

NON-VERBATIM MINUTE

DATE: Tuesday 8 December 2020

TIME: 17:00 - 18:00

METHOD: Zoom Meeting

CHAIR: Baroness Anne McIntosh of Pickering, Co-Chair of the All-Party Parliamentary Water Group (Con)

MINUTES

Prior to the formal proceedings of the meeting, the Chair, **Baroness Anne McIntosh** asked attendees to pause for a minute's silence in memory of those who lost their lives in the tragic accident on Wessex Water's Avonmouth site on 3rd December.

After the silence, the Chair indicated her thanks to everyone working in the sector who put themselves at risk for the safe supply of water. She went on to welcome speakers and attendees to the final virtual meeting of the All-Party Parliamentary Water Group (APPWG) for 2020, which would be focusing on the delayed UN Climate Change Conference, also known as COP 26, which is now taking place in November 2021. She briefly gave an overview of the APPWG as an informal cross-party forum for MPs and Peers to discuss water as a key policy area and engage with stakeholders.

The Chair set out that in this meeting the Group wanted to identify what the water sector is doing to prepare and contribute to their ambitious self-set target of reaching net-zero emissions by 2030, particularly thinking about innovative technologies, jobs and skills across the industry, collaboration and nature-based initiatives. She recapped that this meeting followed excellent sessions this year on the impact of COVID-19 on the industry, the Agriculture Bill and devolution in the water sector.

She said she was delighted the Group had again been joined by a panel of excellent speakers and with this, she introduced Sam Larsen.

Sam Larsen, Programme Lead, Water UK

Sam Larsen began by introducing himself and indicated that he would be setting out details regarding the sector's '[routemap to net-zero](#)', which Water UK launched a few weeks ago.

He explained that the sector committed in 2019 to reach net-zero operational emissions by 2030, which is considerably sooner than the 2050 target currently enshrined in law. Over the past year, the sector has been working with two international consultants, Ricardo and Mott MacDonald to set out a plan of how this will be reached. He noted that they have drawn on ten years' worth of sector-wide operational emissions data that has been consistently collected since a project run by Ofwat and industry 12 years ago. He said that

this dataset has provided “*sound underpinning*” for the work that has been done which is “*quite unique*”.

Sam Larsen went on to detail the sector’s emissions currently, acknowledging that since 2011, there has been a 14% reduction. This, he said, is based on the sector’s work on renewables and energy efficiency, but also a significant contribution has come from the decarbonisation of the electricity grid. However, this would not be enough to reach net-zero without considerably faster progress which is why the routemap is ambitious. The sector’s current operational emissions are 2.4 mega tonnes per annum which is a significant part of the UK emissions inventory and the majority of it comes from the emissions associated with the generation of electricity, of which the water industry consumes about 2% every day in providing water services to customers, largely through pumping and treatment energy. Around a quarter come from process emissions, methane and NOx released from biochemical treatment of sewage in wastewater treatment plants. Sam Larsen noted that everyday water companies treat the sewage from around 28 million connected homes in the UK.

He indicated that within the routemap, there are a series of pathways set out which have significant analysis and detail behind them, but for the purpose of today’s presentation he would be drawing out some common themes of that work. The first of these is the principle of applying direct reductions first, which follows the greenhouse gas protocol in putting greater emphasis on reductions before pursuing things such as offsets. Within this theme, the routemap looks at the use of low emission vehicles and water and energy savings. This included making greater progress in areas such as leakage and energy efficiency within the sector itself, but also water savings within the home. Water UK also tackle the process emissions challenge starting with greater monitoring to further inform thinking and greater research to look at technologies widely used in Europe. Finally, they looked to deploy greater use of renewable power.

Once setting out these reductions, Sam Larsen went on to talk about removing residual emissions. This included looking at nature-based solutions such as tree planting and peatland and grassland restoration. He referred to the table on his slide (please see additional attachment) which demonstrated the technology pathway which can achieve a reduction of 96% by 2030 on removals alone. Water UK will also be looking for UK offset markets to help close the final gap.

