation – as opposed to analysis - of costs or ways of producing these outcomes. Regulation should focus on outcomes and incentives, not inputs and micro-management.

Proper separation of responsibilities and accountabilities is a key to establishing helpful behaviour and proper incentives. Responsibilities divide between suppliers, a business function: ministers, a political function: and regulators, a supervisory function. Ministers should provide clarity on objectives and should refrain from intervening in the delivery process. Regulators advise on objectives, establish prices, facilitate or promote competition and monitor performance. Suppliers focus on business, competing for customers or achieving collective objectives.

Incentives may be positive or negative; either incentives to outperform expectations, or incentives to avoid failing to deliver what is required. They are sticks as well as carrots.

Good information is essential. It should be both comprehensive and comprehendible, not just data. It must be trustworthy and trusted, avoiding asymmetry in quality and understanding, and regulatory gaming. It must be designed to promote consultation with all the stakeholders in politically visible industries.

Paper, not water – that is always the jibe. But information, if consistent, and repeated, does change behaviour.

A cultural gap

There is a cultural gap between the old and the new models – a gap that is wider than matters of ownership. It is the gap between rule by the Platonic guardians, who know what is best for us, and the contestable world of David Hume.

At a more mundane level, a switch towards outputs and outcomes, to the virtues of out-performance, and away from expenditure control and managing allocated moneys can transform the culture of an organisation – to one that strives for achievement rather than doing no more than is strictly necessary.

Proper structuring of incentives is a major element in closing this gap. In a public sector model, regulators need to replicate the shareholder pressures that drive action in privately owned companies.

Applying the new model in an institutional context

How could this new model work in a publicly owned organisation? What is the role of the regulator? Specifically, how could this model work in the case of water services in Scotland?

Regulators need to be party to developments in institutional structures, and the way they operate. They need to search for opportunities to structure good incentives for all, i.e. for suppliers, customers, developers, ministers and regulators.

This involves supporting institutions and practices that create good information and incentives, generate cost-effective decisions, ensure openness to customers, and facilitate entry by new providers.

It means avoiding inferior institutional structures and bad incentives – to inflate costs, to use the political process to short-circuit analytic processes, and generally to do deals in smoke-filled rooms.

Regulators have limited opportunity to create institutional structures and may need to concentrate of developing incentives within existing structures. But there are areas, e.g. in developing competition, where they should exercise a benign influence on institutional structures.

Water services and incentives in Scotland

So what is the situation in Scotland concerning incentives, and what are we, the Commission doing to influence and develop it?

I will run through the incentives that are, and could be, facing the various actors on the scene - existing and new suppliers, customers, developers, ministers, and regulators. Inevitably there are overlaps.

Incentives for existing suppliers

Let us begin with existing suppliers.

As a result of recent reforms, there is now a single, externally regulated, Scottish Water, financed to deliver ministerial objectives efficiently, and to provide good service to customers. The Chairman now comes from a business background. These are major steps forward from a position where water was simply a department in a local authority with many other objectives.

Scottish Water does not monitor its own output. There are quality regulators, the Drinking Water Quality Regulator (DWQR) and the Scottish Environment Protection Agency (SEPA), together with the Commission and the customer representatives, Waterwatch, to provide an objective assessment of delivery.

Better information - flowing from the returns made by Scottish Water to the Commission, from the regulatory accounts and from a major effort by Scottish Water to improve its knowledge of its assets - provides the clarity required for proper accountability.

There are pressures for greater efficiency and for better customer service deriving from comparative competition. Price limits are set on the basis of comparisons with England and Wales, where the pressures from financial markets are driving increases in efficiency and customer service.

Developments in the 2006-10 Strategic Review

New incentives were developed in the 2006-10 strategic review of charges to yield:

A hard budget constraint linked to a set of regulatory accounts that will be used to monitor financial performance,

A cost of capital, linked to that used by Ofwat, that allows for such risks as are within the control or influence of management,

A process whereby material changes in legal obligations and ministerial objectives will trigger changes in price limits, either between reviews or at the next strategic review, A £50m buffer to act as a quasi-equity cushion that insulates customers from shocks that are outside the control of management. It can only be utilised with the consent of the owner, the Scottish Executive, acting on advice from the Commission.

The establishment of a fund, to be held in gilt-edged securities, for any out-performance of the financial expectations in the price determination. This fund would be available at the next strategic review to be used by ministers and regulators, to reduce prices, improve customer service, or improve water and environmental quality.

A requirement by the owner, the Scottish Executive, that bonus payments to management must be fully self financing and only be made when regulatory expectations have been outperformed. This ensures a clear relationship between personal reward and delivery.

Incentives to new entrants

The statutory requirement for separation of the retail services of Scottish Water to business customers and provision for the licensing of new retailers who can improve these retail services or supply them more economically.

To open up this market on a level playing field – and one that is seen to be level - will require the new retail arm of Scottish Water, Scottish Water Business Stream (SWBS), to be demonstrably separate from the wholesale supplier, Scottish Water - separate governance, separate management and separation of activities and assets.

From 2008, entrants will be able to provide retail services (billing, customer service and value-added services) to over 100,000 business users, both large and small, for the supply of water and the disposal of wastewater.

SWBS will require its own working capital. To avoid state aid, and to keep the playing field level, implies borrowing at commercial rates. The best way to achieve this would be for SWBS to borrow directly from the market. This would give it market incentives to invest wisely and efficiently.

Borrowing from the market would also have the advantage of involving bankers directly, as has happened in England and Wales, to improve discipline in the use of funds. It could be achieved by SWBS taking a minority share in a Joint Venture.

It would also release funds that the Scottish Executive could also use for other public services.

