THE WATER REPORT

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MARCH 2016

City limits?

Water 2020: investors seek clarification on CPI and concessions on carving up RCV

COMPETITION WATCH

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THE WATER REPORT
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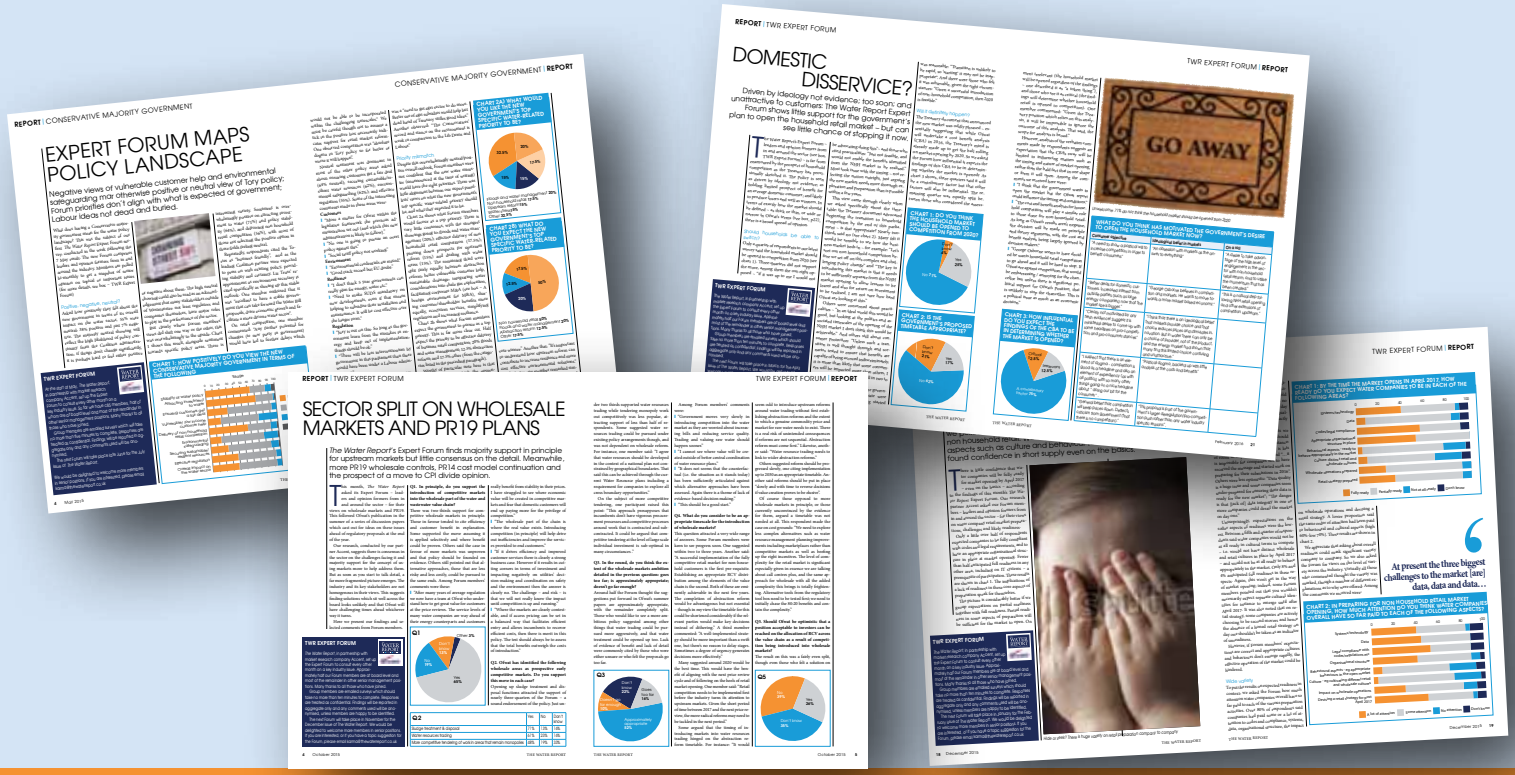

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Publisher: Kew Place Limited

EDITOR'S COMMENT

Affordability is the key to resilient infrastructure

According to water minister Rory Stewart, the country is facing "a real public policy choice" over whether to prioritise investing in resilient infrastructure for the future or keeping bills down today (see report, p10-13). This choice doesn't require a huge amount of thought: we will absolutely need robust water and wastewater infrastructure for as long as there is life on Earth, so neglecting investment now to save a few quid would be both selfish and short sighted.

At this point in such discussions, someone usually says increased resilience doesn't have to come at a higher price. They have a point, and of course where solutions can be found that tick both boxes they should be pursued as a priority. A good example of this is detailed in our feature on Albion Water, on p14-17.

Markets too can be employed to keep the cost of delivering more resilient infrastructure down. Again, this is being pursued.

However, to fully meet the challenges of climate change and expansion, markets and win win solutions won't be enough alone and it is inevitable that water bills will have to rise. A new reservoir for London, for instance, will come with a price tag. I appreciate this isn't a very fashionable view at the moment, but water and sewerage services are as cheap as (in fact, far cheaper than) chips and most households could pay more – may even volunteer to if what is at stake can be effectively conveyed.

DEFRA's emerging thinking on resilience is to be commended. Its resilience "roadmap" published on 2 March sets in train a bold, long term vision for building a more robust sector – and one that will be underpinned by a Strategic Policy Statement and National Infrastructure Commission recommendations. But affordability is the missing link: what happens to those who can't afford to pay? Water companies have stepped up in this space and Ofwat's thinking is maturing (see report, p18-19). But affordability policy needs to match resilience policy if everyone is to benefit.

Almost certainly, calls for national affordability support will fall on deaf ears in the current era of austerity. But the government could take steps to ease the pressure on hard pressed households – for instance, by legislating to tackle the £21 bad debt cross subsidy on every bill, and by sharing DWP data with water companies to help them target their support effectively.

Karma Ockenden, editor,
The Water Report

Feedback, comments and suggestions very welcome.

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CITY CALLS ON OFWAT TO SHARE CPI VALUE NEUTRALITY ANALYSIS

Financiers demand details and an enduring commitment that they won't be left out of pocket by indexation change.

Analysts and investors at Water UK's City Conference on 2 March pressed Ofwat to share details on exactly how it will ensure the transition from RPI to CPI indexation at PR19 will be value neutral. Matt Cuchra, KPMG partner, corporate finance – power and utilities, asked Ofwat chairman Jonson Cox whether there was scope for the regulator to share its numerical analysis and model on how value neutrality would actually be interpreted. This followed work KPMG has conducted on behalf of United Utilities, scrutinising options for indexation change (see box on page 6).

Cuchra was supported in his call by subsequent commentators. Thames Water's chief finance officer Stuart Siddall said the model sharing suggestion was "eminently sensible" while Peter Dooley, managing director, global banking & markets at RBS, likened predicting the gap between RPI and CPI to "pin the tail on the donkey", adding that value and revenue neutrality is difficult to demonstrate given the many regulatory "levers" in play. He said it would be useful for Ofwat to share its plans for NPV neutrality and to make its commitment enduring.

Cox responded positively to Cuchra's suggestion, saying he would take away the idea for further consideration. He said though that Ofwat had been "at pains" to reassure investors on the value neutrality of the RPI-CPI true-up and that the market needed to "trust us".

Generous plan

The transition to CPI was one of two main financing issues that occupied discussion at the City Conference (see report on p8-9 for details of sentiment towards new markets). Dooley said investors are asking why the regulator favours CPI and why the shift is being proposed now? Also, whether the transition will be transparent, how small companies in particular might be affected

Crystal clear: with huge uncertainty over the future RPI/CPI gap, investors want clarity on Ofwat's commitment

[the water-only companies have a larger proportion of RPI-linked debt within their financing structures so are particularly exposed] and how might Ofwat demonstrate/guarantee NPV neutrality.

Cox listed "compelling" reasons to move away from RPI, including that it's no longer credible and customers will be exposed to less volatile prices under CPI. He rhetorically questioned how the regulator might defend itself to the likes of the National Audit Office and Public Accounts Committee (both of whom have recently criticised Ofwat's track record) if it is seen as having failed to have sufficiently protected customers. With a nod to his audience, he remarked that should the regulator lose its credibility "investment probably suffers".

Cox also pressed home the point that Ofwat had already shifted away from its starting position of moving to full CPI indexation of bills and RCV. It had, Cox said, listened to evidence brought forward on the amount of RPI linked debt in the sector (he estimated this to be around one third of total sector debt – Moody's analysis suggests the figure to be nearer half) and to concerns about the speed of transition. Subsequently, Ofwat had shifted to supporting the 50:50 CPI/RPI plan (see box). He remarked the proposal it put forward in December was "more generous that it might have been".

Finally he told delegates that stakeholders must treat Ofwat's Water 2020 proposals as a package rather than "decrying the unwelcome bits while banking the good bits". He described its proposals in the round as "firm and balanced" and reminded everyone that Ofwat would put forward Water 2020 licence changes as a batch.

Investor issues

These assurances failed to cut much mustard with the analysts and investors present at the City Conference, however. Their objections and concerns, aired throughout the conference, included the following.

RPI is not defunct: Dooley snubbed the idea that RPI was no longer credible. He pointed out that the UK Debt Management Office (DMO) has been consistent in its view that it will not issue CPI linked debt for the foreseeable future. He gave details instead of a DMO syndicated offering of RPI-linked gilts maturing on 22 November 2065, posted on the 12 February. Worth £2.75bn, this was the sixth and final transaction of the DMO's 2015-16 syndication programme, which has raised £17bn via four sales of index-linked gilts and £9.5bn via two sales of long conventional gilts.

The CPI market may take years to emerge: Orlando Finzi, director, M&G Investments, said he wasn't seeing a demand for CPI currently and questioned Cox about what would happen if a liquid CPI government bond market didn't emerge? Cox acknowledged that the speed at which a CPI debt market might develop was "an open question". However, he said he had faith that the market would respond: "We do know financial markets can move quickly." He also cited the statistic that three quarters of pension funds are either wholly or partially CPI linked at present, so the CPI market is active.

Both Finzi and Dooley later queried that figure, saying it did not reflect their understanding. Dooley added that Ofwat's approach effectively put the cart before the horse in creating CPI demand and expecting the market to respond. "That didn't work for airports in Spain," he recounted. Anglian Water chief executive Peter Simpson asked Dooley how the likes of RBS could help Ofwat out of a corner, should a CPI market not develop as hoped? Dooley said it was not for the likes of his company to solve. "The key stakeholder is the Debt Management Office and they have concluded they shouldn't do anything." He suggested that interested parties could lobby the DMO for a CPI instrument.

