

OFWAT

Towards Water 2020 – Meeting the challenge for water and wastewater services in England and Wales – Wastewater Response

Background to CIWEM

CIWEM is the leading independent Chartered professional body for water and environmental professionals, promoting excellence within the sector. The Institution provides independent comment on a wide range of issues related to water and environmental management, environmental resilience and sustainable development.

CIWEM welcomes the opportunity to respond to the Ofwat consultation on *Water 2020 - Meeting the challenge for water and wastewater services in England and Wales*. This response has been formulated with the assistance of our Wastewater Management Panel of technical members who have a wealth of experience in the sector. CIWEM has responded separately on the water resources aspects of the consultation.

On 20th January 2016 CIWEM organised a technical seminar: *Towards a Market for Sludge: Challenges and Opportunities* to help inform a response to this consultation. The seminar sought views from representatives from each of the water and wastewater companies, consultants, the Environment Agency and CCWater, in particular looking at the environmental impact of the proposed reforms.

Summary

Creating a market for sludge could provide the opportunity to revolutionise its wider perception and release its potential to be fully utilised as a resource. However the route to a functioning sludge market also has significant challenges, both economically and practically.

CIWEM considers that deregulation, in concept, is a good idea to drive innovation and competition. However we are concerned that the way the proposals have been presented by Ofwat overly rely on market forces to drive an improvement in overall service. Experience in the commercial anaerobic digestion (AD) market shows that although the industry is thriving, the quality of the sludge recycled to land is deteriorating. The profit-driven industry is not taking the final stakeholder (the farmer) into account. If the trust of the agriculture industry is lost, then there will not be a major market for sludge. We consider that deregulation should not erode the quality of the service provided to all customers and stakeholders, and it should not allow the erosion of environmental protection.

CIWEM believes that the consultation document is flawed in that the questions are shaped to support the new proposal. We consider there is too much emphasis on the concept that deregulation will create opportunities and drive innovation without any evidence to support this. It is very difficult to give meaningful feedback for questions 23 to 45, as we believe far

more fundamental questions should be answered before the allocation of regulated capital value (RCV) is considered. We have instead summarised for Ofwat the range of views presented at the CIWEM seminar from the delegates on the challenges and opportunities in implementing a market for sludge.

Challenges to developing a market for sludge

Environmental impact and risk

- A harmonisation of regulations between England and Wales (and Scotland) would be beneficial. Without this companies might be negatively impacted, especially those on the borders. There are also inconsistent regulations between water and sewerage companies (WaSCs) and other forms of organic waste (OOW) which need to be resolved.
- The document does not address water scarcity and environmental quality. These are absolutely fundamental to whether or not deregulation will work. Please see CIWEM's response from its Water Resources Panel for more information in this area.
- Currently water companies own the risk associated with sludge recycling and manage it through asset investment to ensure that sludge will always be recycled or disposed of. Unlike in standard markets, the product will always be produced, regardless of the downstream demand. Should the downstream demand fall (e.g. due to external factors e.g. tariffs/ energy prices) and sludge is no longer as valuable and there is no alternative asset base to handle the material, who then owns the risk?
- Experience from the commercial AD market has shown that there has been a deteriorating quality in the final product not being biologically stable and containing high concentrations of glass.
- There are still issues that need to be resolved around the regulation of co-digestion.
- New entrants are likely to be solely driven by profits, rather than environmental performance and customer service.

Customers and stakeholders

- It has not yet been determined if the changes will provide a benefit and value for money for customers.
- As some companies would have a competitive advantage (for example existing headroom) on the commencement of a market, how will Ofwat ensure a level playing field across water companies?
- There are perception issues around biosolids in the agricultural market and food chain which will need to be managed.
- Potential new market entrants advise that there is existing over-capacity within AD assets for food waste. They are already competing to fill digesters with ever reducing gate fees so it may not be realistic that water companies will be able to co-digest with other wastes.