Incentives for customers

The price limits determined on St. Andrew's Day will finance rapid progress towards the full metering of business customers. When meters are installed, business users will have proper incentives to use water and wastewater services wisely. Retailers would be free to design tariffs that are attractive to customers.

The development of a competitive retail market would lead the Commission to limit wholesale rather than retail prices. It is studying, jointly with Scottish Water, the structure of costs in the wholesale business.

As the retail market develops, the Commission will protect customers by outlawing undue preference and requiring all suppliers to offer a "default" tariff that would be properly related to the regulated wholesale tariff.

The price limits set for 2006-10 allow for some unwinding of the cross subsidy from business to household customers. This will be further examined at the next price review, when the results of the study of the structure of wholesale cost will be available.

The Commission intends to examine the relationship between charges to customers, including household customers, taking a measured supply and those paying on a taxation basis. In England and Wales, metered bills - for a standard consumption - must not exceed unmeasured bills by more than the additional cost of metering. This led to a substantial reduction in measured tariffs, promoting a steady switch towards metering and greater care in using water and discharging wastewater.

Incentives for developers

Finance has been provided, through the price limits set in November, for Scottish Water to deal with the peculiarly Scottish problem of development constraints. New regulations now ensure that incentives are in place to use the property market to prioritise aspirations.

The Planning Authorities have a crucial role in preparing Structure Plans and granting planning consents. They will facilitate, but do not control, construction activity by Scottish Water.

Builders are responsible for local development costs, subject to receiving a reasonable contribution from Scottish Water when the new properties are connected. Price limits allow Scottish Water sufficient funds both to make these contributions and to enhance the capability of the strategic network.

Scottish Water customers are making their contribution to development in Scotland where it is permitted, and where it is economic. They should not pay for extensions to the strategic network where local Planning Authorities do not want to see development, nor where developers do not want to build.

Incentives for ministers

The Scottish Executive accepts that any failure of Scottish Water to deliver the outputs financed by the price determination would fall on taxpayers, not customers. Customers are not expected to pay twice.

This provides a powerful incentive to Scottish Ministers. Under the UK public finance arrangements, every £ more for water will mean a £ less for other public services, such as health and education.

The public finances are tightening, in the UK in general, and in Scotland in particular. I fear lest economies in public expenditure lead to cuts in the amounts that the Scottish Executive lends to Scottish Water - as happened south of the border in 1976, when the investment programmes of the water authorities were reigned back to meet the required IMF cuts in public expenditure.

This would imply a substantial increase in customers' bills. It could, however, be avoided by borrowing directly from the market. To do this would involve forming a trust or a co-operative within the public sector model, with powers to borrow directly to finance its investment.

Rates may be somewhat higher than those available from the Treasury. But greater efficiency could be expected, especially in relation to investment. Such a body would need to convince the capital markets, that although publicly owned, its financial strength and efficiency was comparable to privately owned companies elsewhere in the UK.

Incentives for regulators

Where there is good information and regulatory trust, regulators can concentrate on the achievement of outputs and leave the management of inputs to the supplier. Otherwise, there is constant temptation for all the regulators to micro-manage Scottish Water's activities.

The process (the Quality and Standards process) for planning projects for the enhancement of water and environmental quality, needs to be closely linked to monitoring the delivery of such projects.

A joined-up process for regular monitoring of the delivery of the outputs required to meet ministerial objectives has been established. This should generate a strategic process for developing future objectives for the implementation of the EU Water Framework Directive (WFD) - a Directive that requires "good" water quality but does not specify what "good" might mean.

We need to recognise the constraints on the scale of an investment programme that can be efficiently delivered. There is already an overhang in a programme that is equivalent to half the output of the construction industry in Scotland. Investment per head of population is higher than in England and Wales.

Continuation of a scale of investment that is consistent with achieving proper efficiency in delivery, say an annual programme of some £400 – 500 million would be compatible with a continuation of price limits that mirrored inflation.

For the early phases of the implementation of the WFD, it would seem sensible to develop a system of prioritising projects for the improvement of water and environmental quality within this level. The quality regulators would choose the most environmentally cost effective projects for early implementation, while avoiding a workload that would generate wasteful increases in prices.

Wider application of the new model

In many parts of the world, countries want more effective and efficient water systems to cope with demands for rising standards – and in many cases for decent basic supplies. They want to maintain a public sector model and improve its performance.

Other utilities particularly intertwined in the public sector, such as railways and postal services, are striving for improved and more efficient services, using competition and the incentives deriving from private sector participation to the extent possible.

Other public services, such as health and education, are seeking to be more responsive to users, while avoiding the strings of central planning.

Perhaps they have things to learn from what we are doing in our Scottish public sector model. The key to success is the ability to develop incentives without opening these services fully to the capital markets.

Conclusions

To conclude, Ladies and Gentlemen.

I have attempted to set out the new model for regulating utilities that has developed, as a practical tool, in the UK in the last twenty years. It has stood the test of time and brought great benefits to customers.

Many elements of this model are now in place in Scotland as a result of changes made in the last decade. They have taken place within the context of a public sector model.

Current developments include establishing tighter disciplines on managers and strengthening personal and institutional incentives for producers, customers, developers, ministers and regulators alike.

They also include the separation of a retail segment of Scottish Water and the licensing of new entrants to provide retail services to all business customers.

Looking further ahead, it would be wise to explore innovative ways of using private finance within a public sector model.

In doing this we must keep our eye focussed on the ball and be practical about what matters to customers and to the Scottish people. I believe that they want public control of objectives and public supervision of the delivery of these objectives. They also want stability in their bills.

Within this public sector framework, let us use the tools that David Hume might have recommended to deliver collective and customer objectives in the most cost-effective way.