Hedging could prove expensive: Finzi raised the prospect of increased costs for companies (and hence ultimately customers) should investors be forced to buy CPI debt. "If you have a liability, you have to find a bond to match it but without a government bond curve, you will have to

WATER 2020 RPI-CPI RECAP

Ofwat's December Water 2020 paper proposed phasing in the transition from RPI to CPI. Indexation is applied to both prices and Regulatory Capital Value (RCV) in setting price controls, with indexation of the RCV impacting prices over time. The regulator intends to move to indexing both elements to CPI at PR19. It has put forward a transition mechanism under which it will continue to apply RPI to half the RCV in the period 2020-25, with the other half moving over to CPI. Correspondingly, it will set returns by applying an RPI based rate of return to the RPI proportion of the RCV and a CPI based rate of return to the remaining (CPI) proportion of the RCV. It said its application of CPI to the RCV and allowed returns will be symmetrical, ensuring that nominal returns to companies are revenue neutral over time.

The intention of the 50:50 arrangement is to keep the costs of hedging down for companies (for the difference between RPI and CPI, given their substantial amount of RPI-linked debt) and to help manage the impact on bills (which could show a one-off increase in the short term, though bills would fall in the future).

The proportion of the RCV that will continue to be linked to RPI takes into account the notional gearing assumption from PR14 and existing levels of industry debt. On a notional basis, 62.5% of RCV is funded from debt. 75% of that is embedded, so that comes to around 50%. Therefore all embedded debt will benefit from RPI protection.

Some companies will have RPI linked debt exposure of less than 50%, while others (particularly the higher geared) will be exposed to more than 50%. Ofwat sees this as a matter of company choice and responsibility.

Ofwat's approach effectively puts the cart before the horse in creating CPI demand and expecting the market to respond

build insurance into that price." This, he said, would be "an inefficient hedge".

Will the move definitely be to CPI? There is uncertainty over whether the government will ultimately favour CPI – the generally used measure of inflation – or CPIH, which is CPI including the costs of owner-occupied-housing. Finzi asked Cox if Ofwat could make its decision on the use of CPI in setting price controls before the government has announced its thinking on this; was there a cut off date? Cox said CPI was the measure Ofwat is currently considering.

Regulatory/reality disconnect: The regulator has told companies in no uncertain terms that bill rises on the back of the changeover to CPI would be undesirable. It expects mitigation of short term impacts (higher bills) over and above the 50:50 phasing policy, so bills are smoothed

over time. Ofwat expects companies to use pay-as-you-go tools and run off rates to engage with customers and manage those impacts. Monica Merli, managing director, infrastructure finance at Moody's, highlighted a potential risk from moves to keep bills down today by deferring rises into the future. She said: "Continued deferral could lead to a disconnect from the real economics of the sector."

However, CPI sentiment at the City Conference was not entirely negative. Pennon chief executive Chris Loughlin, for instance, said Ofwat's position was "not irrational"; that RPI is being phased out so the move to CPI "is a question of how and when not if". He offered that a longer lead time than Ofwat had proposed might be beneficial, but that if companies have to do it at PR19, they'll just have to get on with it and "look for opportunities" on managing costs. He concluded: "There's no point crying over it." TWR

UNITED UTILITIES AND KPMG ON INDEXATION CHANGE

United Utilities has published a paper suggesting how Ofwat might smooth the transition to CPI. Specifically, the paper seeks to contribute to the debate on the nature and depth of the commitments required from Ofwat to deliver revenue and value neutrality. UU starts from the premise that the interests of customers and investors in this matter are aligned: neither investors nor customers would stand to benefit from an approach which incurred unnecessary costs or damaged trust and confidence in the sector.

It puts forward four key suggestions:

A two stage transition: A fully functioning CPI linked debt market is likely to take many years to emerge and this is a prerequisite for efficient use of CPI based financing. In the short term, to address the customer legitimacy issue, bills could be presented to customers on a CPI basis, but companies could be allowed to continue to use RPI to raise financing from investors. To offset concerns that such an arrangement would be unsuitable in the long run, Ofwat could commit this year to moving to its 50:50 RPI/CPI approach at a trigger point. "Such a trigger could be based, for example, on a certain % or monetary amount of government or corporate debt having been issued in CPI terms, or some other metric which would give confidence to investors that incentives to move the financing basis of the companies towards CPI, in line with the new customer presentation of prices, would happen only once a suitably deep market had evolved."

The RPI/CPI gap: UU observed the gap between RPI and CPI cannot be predicted with any certainty. "Because of this, any commitment to revenue and value neutrality needs to make good any difference between the forecast gap and outturn gap. Whilst Ofwat's broad commitment in this area is welcome, the way in which it will be achieved needs to be better exposed. This can be delivered though detailed modelling and commentary as to the proposed mechanism."

Ofwat should explicitly share its models and methodologies on value and revenue neutrality "to build trust and confidence in the degree of Ofwat's commitments and the practical means through which they will be discharged". UU noted that KPMG's work to interpret and apply the approach outlined in Water 2020 (see below) had clearly illustrated that "gaps in understanding or gaps in methodology at this stage are such that there is considerable uncertainty as to whether Ofwat's approach is sufficient to fully deliver the commitments it wants to make".

Ofwat's commitments to revenue and value neutrality need to be enduring over the very long term, especially given the expectation that CPI based returns due to investors will be deferred into future periods through the pay as you go mechanism. "Achieving confidence that this will be the case is by no means impossible, as evidenced by investors' continued faith in the RCV, and we believe Ofwat can achieve this by expanding on the basis it expects value and revenue neutrality to become an enduring commitment".

UU concluded that "the long term interests of customers will be best served if this evidence is collated and consulted upon as part of a joint process with other stakeholders over the coming months".

UU's views draw on a research report it commissioned from KPMG, which set out to quantify the impact of the CPI change proposed by Ofwat on companies and, by implication, customers. Its overarching question was: "whether the potential benefits to customers (lower bills) could be realised or whether they would be offset by the costs of the change, where such costs might be passed on to customers in the form of specific mitigation mechanisms, higher required returns, costs of implementation, and a change in the risk of companies' financial profile".

KPMG compared a "do nothing" factual case of continued RPI indexation to several counterfactual cases reflecting different potential mitigation mechanisms, given "Ofwat's Water 2020 consultation is not clear about which mitigation mechanism will be actually applied, over what period of time, or how it might change in the future." The aim is to ensure any final mitigation policy is "water-tight".

In general, the report found the costs of the change are likely to be higher the earlier it is implemented, noting "water companies are currently ill-equipped to minimise these costs due to undeveloped corporate CPI-linked markets and limitations on their ability to re-profile cash flows over time".

UU's paper *Changing the basis of indexation from RPI to CPI* and a summary of KPMG's research *The impact of a change in indexation of the water sector*, can be found at http://bit.ly/1RVAZQY

THE WATER REPORT

EUROPE WATCH

IN BRUSSELS THIS MONTH:

BREXIT REFERENDUM: KEEP CALM AND CARRY ON…FOR NOW

As this is a column about what is happening in Brussels and the EU, I suppose I had better start with "Brexit".

The uncertainty about our future in the EU is in the minds of UK companies at the moment. One of the most important questions is: would the European Investment Bank (EIB) continue to work with the UK water sector if we were to leave the EU? This is not surprising, because in terms of water sector investment, the EIB does more here than with any other EU Member State. This is one of our trump cards with regards to our reputation in Europe, and we should be very proud of it.

My strong impression from talking to the EIB recently is that if the UK votes to leave, the bank would continue to invest in the UK water sector during the negotiation period. The EIB expects this to go on for "many years" so right now the bank does not look at the UK with any uncertainty.

The key question will be what the UK government will do with its 16% share in the EIB, and whether it will sell or retain its holding. But again, this is a decision many years away. Also, it is worth bearing in mind that the EIB does invest with European Free Trade Agreement (EFTA) countries such as Norway and also outside the boundaries of the EU.

Neil Dhot is secretary general delegate at EurEau, the European Federation of National Associations of Water Services. Neil will be providing an update from Brussels each month.

So in the short term it is business as usual. Longer term – who knows? And unfortunately it is the same situation on the policy front: absolutely no clarity on what would happen about all the various water directives and other EU legislation that we comply with. I think it is best if we just "keep calm and carry on" for now, and just wait and see what happens in the referendum.

Micropollutant push

One issue I know makes the water sector across Europe quite anxious rather than calm, is micropollutants. I think we are all familiar with the control at source vs treatment approach. The European operators are looking to be more resolute on this issue with the Commission and push harder for action on the source control and polluter pays principles.

There are some specific issues that the European operators will be concentrating on. These include the Priority Substances Directive, which required the European Commission to come up with a strategic approach to pharmaceuticals in the environment. This was supposed to come in 2015. We are still waiting – and reminding the Commission we are still waiting.

On pesticides, their metabolites and transformation products, EurEau is calling for adequate drinking-water related criteria to be taken into account when pesticides are authorised for use.

Coming out in the wash

Chemicals regulation of textiles is also on the agenda. Approximately 80% of textile articles are imported from non-EU countries. In many cases there is a lack of knowledge about chemical substances in textiles. European water operators say more than 10% of the substances used in the textile industry are identified to be of potential concern for human health and 5% are expected to have a very harmful impact on the environment – and many of them are washed away from households to the urban water cycle.

Finally, and not surprisingly, there is a call for better use of REACH to control hazardous substances entering the urban water cycle and to fulfil the requirements for good chemical status in the Water Framework Directive.

Chances of success and achieving change? Slim, but we will keep at it anyway. TWR

RBS' INVESTOR TAKEAWAYS ON BREXIT

At Water UK's City Conference this month, RBS MD of global banking & markets Peter Dooley provided an overview of key takeaways from investors on Brexit:

- A weaker GBP is the most liquid representation of Brexit risk at the moment.
- Positive view of 23 June referendum date – definitive timeline and four months (from the announcement on 20 February) lead time to adjust portfolios.
- There is an expectation of an increase in price action, volatility and flows as there is further clarity and information around the debate and polling. Trading will be concentrated in the several weeks in the run up to the vote, similar to the Scottish Referendum in 2015.
- Some accounts took action in H2 2015 and do not see anything to be done in the run up to the referendum.
- GBP credit is still functioning with the primary market open, albeit at the right net interest cost for low beta names, with accounts being particularly selective.
- Several accounts are taking more defensive positions in relation to UK banks – trading out of large UK banks for other European rivals, and other issuers.
- Consensus is that if the UK votes to leave the EU, then there may be a market cliff effect but also a ripple in Europe.