Sam Larsen went on to touch on the recommendations that Water UK have made within their routemap. He noted that the industry has set many commitments on itself in its own routemap and this is currently being progressed through the production of individual water company plans over the next six months which will detail how each company will progress net-zero. For the Government and policy makers, Water UK have called for an economy wide transition strategy to ensure there is a system-wide approach to finding the most efficient solution in reaching net-zero. This looks to avoid the pitfalls of sectors working in isolation and will help to address challenges, for example supplying water for a hydrogen economy. Water UK also support the NIC recommendation for greater duties for regulators to support and enable net-zero transitions across a range of industrial sectors. Additionally, they call for government policy that prioritises carbon reduction through initiatives such as white goods labelling, building regulations and greater adoption of SuDS in new builds.

Lastly, Water UK call for greater enabling of nature-based solutions by making them the default solution. He touched on wider pieces of reforms such as making the Water Industry National Environmental Programme (WINEP) less carbon intensive and the development of a UK wide offsets market which will help industries' transition.

The Chair thanked Sam Larsen and introduced the second speaker, Professor Ian Barker.

Professor Ian Barker, Vice-President Environment, Fellow and non-executive Director at the Institute of Water & Managing Director of Water Policy International Ltd

Professor Barker began by offering his congratulations to Water UK and the wider sector for a very impressive routemap and their commitment to net-zero by 2030 which is “*world leading*”.

He indicated that achieving this target is going to require innovation, with established processes needing to change and new skills needing to be learned. He said that failure is “*not going to be acceptable*” and that there is a bigger potential prize than net-zero, which is reversing climate change which is still going to pose a major risk to the environment and to water management once net-zero is achieved. With this in mind, Professor Barker explained that he would be speaking about how the opportunity that the net-zero commitment brings can deliver additional and complementary benefits for customers and the environment through wider adaptation and mitigation measures.

Professor Barker said that Sam Larsen had touched on a few of these measures already, but he wanted to speak in more detail about the scale of the challenge. In relation to natural sequestration through tree planting and peat restoration, he said he hoped this would be co-ordinated with river trusts and others in terms of catchment restoration on a holistic basis. This would reduce flood risk and improve water quality through nature-based solutions.

The first area he thought companies could go further on is leakage, which companies committed to halving by 2050 and reduce per capita consumption (PCC) over the same period. In the context of reducing emissions and improving water security, Professor Barker believed both of those ambitions need to be revisited. He explained that leakage in England is broadly at the same level that it was in the year 2000 and although companies are working hard to reduce this, the industry has not seen the step-change required. Leakage is still at around 3 billion litres of water per day, all of which serves no beneficiary use but is still pumped and treated using a lot of energy and chemicals. Professor Barker said that targets to reduce leakage need to be on the same timescale as net-zero.

The situation with PCC, Professor Barker noted, is of equal concern. Managing demand for water is integral to government policy in terms of achieving secure sustainable supplies of water. The Environment Agency's (EA) Water Resource Framework suggests that over 3,000 mega litres of water per day could be saved through water efficiency demand management measures and other cost-effective actions. As heating water for use in the home is also a major use of energy, there would be a double benefit in helping customers reduce their overall water consumption, as a complement to the work of the companies themselves. Professor Barker noted that there is an issue in the fact that water companies'

plan for water security is predicated in part on the success of demand management measures, but unfortunately few households know how much water they are using. There is little public awareness that the lack of water security will be as a result of consumers' own actions as well as that of water companies. He referenced the hot weather experienced in May when water demand was so high that some companies struggled to maintain supply and said that this did not bode well for future demand in hotter, drier summers to come.

Professor Barker explained that during his 25 years in the water industry, the basic actions have been “*discussed endlessly*” and he was pleased to see Water UK mention these in their routemap, including white goods labelling. The Department for Environment, Food and Rural Affairs (Defra) consulted on these measures in 2019 but in October 2020, the industry was told that the policy development in this area had to put on hold again. In the meantime, he said, consumers are using and paying for a third more water than is needed, in addition to using energy in hot water appliances, and water companies are still having to pump extra water. Professor Barker said that it was integral to water security that we do not continue to kick the metaphorical can down the road.

The second area Professor Barker thought the net-zero commitment posed a “*golden opportunity*” for is in the reduction of pollution incidents, which are at a similar level to 2008 in the water sector. As much of the routemap will rely on technological changes on the wastewater side, Professor Barker felt that water companies should be thinking about how these changes could minimise pollution from wastewater also. In his opinion, most serious pollution incidents are preventable and foreseeable providing there is comprehensive monitoring of networks and treatment works. He feels therefore it is a question of culture, mindset and management within the companies. The EA is calling for greater penalties for serious pollution and Professor Barker noted that the fines are trivial compared with water companies' turnover and profits. He said that the ambition to reduce carbon should not exist in isolation and it should be embedded into everything the company does and act as a catalyst to drive other improvements for the benefits of customers and the environment.