Application of markets

- The boundary between sludge and sewage treatment works will need to be defined, both physically and economically. This may prove difficult in practice.
- There may be difficulties around the structuring contracts e.g. liquor treatment requirements for sludge. Sewage treatment works and sludge treatment facilities are intrinsically linked and it will be challenging to separate these to enable new market entrants to deliver services without a detrimental impact on the upstream sewage treatment works. If the two works are operated by different companies, there are times where the transfer of sludge to the sludge works, and reciprocal transfer of liquors to the sewage works would stop.
- Private finance initiatives (PFIs) have been suggested as a means of funding investment and innovation. PFI contracts can become burdensome fairly early on in what tend to be long contracts. Private financing, by its very nature will also drive down quality. For example, commercial AD plants do not build to The Water Industry Mechanical and Electrical Specifications, and this is starting to have consequences. If deregulation is to work then it should not be solely financially driven.

Cost Allocation

- There is concern over the complexity of the legislation and the ability of companies (incumbent and new market entrants) to apply it fairly and consistently. Ofwat will need to provide very clear guidance on how to determine cost allocations.
- How Ofwat will separate the cost elements in the market, for example transport and treatment, needs to be carefully considered. The geographical extremes of the country (e.g. South West) are likely to be disproportionately negatively impacted if transport costs are included within treatment; their operations will look considerably more expensive and less efficient.

Cost: Benefit

- Costs might increase as contracts will require management overheads. Additionally, the risk associated with duty of care might also increase costs. This is likely to be passed on to the customer.
- It has not yet been demonstrated that there is enough value in the market for customers.

Regulated Capital Value (RCV)

- Companies with more headroom will have a stronger position in the market. As they will have paid for this with customers' money (perhaps being rewarded for their own inefficiencies), Ofwat will need to consider how the benefits will be passed to customers.
- It appears that Ofwat are proposing to reallocate the RCV to not skew existing assets in favour of the WaSCs; which is sensible. However, it appears that entrants are disproportionately encouraged through incentives. This could encourage the wrong entrants into the market, or entrants that do not have long-term water quality as their key driver.

- In co-located commercial AD plant where municipal headroom has been taken up by the commercial activity, it has become incredibly complicated regarding regulated and non-regulated business, and allocation of the RCV.

AMP6 Investment

- Companies are currently having to make decisions about their AMP6 investment delivery, and a lack of clarity could lead to stranded assets. Guidance will be needed around asset investment decisions as companies are unclear how stranded assets will be handled. There is a concern that the average asset life for stranded assets has been calculated on is unrealistic. Whilst an average, it does not take into account the impact on individual companies.

Opportunities in developing a market for sludge

Environmental impact and risk

- The harmonisation of environmental regulations may be catalysed. In particular delegates were interested in harmonisation of *The Sludge (use in Agriculture) Regulations (1989)* and the *Environmental Permitting Regulations*. This may open up the opportunity to co-digest sludges with other wastes, for example food.
- There is a greater potential for environmental improvements, for example carbon reduction in the move towards AD technologies.

Customers and stakeholders

- Customers should pay less if markets are successful.
- The Biosolids Assurance Scheme is just about to launch. There is an opportunity for this to be rolled out to new market entrants and continue to maintain confidence with agricultural customers and food chain suppliers.

Application of markets

- The PFI model has worked effectively in Scotland, this may start to move England and potentially Wales along a similar path.
- Localised and site specific competition is likely, with just the discussions around markets beginning to catalyse incumbent WASCs to look for opportunities to trade at a local level.

Cost Allocation

- Companies and Ofwat will understand the true costs of sludge treatment. Currently costs are often tied up with sewage treatment and historically have been difficult to separate.

AMP6 Investment

- Markets provide the potential to remove or diminish the five year AMP cycles, which can stifle investment and reduce the appetite for risk for incumbent WASCs.
- New entrants may be less risk averse than WASCs, helping to drive innovation.

Innovation and Operational Efficiency

- Markets will increase the focus on sludge at board level within WASCs, which may create the opportunity for operational efficiency and environmental improvements.
- Joint Ventures may increase best practice and knowledge sharing.
- Different products and services for different wastes may begin to be developed with a range of prices and products offering agricultural customers/ 3rd parties more choice. Markets may stimulate creativity in sludge products.
- Optimisation saving without an open market is possible, for example between local water companies.