SEGMENTING RCV WOULD SHAKE WATER'S WHOLE INVESTMENT PROPOSITION

City tells Ofwat to "look after the mothership".

In the investor nervousness stakes, Ofwat's Water 2020 proposal to segment water companies' Regulatory Capital Value (RCV) ranks alongside its proposed move away from RPI indexation (see report p4-6), judging by sentiment at Water UK's City Conference on 2 March. Financiers and companies lined up to express concern that the regulator's plan to slice off sludge and resources RCV to enable those markets to open from 2020 messed with the fundamental investment proposition of the industry.

Hans Peter Portner, executive vice president, head of sector and theme funds at Pictet Asset Management, said he was "fearful of salami tactics" and urged the RCV be kept "watertight". He explained non household retail separation hadn't caused him any difficulty because the RCV was unaffected, but segregating sludge and resources RCV "bites into the investment proposition of the entire industry" and opens the door to further splits.

His sentiment was echoed by Orlando Finzi, director, M&G Investments who urged Ofwat to "look after the mothership". He noted the RCV is already artificially small [a legacy of privatisation] and that plans to pinch bits from either end of the value chain make debt investors feel vulnerable. It is "very hard not to take what has been proposed negatively," said Finzi – adding behaviour around regulated asset value is especially important given the absence of a hard and fast investor contract. Peter Dooley, managing director, global banking & markets at RBS, added that stripping back the RCV would mean the terms currently available on the "mothership" would deteriorate, so an inevitable outcome is more expensive debt.

Verity Mitchell, HSBC's director of utilities research, cautioned that UK water competes for investment internationally and that investors are very interested in companies where RCV is growing rather than shrinking. She said in particular that UK water is in competition with Italian regulated business at the moment, "and they [Italians] don't have the structural challenges you face".

Mitchell, Portner and Dooley all listed maintaining the integrity of the wholesale business as top of their financing wish lists. But the concern around RCV segmentation wasn't confined to pure financiers. Pennon chief executive Chris Loughlin said the issue was "as important if not more important than CPI". "The industry just got 11% smaller," he said, referring to the proportion of total RCV due to be split off under current plans. He said this was "not an insignificant amount"; in fact it amounted to a "fundamental change" which "shakes quite firmly the whole investment proposition". Loughlin tempered his comments by pointing out that Ofwat wasn't intentionally trying to destabilise the market and was in listening mode: "Clear, strong messages are being heard," he said.

New markets

Looking at sentiment towards new markets more broadly than just in RCV terms, the picture is more positive. Many conference delegates expressed that they could see the logic in opening up sludge and resources to competition, but would not welcome further reform at this stage without good reason and without seeing how phase one beds in. Andrew Cox, a director at 3i, said: "Sludge and water resource markets make a lot of sense, but we should not dismantle the value chain for the sake of it… Change should not be politically imposed or irrational." He commented that Ofwat was not pursuing reform for the sake of it at the moment and that there is welcome dialogue going on around Water 2020.

Monica Merli, managing director, infrastructure finance, said Moody's needed to see the detail on new markets but that "alarm bells aren't quite ringing yet". Dooley reported that since Ofwat's 2020 City briefing in December, both debt and equity markets have perceived more risk but there has been little financial impact. He reminded delegates that efficiency, investment and far reaching improvements have been delivered by the private sector since privatisation on the back of faith in the regulatory framework and RCV. He also pointed out that the industry's funding requirement continues so the message is: don't kill the golden goose. He observed that Water 2020 has "not killed the goose that lays the golden egg yet".

Individual markets

In terms of the merits of the individual markets Ofwat has advocated opening, water resources seemed to find widespread support at the Water UK event. Southern Water chief executive Matthew Wright said markets should be targeted where problems are biggest, with water resources and flooding the clear front runners under that definition. 3i's Cox added that water resource markets would be important for building resilience.

A market for sludge did not sit so comfortably with Wright. He said it would be more complex than is commonly thought; not all sludge is the same, other organic waste can't be codigested with it, and spare capacity is uncertain. Wright went on to caution against dismantling the value chain without full consideration of the costs and benefits "as there are lots of benefits that derive from integration". He suggested in fact that closer cooperation between existing parties rather than driving divisions and inviting new players in could be order of the day. For instance, he explained that through Water Resources South East, southern companies are working together and that could ultimately lead to a Water Resources Management Plan for the south east. "We are not islands,"

observed Wright. He added that there is already lots of competition for the market – in Southern's case "all our capex spend and half our opex spend" has the benefit of competition – and hence that competition can exist without value chain breakup.

The point was picked up by Albion Water chairman Jerry Bryan: "There are competitive opportunities throughout the value chain but the value chain does not have to be dismantled to access them." He cited in example Albion's provision of a broad range of sustainable services to new housing developers, which can offer environmental and commercial benefits over and above what incumbents put on the table (see feature, p14-17). He reported that Albion had managed to slash potable consumption at some sites to half the national average while keeping costs below those of traditional solutions – and all within the existing regulatory framework.

Wright, whose company operates in one of the country's most water stressed areas, backed Bryan's position. "Competition at the margin makes perfect sense: if Jerry can deliver 80Ml/day, that's great – there could be a market for incremental resources. There is also potential for short term trading pools – for instance, paying farmers not to farm and instead feeding that water back into a pool. That would act like peaking plant in energy."

Another of Ofwat's Water 2020 proposals – to allow competitive procurement of projects worth £100m or more – drew mixed comment. Ofwat chief executive Jonson Cox hailed the groundbreaking and potentially trend-setting Tideway deal as a great success, citing the undeniably impressive 2.49% cost of capital and average bill increase of just £25 (well shy of the £80 expected). Thames Water's chief finance officer Stuart Siddall also praised the outcome. Dooley however called suggesting Tideway-style competitive procurement for £100m projects "utterly barking," given factors including the protractedness of the process and the enormous legal cost – especially in the absence of a government support package. That is "magic without the hat" he said.

Outlook

The introduction of new markets in water, while being largely acceptable to investors in principle as they stand, will have knock-on affects. Finzi pointed out that debt lending is long term and he has to price in today the possible impact of market reform. "We can't ignore the talk of competition and the potential for downsides is quite substantial."

Ofwat's Cox meanwhile sees a shift in investor attitude on the horizon. "Gone are the days of buying a slice of RCV and gearing it up" he said, adding investors must align their interests more with those of customers. He noted opportunities for further balance sheet gearing are limited and "we may see a shift back to equity".

Ofwat will inevitably have to manage the changes ahead, which will include licence changes, very carefully. David Black will be in the driving seat; he has been confirmed as Ofwat's Water 2020 director. The regulator has made a good early start; Cox pointed out that it is only one year into AMP6 and two rounds of Water 2020 consultation are already done. Going forward, it needs to finely balance providing predictability for the industry with being flexible enough to "trim and adjust" its strategy in response to developments, said Cox. It will also have to balance encouraging companies to take the lead with the need to live up to public and political expectations of a tough regulation. Cox told the conference reform was only just beginning and that "there will be no complacency: complacency is the enemy of innovation."

For debt investors, incremental and well understood change is key. Dooley said it is crucial that investors can see the rationale for policy developments and have the opportunity to feed in to reform proposals. "Debt investors are in the sector for the long term so won't sell out on a particular day because of something Ofwat has said. But it is important for them to be convinced on the 'why' of change; the 'how' can follow the 'why'."

Loughlin echoed the point, saying change will be resisted if it is perceived as "imposed change or irrational change" – but that Ofwat's actions did not fall into that category. The regulator is, he said, in a "very different place" now [than at the time of the Section 13 wrangle] and the Marketplace for Ideas initiative showed it is making a genuine attempt to engage with companies. Loughlin concluded that "whatever we do, we must retain our investment proposition".

For Portner, less is more: overly high regulatory activity rings alarm bells. Unlike in the established wisdom where high risk offers the prospect of high return, in water the opposite is true: the lower the risk, the better the return. Portner said Ofwat's only mission as a regulator is to de-risk the industry; it has been the "gold standard" on this – "up to now". Put simply, low volatility of the operating environment leads to better stock price performance and asset growth leads to higher valuation. He concluded: "Dull is good. If you want excitement, buy a tech stock or something." TWR

SHORT SHRIFT FOR HOUSEHOLD RETAIL

Few of the City Conference speakers had positive things to say about the prospect of household switching. Ofwat 's Cox expressed disappointment that some industry leaders had gone public on their opposition, saying opening the domestic market was a legitimate challenge from a pro-competition government. He found some support from Pennon's Loughlin on that, though Loughlin did remark that the left field announcement cut across the Cave Review principle of doing things one step at at time.

Lots of speakers and panelists said they would put a hold on household switching if they could, at least until the non household market has been tried and tested. RBS' Dooley remarked that domestic energy retail hadn't been a tremendous success and that Cox in his presentation had focused on the "how" rather than the "why". M&G's Finzi expressed the view that residential retail was politically motivated, lacked a coherent strategy and had the wrong drivers.

SQUARING THE CIRCLE OF RESILIENT INFRASTRUCTURE AND AFFORDABILITY

DEFRA's new "roadmap" on resilience envisions creative and extensive investment for the long term – and scopes out the policy landscape to underpin it. But that raises questions for bills.

Water minister Rory Stewart this month said the country is facing "a real public policy choice" over whether to prioritise investing in resilient infrastructure for the future or keeping bills down today. He was responding to a question from Wessex Water chief executive Colin Skellett at Water UK's City Conference. Skellett asked for a steer on how to "square the circle" of the messages coming from the two preceding presentations: Stewart's, which scoped out a bold vision for infrastructure investment to rival that of Bazalgette and the Victorians; and Ofwat chief executive Jonson Cox's, which put bills, debt and affordability firmly on the agenda.

Refreshingly frank, Stewart responded that "a normal politician would say you can have your cake and eat it, but there is a real public policy choice here". He observed that the priority for the past five years has been to keep bills as low as possible, but pondered that had those responsible for water charging in the 19th century asked the people then if they wanted to pay for the likes of the Thames embankment and beautiful pumping stations, they would probably have said 'no'. But today we see that as a "super smart investment". He called on stakeholders to bring forward any relevant evidence to support a policy choice. (See box on Sustainability First's New Energy and Water Public Interest Network).

Safeguarding the future: invest long term to protect those to come

OUTPERFORMANCE & THE COST OF DEBT

Speaking at the launch of Ofwat's Vulnerability report last month (see p18-19), Cox gave companies some friendly advice: that they should think carefully about how they handle any outperformance gains that could appear to customers to be unearned. At the City Conference, he explained that, while Ofwat took action in 2013 and recovered one-third of outperformance for customers (at that time, exceptional returns were driven by a high RPI and a reducing cost of debt; the industry had £1.2bn in "unearned" gains), in a world where the emphasis is firmly on companies taking ownership of and responsibility for the customer relationship, he "would expect companies to take the lead ahead of the regulator".