Professor Barker noted that he agreed with Water UK's policy recommendations but added that in terms of culture, mindset and reputation, the public interest commitments which run through the routemap could be complemented by an explicit environmental interest commitment. In the same way there is a social contract, he believed there should be an environmental contract so that it was clear that companies viewed the environment as if it were a vulnerable customer.

The Chair thanked Professor Barker and introduced the third speaker, Bart Schoonbaert.

Bart Schoonbaert, Director – Environment, Public Value and Governance, Ofwat

Bart Schoonbaert explained that he wanted to share more about what Ofwat are doing that is directly focused on or highly relevant to the “*critically important net-zero agenda*”. In a strategy that Ofwat published at the end of 2019, they committed to strengthening the sector's approach on climate change and mitigation and Bart Schoonbaert said that they were delighted to see the industry taking proactive steps to significantly reduce its carbon

footprint. He welcomed the routemap and said it is an important step towards the ultimate goal of embedded and operational net-zero by 2050. He said that Ofwat will continue to work closely with the industry in meeting this goal which will include scrutinising and challenging to ensure it is achieved efficiently, that water services are kept affordable, that companies tackling issues such as leakage and that customers are involved in reducing demand.

Bart Schoonbaert went on to set out some of the ways in which Ofwat are and will be playing their part. He indicated that they recently published their reporting requirements for companies on both operational and embedded emissions which sets out the need for clear, consistent, standardised, transparent and accessible data, as well as robust reporting. The Committee of Climate Change in its 2020 report also recommended that Ofwat seek to accurately measure the industry's greenhouse gas emissions. Bart Schoonbaert said that the right quality of data and reporting is important as it will allow for greater understanding and clearer demonstration of progress and performance, including where it can be improved or accelerated.

He indicated that Ofwat will also very shortly be publishing a paper on the key challenges and opportunities for future price reviews, including the next review (PR24). This will consider how price reviews can facilitate and enable the sector to meet their goals, such as net-zero, in a way that is as efficient as possible. Bart Schoonbaert explained that similarly to the companies themselves, Ofwat see a big role for innovation and cross-sector collaboration which is why they have an innovation fund which will be opening soon for its first phase. A key theme of this is responding and adapting to climate change and meeting the sector's net-zero ambition so Ofwat are expecting proposals and submissions which focus directly on this.

Bart Schoonbaert noted that Ofwat themselves are working as a part of the UK Regulators Network's climate working group to share and disseminate learning and cross-sectoral approaches to climate change and mitigation. A lot of Ofwat's work, he said, is going into major industry investment which then feeds into the industry price review. For example, Ofwat are working alongside Defra, the EA and others on reforms to the WINEP, focused on making sure that money invested leads to greater environmental outcomes, including helping to meet net-zero goals. They are additionally working within the Regulators' Alliance for Progressing Infrastructure Development (RAPID). Within RAPID's strategic schemes to address long-term water resources, companies are required to set out carbon costs and mitigations. Similarly, Bart Schoonbaert noted that it is a requirement of the Water Resource Management Plans (WRMP) draft guidelines for companies to account for greenhouse gas emissions within their options, which will also shape the regional plans being developed.

Lastly, Bart Schoonbaert reinforced Ofwat's strong focus on promoting, enabling and facilitating the greater adoption of nature-based solutions, which is also a theme of COP26. He said that everyone knows that such solutions wherever feasible will lead to multiple environmentally beneficial outcomes including net-zero and the reduction of greenhouse gases and Ofwat therefore want these to become mainstream options for companies. The Chair thanked Bart Schoonbaert and introduced the final speaker, Paul Horton.

Paul Horton, Chief Executive, Future Water Association

Paul Horton began by introducing the Future Water Association as the business support organisation that aims to shape the future of the water sector. He explained that it has hundreds of members from across the whole water sector, from utilities through to entrepreneurs. Climate change is a central focus for the organisation and a lot of work is done through their own innovation programme called Water Dragons.