Monica Merli, managing director of infrastructure finance at Moody's, suggested transparency – even if Ofwat takes a hard line – would help with confidence. "If you introduce outperformance sharing as a concept, would it not be clearer to clarify your risk principles and your stance on cost of debt pass-through?" Cox said it was a difficult call – is it better to stick with current arrangements which provide predictability or would sticking blindly to a five-yearly settlements have a greater cost? He asked for companies to put forward views.

As part of its Water 2020 programme, Ofwat is reviewing how it sets the cost of debt, specifically:

- debt indexation to market rates
- company performance against the notional cost of debt
- sharing financial outperformance.

It expects to reach a view by mid 2016. Peter Dooley, managing director, global banking & markets at RBS, commented that while the cost of debt has fallen, it can be volatile and can quickly change. He said debt indexation in electricity had been "mechanistic and heavy handed" and had reduced companies' ability to be flexible. He preferred the regulator to remain in control of debt cost than for it to be automated. He added that should changes be made, customers would be exposed to the risk of higher debt costs as well as being able to benefit from lower debt costs.

A vision for infrastructure

On the day of the conference (2 March) DEFRA published what Stewart described as a "roadmap on resilience". Creating a great place for living: enabling resilience in the water sector scopes out a bold policy on water supply and wastewater resilience, featuring long term thinking, multi-sector and multi-stakeholder collaboration, and a regulatory and policy overhaul including confirmation that a draft Strategic Policy Statement for wa-

ter be consulted on in summer 2016 (see box). The paper points to a discernible shift in government attitude since before the last price review, where affordability dominated.

Stewart looks set to lead the charge for investment for resilience from the front. Asked what he would do if he had one magic wand wish, the minister replied that he would "deliver the Bazalgette dream" by mobilising enough private and public funds to make "transformative infrastructure improvements". He commented also that 19th century legislators showed great courage in backing Bazalgette's vision for transformative water sector infrastructure. He said: "We shouldn't set our bar lower than that; we could do even better."

The minister's comments should come as welcome news to companies. Pennon chief executive Chris Loughlin said "visionary leadership" of the type Stewart seemed to offer was needed for the industry to provide more resilience. He

INDUSTRY COMMENT

GIVING THE PUBLIC A VOICE IN LONG-TERM DECISIONS

Sustainability First's New Energy and Water Public Interest Network (New-Pin) is seeking to ensure long-term decisions have the public interest at their heart. Energy and water service providers and regulators are wrestling with how best to involve customers and other stakeholders in long-run strategic decision-making around the big energy and water "trilemmas". Balancing today's costs against tomorrow's benefits – particularly in the face of uncertainty – can be challenging.

Companies in these sectors provide services that are crucial for public, environmental and economic health. Yet there is sometimes little public dialogue on how best to reconcile short and long-term tensions between affordability on the one hand, and investment for security and sustainability, on the other.

Government Strategic Policy Statements do not always resolve these issues. Discussions on affordability tend to be focused on questions of intra-generational equity, less so inter-generational fairness and the impacts on future consumers, citizens and the environment. Company and regulatory decisions also tend to focus on sector-specific solutions, not always recognising systemic risk or making the most of cross-sector lessons and synergies.

Over the coming decades, the energy and water sectors need to significantly step-up investment to adapt to and mitigate the impacts of climate change and to modernise by embracing innovation and the smarter digital world, in the process enabling them to respond to changing public expectations.

It is unclear whether current approaches to how costs, risks and benefits are shared can support the level of change necessary while at the same time maintaining public acceptance. There are fundamental questions about how, as a society, we might wish to meet the costs of long-run transformation of our infrastructure; how best to support development of new innovative approaches to both the supply- and demand- sides; and, what business models might best be expected to deliver such a major step-up in investment whilst at the same time retaining public confidence.

There are differing views as to how energy and water service providers and regulators should respond to the social and environmental externalities that affect the sectors. Arguments have been made that the intractable nature of these issues can lead to them getting dragged into value choices. Others have pointed to the need for a change in the framing of the problems facing the sectors that recognises that they are different and complex.

Although there is much talk there are few solutions. It is clear, however, that addressing such questions in a practical way is core to building a clearer understanding on how best to serve the public interest for the long-run. Absent such consensus, decision-making risks becoming polarised and politicised. This can lead to stop-start decisions and investment instability that can push up the cost of capital and put long-term service resilience in question. In the end, this has the potential to undermine the social licence to operate of providers and to question the legitimacy of regulators.

New-Pin objectives

Sustainability First has established the New-Pin to create a stronger and more coordinated voice for the long-term public interest in the sectors. New-Pin brings together companies, regulators, government departments and public interest advocates with an interest in energy and water to provide an independent forum to:

- *Build understanding between different stakeholders as to what the long-term public interest looks like in these sectors, helping to deal with difficult issues in a more considered and stable way.*
- *Develop capacity and expertise amongst public interest advocates, ensuring a more level playing field with the views of the public more fully represented in long-term company and regulatory decisions.*
- *Improve board-level understanding of the value of public engagement in these sectors and a better grasp of what successful engagement and governance in the public interest might look like.*

The network covers both energy and water in order to improve understanding of the interdependencies and nexus between the two sectors, in areas such as resilience or the common use of data, and issues such as systemic risk and boundary conflicts. This cross sector approach will also increase the opportunities for the cross-fertilisation of ideas.

By Sharon Darcy, associate, Sustainability First

noted the present renewal rate of sewerage infrastructure is c600yrs – c1000yrs by some calculations. Loughlin said that situation shouldn't continue: "That is not reinvesting in resilient assets for the future." He added that investing for the long term would have the additional benefit of providing the growth investors seek and that the key would be protecting those "who can't afford to meet the cost of paying for vital services that keep communities going".

The affordability conundrum

Ofwat will of course have the difficult job of squaring Skellett's circle. DEFRA's resilience roadmap observes: "Ensuring that the water industry is able to secure efficient investment in long-term resilience while keeping customer bills at an acceptable level is the challenge at the core of Ofwat's role as the independent economic regulator." The task will be far from easy. On top of the inherent tension, Cox reported that the scope for efficiency is diminishing AMP on AMP. At PR09, efficiency savings took £39 off the average bill while at PR14, this figure was only £11. He said: "The low hanging fruit has gone and the challenge now will be to move from productive to dynamic efficiencies."

Moreover, Ofwat's recent reports on affordability and vulnerability (see p18-19) make uncomfortable reading: 24% of households spent 3% or more of their disposable income on water and sewer-

ROADMAP ON RESILIENCE

DEFRA's Creating a great place for living: enabling resilience in the water sector scopes out the government's latest thinking on the best route to securing water and wastewater services in the future, against a backdrop of climate change, population growth, and economic expansion. It is bold: clear in its intention to cater for the long term; multi-sector and multi-stakeholder in approach; brave in highlighting the cheapest strategy may not be the best choice; and practical in identifying a policy and regulatory revamp will be necessary to deliver the vision.

Policy and regulation

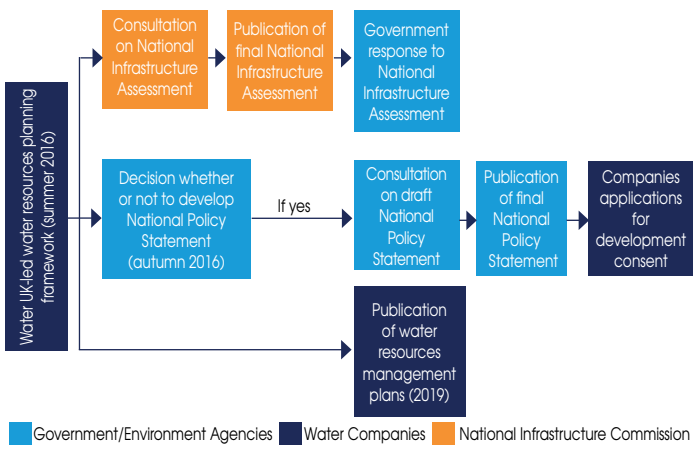
This revamp will come in a number of forms, all of which will build on the Water Act 2014's gift of a resilience duty to Ofwat. The main threads are:

A new Strategic Policy Statement: this will set out strategic objectives and priorities for Ofwat in England. Due for consultation in summer 2016, this will cover incentivising and challenging water companies to understand and develop solutions to meet future needs. It will also explain how the government is working with Ofwat to promote increased water trading and the development of upstream markets. DEFRA said there were gaps in its evidence base around understanding future drainage needs and that closing this gap would be a SPS priority. Better evidence will help make the case for investing in sewerage systems in response to population growth and climate change and inform both company business plans and the forthcoming National Infrastructure Assessment.

National Infrastructure Commission: in October 2015, the Chancellor announced the creation of a National Infrastructure Commission to provide expert independent analysis of the long-term infrastructure needs of the country. The government is currently consulting on the governance, structure and operation of the Commission. The proposal is for the Commission to publish a National Infrastructure Assessment every Parliament setting out its analysis of the UK's infrastructure needs over a 10 to 30 year horizon. The government would be required to respond to the recommendations of the Commission, either endorsing them or proposing alternatives. Endorsed recommendations would become government policy and would provide a strong signal to the water sector and its economic regulator. Stewart said he and the industry must work hard to ensure NIC chair Lord Adonis has water high on his agenda.

National Policy Statement for water? The Planning Act 2008 established a separate planning regime for nationally significant infrastructure projects, under which development consent is decided nationally based on policy set out in designated National Policy Statements. This fast tracks development consent for such projects. DEFRA said: "To meet the water scarcity challenge, the water industry may need to develop new water supply infrastructure that could be considered to be 'nationally significant'. We are minded to develop a National Policy Statement which sets out the need for water supply infrastructure, and will announce whether we will do so by autumn 2016.... Should we develop a National Policy Statement, we will assess the type and scale of projects that should be treated as 'nationally significant infrastructure projects', with the intention of clarifying this by an amending order to the Planning Act 2008." A National Policy Statement would need to take into account the endorsed recommendations from the National Infrastructure Commission. An indicative timeline for water supply NPS development is shown in the chart.

INDICATIVE TIMELINE FOR DEVELOPMENT OF A NATIONAL POLICY STATEMENT FOR WATER SUPPLY



National Policy Statement – wastewater: On the wastewater side, in 2012, Parliament approved a National Policy Statement setting out the framework for planning decisions on nationally significant wastewater infrastructure. This framed the planning route for the Thames Tideway Tunnel. DEFRA said it planned to formally review the existing National Policy Statement on wastewater infrastructure, with a view to taking account of any endorsed recommendations from the NIC, if appropriate.

DEFRA on water resources

Water Resources Management Planning (WRMP) has helped water companies balance supply and demand in area but has not "fundamentally increased the resilience of water supplies in parts of the country or driven a step change in how water is traded between regions". On DEFRA's request, Water UK is developing (by summer 2016) a national water resources long term planning framework, to establish our water needs over the next 50 years and the strategic options that could meet these needs. The project will shape and inform DEFRA's policy framework, company WRMPs and the work of the National Infrastructure Commission. Highlights of DEFRA's thinking on

age; debt rose from £1.9bn to £2.2bn between 2010 and 2014; and half of all customers will at some point in their lives be vulnerable. Cox said affordability issues looked set stay in play going forward and identified the sector's "defining challenge" as delivering "a lot more for less" (or at least with no price increases). How that tallies with DEFRA's view that bills need to be kept at "an acceptable level" remains to be seen.

In light of Ofwat's emphasis on affordability issues, it is perhaps unsurprising to hear the regulator call on companies to think carefully about how they handle outperformance gains. It is already considering whether customers would benefit from cost of debt pass through as part of Water 2020 discussions (see box).

Robust provision for those who would struggle to pay looks set to be the key to squaring the circle of resilient infrastructure and higher water charges (see Leader, p3). But the policy message from DEFRA – endorsement of the need to think long term and increase sector resilience – is clear. And the department looks willing to alter the policy and regulatory landscape to deliver it – particularly through a new Strategic Policy Statement setting out strategic objectives and priorities for Ofwat in England, and because economic regulators will have to have regard to any government-endorsed recommendations emanating from the National Infrastructure Commission. TWR

water supply include:

- Potential for more water trading.
- Possibilities to develop water infrastructure to supply multiple companies.
- Long term best value for money options should not be ignored in favour of the cheaper options.
- Higher "levels of service" (the frequency with which companies plan to use supply restrictions) could be cost beneficial. The Water Act 2014 provides the government with powers to direct companies on their planned levels of service. DEFRA will announce whether it intends to use those powers of direction in autumn 2016. It may issue a direction to one or more companies and/or issue guidance on their level of service in winter 2016.
- New guiding principles on WRMPs are due from the government in Spring, reflecting its priorities on resilience. These will "set a strong expectation that companies look beyond the minimum 25 year planning period to understand their long term needs". Moreover, companies will be expected "to demonstrate consideration of every option to balance supply and demand" – for example: collaboration with neighbouring companies, for instance to trade or develop joint infrastructure/interconnections; collaboration with other sectors to develop joint infrastructure, offer water services or procure water supplies; enhancing the natural resilience of the catchment, to increase the water available for abstraction without posing unacceptable pressures on the environment; and minimising leakage, reusing water and helping customers use water efficiently. Company evaluation of these options must be set out in a new 'resilience' section in WRMPs.
- Revised WRMP approach post 2019? A review will be considered at the end of the current WRMP cycle in 2019 to factor in changes to the abstraction licensing system and the development of upstream markets for water resources.

DEFRA on drainage

Government and industry are on a data gathering exercise to understand future drainage needs – a challenging task because of the diverse range of external pressures and the highly localised nature of the network. Industry work is spearheaded by Water UK's 21st Century Drainage project. DEFRA has meanwhile established a pilot project working with Severn Trent Water and Thames Water to examine their evidence and models, with a view to further work with all companies to develop a national overview. The pilot will conclude in spring 2016. DEFRA said: "This will help inform the first National Infrastructure Assessment, which will set out a clear view of the nation's future infrastructure needs."

Ofwat is working with the 21st Century Drainage programme to understand the impact of existing drainage planning guidance and what it can do in the design of the next price review to encourage greater innovation and long-term planning, in line with its new resilience duty. In its Water 2020 consultation, the regulator set out its expectation that companies will provide strong evidence of a long-term strategic approach to wastewater planning and service provision in support of any special cost-factor claims.

Highlights on DEFRA's thinking so far include:

- Support of the recommendation of the Independent Task & Finish Group on resilience that each water company should have a sewerage and wastewater plan. "These can help provide assurance that companies intend to meet future needs, and provide a mechanism for engaging the wide range of different actors with an impact on drainage systems."
- The Environment Agency and Ofwat have published voluntary guidance for companies on how to prepare drainage strategies for their catchments. This sets out key principles, including that plans should: be developed in partnership; be risk-based; tackle uncertainty; be innovative and sustainable; consider whole-life costs and benefits; and be kept 'live'.
- Companies will need to consider every option to balance pressures on the sewerage network, including: sustainable drainage systems (SuDS) and green infrastructure to manage surface water and reduce the demand on the network; upstream work to encourage better land management; collaboration with other parties who have drainage responsibilities e.g. local authorities and environmental groups; and support for customers in understanding the consequences of sewer misuse.
- Sewerage companies will also need to consider the potential for more integrated management of water resources and drainage.

Water company role

Water companies clearly hold a lot of sway in all this, both in terms of conducting the groundwork and scoping out the future of resilience policy. Stewart said he and DEFRA were very much in listening mode and acknowledged they didn't have all the answers. He said he was looking for a detailed response from the industry to the resilience paper and would "take very very seriously the suggestions you bring forward".

Ofwat & markets

DEFRA charged Ofwat with securing efficient investment in long-term resilience while keeping customer bills at an acceptable level, playing its part in plugging the knowledge gaps on future infrastructure needs; and incentivising companies to develop appropriate solutions – "this will increasingly involve challenging companies to look beyond their own boundaries to develop innovative and cost-efficient solutions to meet future needs".

Ofwat is already underway with much of this as part of Water 2020, including on the use of markets to enhance resilience. DEFRA pointed out that use of markets would have to sit alongside long term planning and not damage integration benefits: "In setting out our priorities for economic regulation of the sector through the next Strategic Policy Statement, we will establish our clear expectation that the design and development of upstream markets reflects the Government's resilience objectives. We expect market development will complement long-term planning and investment by water companies, and build upon the benefits we currently get from integrated delivery by statutory undertakers."

THE THREE MARKETEERS

Wessex Water is stripping back its regulated business to embrace new markets and new service opportunities. Colin Skellett and David Elliott share the company's vision and, with Jerry Bryan, explain its latest move to develop a capacity market for new developments alongside Albion Water.

Wessex Water and Albion Water have teamed up to develop a market for water and wastewater capacity, and to offer a range of other sustainability services to new developments. At Water UK's City Conference at the start of the month, Colin Skellett announced his company had bought a 51% stake in sustainable development specialist Albion (see box, p17), which will continue to be led by renowned innovator and water markets pioneer Jerry Bryan.

For Albion, teaming up with Wessex provides financing and resource opportunities, but says Bryan "of equal importance, perhaps even greater, are the synergies expected from mutual challenge". He stresses Albion will not be subsumed within Wessex; it will be structurally separate and retain its "independence of thought" – but that together, the companies can explore "how we do things differently and better".

There is a clear sense that Albion would not have got into bed with just any company. "I am excited by the Wessex mentality and creativity of thought," Bryan comments, adding that Skellett and director of strategy and new markets David Elliott approached him about the deal in the first place, some nine months back. "Their interests stretch far beyond those of a conventional water company" (see below).

For Wessex, on one level there is an obvious rationale for joining forces with a company well versed in the art of sustainable development. Skellett explains its owner YTL is a big developer in Asia and has ambitions to become a "major player" in the new housing market in the UK. It is eyeing the enormous opportunities resulting from the government's stance on growth and new development; in fact, in December YTL acquired the Filton Airfield site in Bristol, which is earmarked for 2,600 new homes.

We are stripping away pieces from our regulated business, until we are left with a good asset wholesale business.

Benefit for all

Skellett says however that the tie-up will position Albion well to win business outside the West Country and from other developers too – in fact that it should offer a win-win-win for developers, Albion/Wessex and other water companies in whose areas building work takes place.

For developers, general satisfaction with water company service and charges is low; Skellett observes "developers are keen to have alternatives to the incumbent". More specifically, Albion's services will be particularly valuable to those who plan to build in areas of water stress and/or areas where wastewater capacity is under pressure.

Bryan explains Albion's use of separated potable and non potable water networks (he condemns the use of expensive and highly treated water for the likes of toilet flushing) has achieved potable consumption of 80 litres per person per day, which is around half the national average. Moreover that its use of sustainable drainage solutions, on site water storage and local sewage treatment can alleviate drainage and sewerage network overloading. So working with Albion could reveal options for developers that would not otherwise be possible, as well as boosting their green credentials and even providing commercial value-add: Bryan recalls some of his clients have been able to sell properties overlooking "lakes" (built for water retention) for a 10% price premium. He advocates pursuing the Albion route would be worthwhile for any development of 500 homes or more.

For incumbents whose areas are earmarked for development – commonly those where resources are already stretched – Albion's involvement could alleviate the need for investing in downstream infrastructure by avoiding the use of assets during peak flows. Bryan says he is currently talking with the three key WASCs operating in water stressed areas – Thames, Southern and Anglian – to test their appetite for collaboration. "If they are open with us about the costs they are exposed to and what's in their AMPs and so on, we will be open with them about the cost of alternative approaches. Then we can see if we can find a better solution. If we can, why wouldn't they go down that route?"

Skellett: Looking down the value chain and asking which bits could become competitive markets.

Elliott: Multi-agency approach could mean a negotiated settlement by the back door.

The cost issue is vital. Bryan continues: "The marginal cost of meeting demand where capacity is tight is so high. If you do it conventionally [reservoir, desalination etc], it will cost x. If we can achieve the same result for half x or three-quarters x, why not work with us and we can share the benefit?"

Bryan suspects he is "pushing at an open door" with water companies in stressed areas, though he notes there would be a stumbling block should a company want to develop Albion-style services itself. He adds though: "It is difficult for incumbents to offer anything very different – their engineering and their billing systems and so on are geared up for conventional solutions."

Capacity market

Elliott explains the wider significance of rolling out the Albion approach: "What we are talking about here is developing markets in capacity around new developments; can we incentivise developers to put in new capacity or use less [downstream capacity]? If we can create a trading mechanism around who provides capacity, that should galvanise upstream and downstream innovation." He cites in example more upstream storage and other means of slowing flows downstream. He mulls: "Wholesalers could give developers cheaper wholesale prices for creating capacity, because they would not have to invest in infrastructure to cater for peak demand. Whoever is providing that capacity could share in the benefit through innovative charging. This should happen."