The organisation also coordinates the Future Water Networks which held an event a few weeks ago that focused on net carbon zero, the basis of the discussion here would form his contribution today. Paul Horton indicated support for the routemap as outlined by Water UK and that the supply chain was pleased to be linked to the development of this. He noted that people and skills are critical to its advancement as is the supply chain which represents about 70% of value across the sector. Paul Horton said that it has been easy in this difficult year to forget about climate change, but it is still there and as the population increases and infrastructure ages, it presents further challenges. He indicated that data is part of the solution to climate change and reaching net-zero.

He went on to say that working remotely in 2020 has presented “*huge opportunities on the journey to net carbon zero*”. Future Water Networks surveyed hundreds of people who felt that working from home had led to real change including allowing assets to be viewed remotely. They also looked at smarter sewage networks, data-led solutions and new ideas and emerging technology.

Paul Horton touched on the key areas of focus for reaching net-zero, some of which had already been mentioned. He highlighted in particular, the use of smart metres which he said have a role to play in helping consumers to be informed and sensors across the network. He also felt there were opportunities to reimagine aspects of Asset Management Period (AMP) 7 and 8.

He went on to detail where the supply chain best fits into the net-zero journey. The first area is in helping companies to address leakages through detection and also water audits, which can be done on a remote basis. The second area is pipe corrosion, where there is now interesting work emerging which means pipes do not need to be replaced but managed in a different way. There are also innovations in sewer designs with AI systems being deployed more often.

Paul Horton set out the Future Water Association’s recommendations to transform the water sector. This included remote monitoring which he had already touched on, as well as the use of satellites which he notes are increasingly part of the agenda and are providing huge amounts more data. Paul Horton indicated that small changes in chlorine dosing can lead to big changes across the whole of the pipe network which would assist in sustainable water systems. He lastly noted that greater thought was needed in rethinking treatment systems.

Paul Horton said that to practically achieve net-zero, the sector needs to utilise sensors, instrumentation, automation and analytics to move to predictive, and potentially adaptive, asset management. The sector also needs to reduce pumping through greater use of local

treatment and removing storm water from sewers. He went on to say that the industry could be more flexible in the way that energy is used across the water industry and this could be done through offsetting pumping or it could be by working with the water companies to look at things differently. He explained that one of the areas that they have looked at is how energy from mine water systems could be made available. Paul Horton reminded however that in a data-driven world, we cannot forget the cyber challenges and the cyber assessment framework will have a role to play in how fast the industry moves towards data driven solutions.

Paul Horton concluded by saying that the Future Water Association are calling for more support from regulators on developing new techniques and ideas. He was pleased to note the launch of the Innovation Fund from Ofwat which had been mentioned by Bart Schoonbaert. He said that support from regulators could be used in other areas such as those that have an impact on customers supplies, developing new ideas for mains repairs and the advancement of technology across the country. Lastly, Paul Horton asked if in the context of the Environment Bill, whether the Government can be looking across the whole of the catchment to look at obstructions.

Question and Answer

After the presentations from the speakers, the Chair invited questions from participants. She began by asking a question herself which asked each speaker what they would like to see come out of COP26 to enable them to deliver on the challenges of meeting net-zero.

Paul Horton said he would like to see a drive towards bringing innovation forward, which he sees day in, day out, within the supply chain. He said there is knowledge and potential and it is almost being held back. He said he felt the past months have shown that change is possible when it is urgently needed so he thinks it is time to unleash the power of the supply chain and the innovators because the technology is available to make the change.

Bart Schoonbaert said that he was positive that things are moving in the right direction, but he would like to see a change in mindsets and that there are a range of solutions to climate change rather than just the traditional solutions.

Professor Barker said he would like to see an introduction of a sense of urgency. Water companies have set a target of 2030, but this needs to be reinforced in terms of policy and regulation. He noted that his work with the OECD shows that there is a huge amount to learn from other countries and we also can share great work. He concluded that sharing innovations, both technologically but also regulatory and policy innovations will take us a long way.

Sam Larsen said that he believes COP26 is a real opportunity to show international leadership. Water companies in the UK can share about their work to bring others up to that level of ambition globally but also to set out how water is central to so many other parts of decarbonisation including hydrogen.