Exciting as this prospect is in itself, Skellett envisages an even broader role for Albion. He notes that it offers total site servicing options, which include managing communal green spaces, recycling, and providing stewardship for local biodiversity. Good take-up of these offerings would provide new growth markets for Wessex.

Bryan's preference is to work with water companies and developers who voluntarily opt to develop sustainably, rather than for Ofwat to mandate the use of capacity market solutions in areas under strain. But over time he sees the potential to influence the regulatory and political agenda and the actions of planners and local authorities, if Albion can prove its principles work in prac-

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Bryan: Albion can help lower the high cost of meeting demand where capacity is tight.

tice extensively. He even sees the potential for expansion overseas. "We have heard the water minister talking about UK water as a force for export [at the City Conference - see report page 8-10). Well, community scale solutions are the future, and if the UK can provide the technology and the knowhow to support community scale solutions to water and sanitation problems, we could dominate the world on this in the 21st century."

Stripping back the business

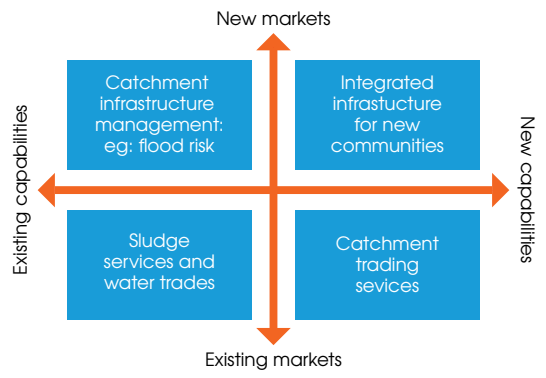
The Albion joint venture is just the latest in a series of gradual moves from Wessex to restructure its traditional integrated business. Elliott explains the company is restructuring "into a wholesale company on one side, and series of SMEs on the other side" all of which to one extent or another are involved in markets – be that through direct competition, collaboration or trading (see box – Wessex's markets). Skellett picks up the theme: "I've been saying for a good few years now that we are a service business not a utility. To offer better service we are moving towards more competition, and we are stripping away pieces from our regulated business, until we are left with a good asset wholesale business. We took out our billing activity some years ago and sewage sludge through GENeco, which has subsequently gone into renewable energy as well… We are looking down the value chain and asking which bits could become competitive markets? We are already looking at how you can manage catchments differently – and nutrients and water resources."

Furthermore, Skellett has additional markets in sight. "We're looking at a number of new things," he says. "Multi-lay and providing a total service for developers – and the ownership of those assets. Also upstream trades on water resources – for example, developing markets with farmers where we can pay them to hold water back." Flood management too is in scope. Skellett mulls: "Who are the players? Where might the funding come from? We need to look to landowners, local authorities, the insurance industry and others as well as public funding and ourselves. I really believe catchments need to be managed in a more collaborative and sustainable way."

The company's vision for new markets and new services is summarised in the diagram.

There is a unifying thread that runs through Wessex's strategy, and that is to focus on societal and environmental outcomes. It sees its role as one of stewardship, providing wholesome water and public health services for all and restoring natural capital at an affordable price. Markets help with this by improving the utilisation of infrastructure, natural resources and finance. Skel-

NEW MARKETS AND NEW SERVICES



WESSEX'S MARKETS

Sludge and renewable energy: GENeco was set up to spearhead Wessex's aspiration to be carbon neutral and to send zero waste to landfill by 2020. It operates one of the largest sewage treatment works in the country on behalf of Wessex and in 2012 launched Bristol's first food waste recycling facility. It now offers organic waste solutions to customers across England and Wales; its state-of-the-art treatment processes produce renewable energy, soil conditioners and nutrient-rich bio fertilisers. GENeco has also pioneered the injection of gas, generated from sewage and food waste, into the natural gas network and has successfully trialled fuelling a "Bio-Bus" with the gas it produces. A fleet of gas-powered buses is expected in Bristol shortly.

Billing and customer service: Bristol Wessex Billing Services is a 50:50 joint venture company set up by Wessex and Bristol Water in 2001. It provides meter reading, billing, debt recovery and customer contact management services for its two parents and is unique in the water industry.

Non household retail: Water2Business is another Wessex/Bristol joint venture. It serves all the non household customers of the two companies and is gearing up to compete in the 2017 market. It draws on the individual knowledge of each owner but with arms length management and a separate premises, it gives dedicated attention to business customer needs.

Capacity around new development: see main article on Albion Water.

Environmental services: Wessex is involved in two trials in this space The first involves the establishment of a ***Natural Capital Trust for the Bristol Avon***, working in partnership with the local authority, local enterprise partnership and others. The project is currently in its infancy but in its sights is an agreement by all stakeholders on a catchment resilience plan which attempts to deliver agreed collective objectives for the whole catchment. For instance, if part of the catchment needs restoration activity, or if new development needs to be accommodated, the Trust will look at how best to manage – and fund – that in the round. Elliott explains: "£13bn a year is spent in England alone on catchment related outcomes, but it is sectorised – controlled by dozens of different bodies. This results in badly allocated resources and silo working. What we are trying to do here (Bristol Avon) is to say if £1 is spent by us or by the local authority or whoever, that £1 should be spent in the best way for the catchment. It's a multi-agency system so we need a multi-agency way of negotiating."

The second concerns ***nutrient reduction in Poole Harbour***, part of a wider catchment initiative there. Elliott praises the Environment Agency, Drinking Water Inspectorate and Natural England for their "forbearance" in allowing the pilot to proceed. Essentially, rather than just consenting individual assets, the regulators have agreed to nutrient permitting at catchment level – the only example of this in England, says Elliott. This means the stakeholders involved can agree between them how best to deliver against the total nutrient consent (which may be tightened year on year), so that in the future trading and infrastructure solutions can compete on an equal footing. Elliott explains: "For example, they agreed we don't have to build a nutrient removal facility at our plant in Dorchester; traded solutions that remove nutrients from farmland are okay instead." Reverse auctions are run to determine the best approach and all stakeholders are incentivised to achieve the catchment level outcome stipulated. Ultimately this approach opens the door to more progressive regulation and activities that make the best uses of resources – natural, built and financial.

lett says this is crucial given the nature of the challenges the industry – and country – currently face. "We have the fundamental challenges of climate change and a need for resilience, but all the while we have to keep bills under control. We will not meet these challenges by traditional means."

For markets to work most effectively in delivering societal and environmental outcomes, Wessex believes the boundaries of what is classified as traditional water utility activity need to be broken down. For the company, this has the additional upside of providing a growth opportunity for owner YTL. Elliott comments: "Our investor accepts that customer bills and the rate of return from traditional solutions are only being pushed one way. As a monopoly, we can't grow because we are constrained by geography. We can reduce costs and have been under pressure to do that for some time, but that is always reset at price reviews. We can continue to look for efficiencies, but we also need to grow our business."

Community and citizenship

Moving away from being a pure monopoly and engaging in defined markets contributes to another strand of activity Wessex is pursuing: building relationships with a series of communities as a means to better understand the needs of those it serves. Ofwat has spelled out that it expects more of companies on the customer engagement front as PR19 gets underway – better understanding, ongoing dialogue and stronger relationships. Wessex currently puts in solid performance on this front and tops the Service Incentive Mechanism league for WASCs. But it wants to go further.

Elliott says the communities Wessex has in sight to connect with are varied: they might be geographical (as in the Bristol Avon case – see box); commercial (for instance, the business community); interest-based (such as membership of a wildlife or environmental group); or social (for example, based around groups who help those who struggle to pay). But the very fact that individuals elect to engage with specific groups or communities – be it because of interest or necessity – will give the company insight into their preferences and concerns. Elliott observes that this will be increasingly important as retail competition develops and wholesalers are one step removed from end customers. He questions: "Who should wholesalers form a relationship with to gain insight into what their long term objectives should be for the services they provide?"

Taken to the limit, strong and consensual community relationships would put power into the hands of community groups. Elliott observes it could ultimately result in "negotiated settlements by the back door" – for instance, in the case of the Bristol Avon Natural Capital Trust. He considers: "Ofwat has guarded against the old fashioned negotiated settlement, like we have seen in Scotland. But I think they are open to a multi-agency approach, which looks for match funding and agreed outcomes for all. The problem is we don't yet have a finalised model to build the negotiation around. It's a challenge for Ofwat: they have encouraged innovation, dialogue, more efficient utilisation of resources, but they haven't yet got the tool set to manage it."

This won't hold Wessex back though. Its activities so far around the development of markets preempt what Ofwat has in mind for Water 2020. Skellett positively wants to stay one step ahead: "We shouldn't rely on the regulator to tell us what to do. We don't like rules. We should be doing things and saying 'what do you think of that?'".

He praises Ofwat's Cathryn Ross and Jonson Cox for being open to innovation and for allowing companies to experiment. Elliott concurs: "Pilots are great. They allow you to test ideas and see how the regulation around them would look. Trying to set regulations before a market opens is painful – look at non household retail. It's better for us to lead by example. Look at social tariffs: we have led and others have followed. It's not a bad way to be progressive. The challenge for the regulator really is how to accelerate that."

Elliott sees something of a virtuous circle in developing new markets, new services and closer relationships with communities to make the best use of resources. "If we can put power into the hands of communities, it would move us towards a citizenship based approach not a consumer based approach. The problem with a consumer approach, revealed by stated preference type research, is that consumers are risk averse and this points to buy-side solutions [infrastructure based]. Community based approaches will lead to better understanding which should support demand side solutions."

If Wessex's vision becomes reality, it would open the door to a far wider array of options for dealing with the industry's pressing challenges, particularly perhaps on flooding. Regulators must do their utmost to keep up. TWR

ALBION WATER

At the core of Albion's business is the provision of a broad range of sustainable services to new housing developers, which offer both environmental and commercial benefits. Although it tailors service packages to developers' needs, Albion says its preference is to supply (and manage via an onsite team) the following:

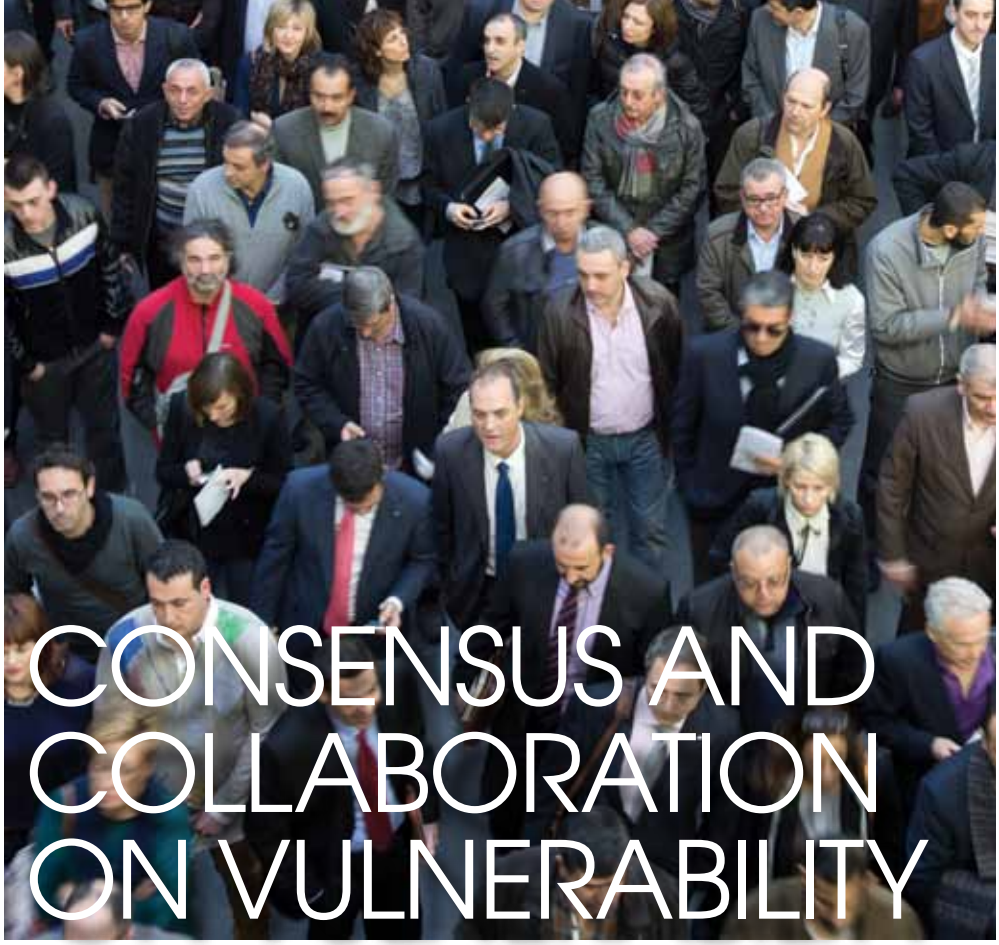
- potable water and wastewater networks
- a sewerage service with nearby modular treatment (potentially including natural wetlands and reed beds that enhance the environment).
- development-wide non-potable "green" water supplies for toilet flushing, irrigation and non-drinking water use.
- adoption and management of all on site sustainable drainage systems and retention lakes
- management and adoption of green spaces.

The underlying principle is to reduce the strain where resources are scarce, and to lower the capital and carbon cost of development infrastructure. Albion's flagship project is at Rissington in Gloucestershire, an ex RAF base comprising 370 existing homes and 368 new builds. Through a combination of activities there, Albion has delivered:

- Cheaper bills to private customers than they would have paid to the incumbent company.
- Historic leakage reduced from c.2,500 litres to c.70 litres per property per day.
- Potable water consumption for new builds reduced by c.40% through the use of green water.
- More sustainable estate management and with growing community engagement.
- Lower costs to the developer, including because Albion has adopted the SuDS and retention infrastructure as part of its sustainable community approach.

In addition, the impact of food disposal on local sewers and treatment processes is being evaluated for future incorporation into community energy and anaerobic digestion roll out at a local scale.

Elsewhere, Albion operates four inset appointments across the industry (Bryan says this number is expected to grow now with Wessex's partnership) and has since 1999 delivered a bulk supply of potable and non-potable water to Shotton Paper, UPM Kymmene's state-of-the-art newsprint plant in Wales.



CONSENSUS AND COLLABORATION ON VULNERABILITY

Companies and regulator unite in backing inclusive service for all as a key principle of caring for customers in vulnerable circumstances – but delivery will be a real challenge.

There was a genuine spirit of consensus, collaboration and co-creation at the launch of Ofwat's Vulnerability focus report in London in February. Chaired by senior director of customers and casework Richard Khaldi, the event brought the regulator together with companies, charities, debt advice workers, consumer representatives and others to challenge the industry's traditional understanding of vulnerability and to forge a better future path together – with water companies at the helm.

In itself, looking after the vulnerable is "at the heart of trust and confidence", said Ofwat chief executive Cathryn Ross. It also is part and parcel of the closer customer engagement expected for PR19 and in fact Customer Challenge Groups have been specifically directed to the focus report to help them hold their companies to account.

The Vulnerability report and the accompanying pack for practitioners set out a new approach to caring for this group, based on three principles.

Inclusive service for all

The first is that service should be excellent for all customers. All parties have recognised that defining vulnerability based on specific groups alone may be too simplistic, and risks marginalising some customers. The report points out: "Vulnerability is complex, and can arise because of a customer's personal characteristics, their circumstances or a combination of the two. It also relates to marketplace conditions and/or the broader economic and social policy environment. As a result, customers can move in and out of vulnerability as their circumstances change."

Half of all customers are expected to find themselves in vulnerable circumstances at some point in their lives. Among common "triggers" are age, income, physical illness, divorce and mental health.

Ross provided some thought-provoking statistics to illustrate the variety of vulnerability drivers: the number of people aged over 85 is set to triple over the next 30 years; in 2013, 7.1m people had not used the internet; 16% have a reading age of under 11; half of us can expect a cancer diagnosis.

Ofwat now expects companies to offer "an inclusive, world-class service to all customers". It added: "Ultimately, all customers – regardless of their personal circumstances, age or postcode – should be able to access the services they need from their providers, including those customers who find themselves in circumstances that make them vulnerable."

At the launch event, there were break out sessions led by recognised leaders in their fields. SIM leader Wessex Water's head of consumer affairs Sue Lindsay shared her insights on looking after customers, including those in vulnerable circumstances. She covered matters including staff training, providing accessible information, partnering and community engagement. Sarah Falder, head of affordability at Dwr Cymru, set out some of the successes her company had gleaned from face to face community events. Chief executive Chris Jones later explained that affordability is a major issue in Wales (see box on key findings on debt and affordability) and that the country has a number of different policy stances to England on related issues. Dwr Cymru will be supporting 10% of its customer base in some way by 2020.

Effective use of data

Secondly, the report advises that effective use of data can help companies to understand their customers and identify those in situations of vulnerability. Moreover: "Effective linked-up use of data between different organisations (such as debt management charities and agencies, housing associations, landlords, water companies and data providing agencies) can also help companies to assist customers before they enter into difficulty."

In the group sessions, United Utilities and Yorkshire Water shared their experience of data sharing with credit reference agency Experian. This has given them in-

AFFORDABILITY AND DEBT, 2014-15

Key findings from Ofwat's December Affordability and debt 2014-15 report:

- 23% of households in England and 32% of households in Wales spend more than 3% of income on water bills
- 11% of households in England and 15% of households in Wales spend more than 5% of income on water bills
- Outstanding revenue rose from £1.9bn to £2.2bn 2010-14
- 56% increase in the number needing help to manage their debts since 2012
- 10% increase in the number contacting the National Debt Helpline about water arrears since 2010
- Average amount of individual debt – £14,650
- Low-income households, working-age adults living alone, lone parents and single pensioners are more likely to have problems paying their bills, and to be in debt
- £21 added to the average annual bill to recover and write off debt.

sight into customers' financial positions beyond the confines of their water bills – who is credit worthy and who is credit stressed – enabling the companies to target their various support mechanisms better. For instance, United Utilities said customers had been transferred onto arrears matching schemes as a result, while Yorkshire Water used the data to frame its social tariff offering. Customers are informed this is going on, but the companies reported few resulting difficulties.

However, Dwr Cymru's Jones described data sharing possibilities as "the elephant in the room," noting water is one sector among many. Referring to the industry's frustrations around negotiating data protection law (particularly, accessing Department of Work and Pensions data to target help to those who need it, and securing landlord liability for tenant water debt), Wessex Water chief executive Colin Skellett said more dialogue was needed with the data commissioner as the legislation couldn't have been intended to stop those who need it getting help.

Ofwat's chairman Jonson Cox urged company leaders to take a pragmatic approach: to respect the spirit of the Data Protection Act but to "back your people in using their judgement".

APPWG ON AFFORDABILITY

Key themes discussed at February's All Party Parliamentary Water Group (APPWG) meeting on affordability:

- **More tools needed:** Wessex Water's head of consumer affairs Sue Lindsay said companies "need more tools in our armoury" to differentiate between the can't pays and the won't pays. The two main new tools the industry has been pursuing are landlord liability for tenant water debt (this is a legal obligation in Wales but not England) and access to Department of Work and Pensions data to identify those who are likely to need financial support. Lindsay reported progress on the latter. DWP has agreed to identify and contact Wessex customers it thinks may need help, to flag up the assistance packages the company offers. This is a pilot project being run jointly with Water UK, the Consumer Council for Water (CC Water) and DEFRA. The stumbling block hitherto has been data protection law but this pilot gets around that because DWP will explicitly not be sharing any information with Wessex. The water company will fund the project. APPWG co-chair Baroness McIntosh put forward an idea to get around data protection concerns on landlord liability: that tenants could tick a box on their bill to give consent.

- **Support must be holistic:** Wessex is widely regarded as a frontier company on affordability issues and Lindsay said assistance must take a holistic approach. Wessex has a wide range of mechanisms which it tailors to the circumstances of the individual. It also funds 18 Citizens Advice Bureaux in its area and has multiple other partners. It is working towards assisting 10% of its customers in some form, and in April will launch a new tariff offering a 20% discount to those on Pension Credit.

- **Ofwat must not be over generous at price reviews:** Responding to a question from Baroness McIntosh on whether the National Audit Office criticisms of Ofwat had been too harsh, CC Water chief executive Tony Smith said his organisation flagged up at PR09 that the cost of capital was too high (even before the cost of borrowing came down further). On top of that, companies benefit from a number of tax benefits including capital allowances and the ability to offshore profits. He reported that you would have earned 50% more by investing in water companies at the time of privatisation that in the FTSE 100, and cautioned that company reputations will be damaged if they continue to make and keep windfalls.

- **It's not easy to reach the hard to reach:** Affinity Water earned the rare enhanced status at PR14, partly for the quality of its community engagement work. Going forward, the industry is expected to engage with customers in an ongoing way and ensure business plans reflect what all customers think. Regulation director Chris Offer raised the issue that reaching groups that don't engage will be a real challenge.