Co-Chair of the APPWG, Alex Davies-Jones MP (Lab, Pontypridd) said that the only way the industry is going to achieve net-zero is by bringing customers and consumers along with us on the journey and asked how the speakers would suggest the best way to do this is.

Sam Larsen said that the Department for Business, Energy and Industrial Strategy (BEIS) is looking at public engagement as a part of net-zero in 2021. He added that there a good parallel with the work that the Climate Assembly has already done on public engagement and one of the strong themes that came out of this was water within homes and how the amount of water being used in misunderstood. Sam Larsen believed that there is a real opportunity within BEIS' work to bring the water theme through and build a sound platform for decarbonisation not just within the water sector but broadly across society.

Paul Horton said his hobby horse is that water should be discussed more broadly in the national curriculum from a young age which happens in other countries. He also noted that the pandemic has shown that engagement meetings between water companies and customers now can reach greater numbers by being conducted online which should push industry to reimagine how discussions go forward can be conducted to spread the message more widely.

Professor Barker offered an observation of a process of co-creation to deliver water security which is taking place in the Regional Water Resources Planning Groups. The Groups to their credit, are bringing in a huge range of stakeholders and consequently members of the stakeholder groups to develop resilient sustainable plans. Professor Barker said companies need to maintain this widespread collaboration and engagement when they come to draw up their individual plans. He added that COVID-19 has shown that people value their natural environment and by involving young people and helping them to understand the importance of water.

Bart Schoonbaert said involving customers is critical and that there is some way to go here. He felt that it was not just about water use but also about how customers use the wastewater system. He added the important mindset we need to reach is about making customers understand they are an integral part of the system rather than passive recipients of the services. Secondly, he said we should be supporting customers in that mindset through building and housing standards to use less water.

Douglas Chapman MP (SNP, Dunfermline and West Fife) said that Scotland is looking closely about what can be showcased at COP26 and asked what two or three things could the water industry be showcasing in particular.? He also agreed on earlier points about engaging with young people better.

Bart Schoonbaert said that the commitment to net-zero by 2030 in itself is something the industry should be showcasing at COP26 and additionally the industry's focus on nature-based solutions.

Professor Barker said that one of the things the UK should be showcasing is the fact that it has economic regulators who work hard to ensure that companies deliver efficiently to meet their environmental and social obligations and serve their customers. He said this is very important in the context of net-zero which is a huge challenge, and we need to have confidence that these companies are delivering it cost effectively and sustainably.

Secondly, he said he would like the UK to do a better job at showcasing the innovation that takes place as this does not happen at international water congresses. Thirdly, he said that the UK should showcase its innovative regulation in relation to drinking water quality. The UK has amongst the best drinking water quality in the world which is down to the hard work of companies and the regulators scrutiny of them. This is not well understood and COP26 provides an opportunity to share this further.

Sam Larsen said the quality and comprehensiveness of the routemap is unique, certainly at the industrial sector level. Unlike other routemaps it is not a “*plan to a plan*” it is the way in which the sector can decarbonise. Secondly, he would want to showcase, that if the plan is implemented and fully supported across society, the way in which it protects customers. This is an important theme that will present during COP26 which will need to discuss practicalities of how not to leave the vulnerable behind.

Paul Horton said that COP26 should highlight how resilient the water sector is, which is not the case all across the world. Secondly, he felt innovation was vitally important to showcase, for example through projects such as Scottish Water Horizons’ Border College project. He also felt that as well as showcasing how the sector is reducing carbon, COP26 should also highlight how the water industry is rethinking how they operate as a whole. He added that there are financial mechanisms available, over and above the regulated price cap system which should be recognised at helping innovative work.

Bart Schoonbaert said Ofwat are in favour of these co-funded opportunities. He added that for COP26, the UK should highlight the cross-regulator system that is in place which he described as “*mature*”. It has served the country for a long time and for very good reasons, but they are now faced with major challenges which were different from before. The UK should therefore showcase how the regulators have been able to adapt to meet these challenges.

Conclusion

After the question-and-answer session, the Chair concluded the meeting by thanking the speakers for their contributions. She said there had been a lot of agreement and appreciation for Water UK’s routemap and recognised that the ambitious self-set target, together with resilience will continue to be a theme for next year in her opinion.

She said that next year the Group will be considering how they take forward the interesting items raised today to feed into COP26 further.

She wished everyone a Merry Christmas and thanked them for attending.