Partnering

The third overarching principle Ofwat set out in its report was that companies should partner widely to address vulnerability – with both other utilities and third party organisations such as CCWater, Water UK, debt management organisations and health charities. It said this approach could help to:

- train staff
- assess the types of support that can be effective for customers in situations of vulnerability
- signpost when customers are struggling with multiple bills
- build a collaborative approach to tackle the challenges facing the sector.

Ofwat is practicing what it preaches by working collaboratively with the industry and others, and by learning from other regulators – particularly the Financial Conduct Authority which has been the trailblazer in this area.

In the breakout groups, Northumbrian Water's Mark Wilkinson provided some practical examples of successful partnering with a range of parties – from big national players like Step Change to very local organisations such as Know Your Money in Middlesborough, which works with 18-21 year olds to provide money management advice. Southern Water's Michelle Simpson explained how her company had partnered to successfully roll out its universal metering programme.

Nonetheless, finding the right partners is no straightforward task, as came up in a Q&A session – how do you choose partner organisations, and how do you measure the costs and benefits? Dwr Cymru's Jones advocated finding a balance between national and local organisations and said that hard to reach customers are often best approached at a very local, even neighbourhood, level. Skellett agreed, suggesting staff often have a good knowledge of potential community organisation partners. Severn Trent's chief customer officer Sarah Bentley said technology could help – analytics, data processing and search.

All these issues will become more intense if resilience spending becomes part of the picture (see report, p10-13). And there are other things on the horizon that could pose additional challenge. Andrea Cook, chair of Yorkshire Water and United Utilities' CCGs, raised the question of how the higher cost to serve of vulnerable customers will be factored in to the household retail cost benefit analysis Ofwat is currently undertaking. She noted the vulnerable were marginalised in energy as other customers were cherry picked.

Household retail competition could also challenge the industry's spirit of working together for the good of all. Best practice sharing stood out as a theme of both the Ofwat event and report and companies were very willing to do it; would they be as willing to hand over information that could give them competitive advantage? And finally, how might the satisfaction of customers in vulnerable situations be measured in any future iteration of the Service Incentive Mechanism? It looks as if the regulatory landscape will have to be as dynamic as vulnerability itself. TWR

GOLDEN OPPORTUNITY?

Ministers are encouraging the water sector to look beyond these shores. But working overseas is far from plain sailing.

Water minister Rory Stewart recently highlighted to the UK water industry that there is a £50bn water export market ripe for the picking. He gave the anecdote that water and sanitation was the number one priority for Indian prime minister Modi when he visited here late last year. The message was echoed last month by trade and investment minister Lord Maude of Horsham at the World Water Tech event in London. Lord Maude spied even greater opportunity, speaking of a $8.6tn market to provide global access to water and sanitation by 2050.

Neither politician pinned down detail – for instance, whether they saw the main opportunity in exporting UK water technologies, consultancy, services, investment or operations. But if water companies' previous experience is anything to go by, this is a growth route fraught with difficulty. Water suppliers would even have a hard job getting out of the starting blocks, observed Verity Mitchell, director of utilities research at HSBC. She said companies were "capital constrained" whereas the the French regulatory system, for instance, allows Suez and Veolia to recover enough profit to invest in "world beating" research and development. The French, she noted, are already working in India.

Stewart said high bills to fund companies to generate profit abroad would not be palatable here – "I don't think that's a real option for us" – but that the industry could pull together more and collaborate with, for instance, universities, research funds and UK Trade & Investment to grow exports.

Working in emerging markets

But even for those who are very well versed in working in emerging markets, the going can be tough. Thierry Mallet, executive vice president at Suez, listed the following observations of working in developing world:

- **Tariffs**: the idea that water users must cover all service costs is unworkable – "flat schemes are dead". Rates need to acknowledge that some costs are sunk and offer payment solutions that blend subsidies, user charges and developer charges.

- **Good governance is key.** Co-governance with partner organisations can work. Transparency – for instance on costs and revenues – is valuable.

- **Investment is long term:** noting the wastewater systems of Paris took 150 years to build, Mallet said anyone who believes much can be achieved in a short time is mistaken. But projects need milestones – e.g. at the two, five and ten year points – to keep them on track.

- **Flexibility:** structures have to be flexible enough to "get through a crisis" – for instance, mixed capital companies are good and alliances should be with a variety of contractors.

However, Julio Schreier, senior waste and water specialist at the European Bank for Reconstruction and Development (EBRD), said difficulties investing in water can be overcome with the right approach. "We invest," he said. "I go to bankrupt companies and we make bankable deals." He agreed with Mallet that you have to be in it for the long haul: "We are happy to get returns in 15-20 years, not five." On the tariff issue, Schreier said recognition of the true cost of water is a "minimal requirement" for the EBRD, but that it treats who pays that cost as a different question. Finally he called for global giants like Suez and Veolia to be more yielding in their costs to help countries access their services. "You have to be prepared to give a bit, to take on more risk, to put money in," he said.

Governance and channels to market

Mallet noted that water often receives less investment than other forms of infrastructure and attributed this in part to the fact that it is commonly treated as a local rather than a national issue –consequently governance arrangements can be challenging. This theme was also raised at World Water Tech by Trevor Hill, CEO of specialist water sector software-as-a-service provider Fathom. Hill said it wasn't a shortage of technology that hindered global water advancement but a shortage of accessible channels to market for those who want to invest – and this is largely a function of the multitude of local players involved. He said the UK is unusual in having so few organisations responsible for water; in Germany for instance there are 10,000 water utilities and 1,600 in Texas alone. For a company trying to sell into such a market, this proliferation of players commonly translates as few resources, low levels of IT sophistication and "incredibly long" sales cycles. He suggested cloud technology and the development of business models for risk averse utilities could help address these issues.

Even in the world's big cities, water governance arrangements can hinder investment and leave important social and economic centres ill prepared for the future. Last month, the Organisation for Economic Cooperation and Development (OECD) launched the latest in a series of reports on water governance, *Water governance in cities*. Key findings are detailed in the box. TWR

Arup has launched the *InDepth Water Yearbook*, a comprehensive review of the global water industry, and has made it available for free download at www.indepthwateryearbook.com.

OECD – WATER GOVERNANCE IN CITIES

In February, the OECD launched its *Water governance in cities report*, which questions whether cities are prepared for the future in water and wastewater terms. Forty-eight cities across 17 countries volunteered to take part in a survey including, from the UK, Edinburgh, Glasgow and Liverpool. Cities were asked to rank which challenges, from a list of 65, were the five most critical to them in terms of managing water. The highest ranking were: infrastructure, efficiency, customers, investment and accountability. Aziza Akhmouch, head of the OECD's water governance programme, commented: "Maybe we need to fix the institutions that can fix the infrastructure first."

The study grouped and analysed the city data in various ways, including by population size and by where roles and responsibilities for urban water policy making sit (centrally, locally or both). It identified seven multi-level governance gaps: capacity gaps, funding gaps, accountability gaps, policy gaps, objective gaps, administrative gaps and information gaps. The first two of these were the most prominent, and specific issues in each area are shown in the charts.

The OECD's policy response is to foster coordination in three key areas:

People: the sector is fragmented and engagement levels between cities and the various stakeholders in water is patchy. Cities have very frequent contact with water service providers and regional governments, for instance, but infrequent contact with lots of other parties including irrigators, financiers, academia and workers. The OECD believes better engagement will build trust, help with willingness to pay, raise awareness of risk, foster accountability, help manage any conflict over water allocation, encourage buy in on reform, and set convergent targets across policy areas.

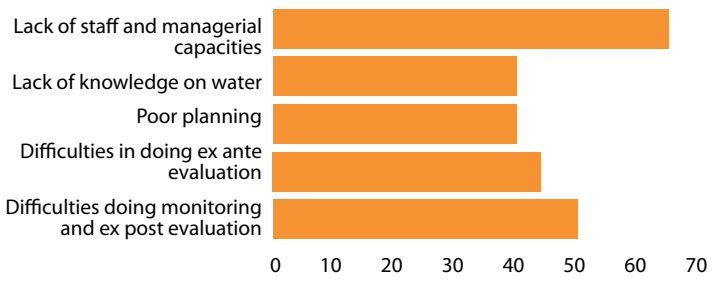
Places: the focus here is on creating linkages between urban and rural areas which could help with many water aspects including quality, wastewater treatment and flood control. Akhmouch cited as examples contracts Paris and Munich have with farmers to reduce pollution levels.

Policies: many strands of policy influence urban water management, including: land use, spatial planning, energy, housing, agriculture and transport. The OECD proposes a number of coordination mechanisms which it believes with improve the efficiency of resource allocation and increase capacity. Among the suggested mechanisms are: financial incentives, partnerships, joint programmes and coordination groups.

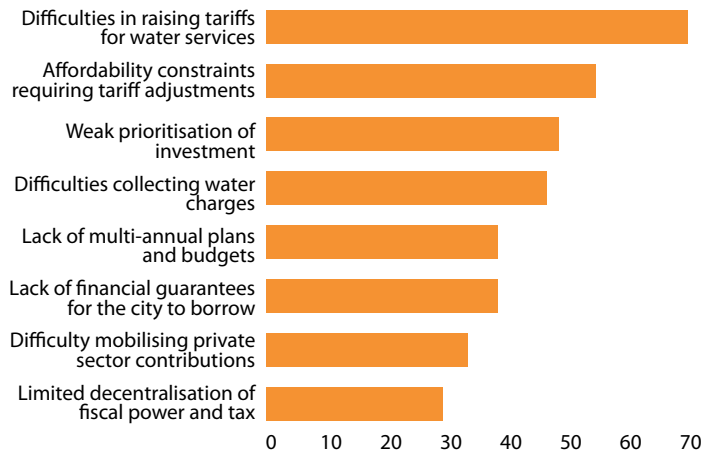
The OECD is now planning to implement its previously published Principles on water governance at city level.

The report and the 48 individual city profiles are available at http://bit.ly/1RfQG8J

CAPACITY GAPS – PROPORTION OF SURVEYED CITIES REPORTING THE FOLLOWING ISSUES



FUNDING GAPS – PROPORTION OF SURVEYED CITIES REPORTING THE FOLLOWING ISSUES



Pennon NHH retail to piggyback on Viridor

Pennon Group is planning to use the national footprint and order book of its Viridor waste business to explore opportunities for its non household (NHH) retail arm. At an investor event last month, chief executive Chris Loughlin said the business retailer will be a standalone legal entity in the group, combining the NHH operations of South West Water and Bournemouth Water. He explained Viridor's national footprint should give the business – Pennon Water Services – an advantage "other water companies haven't yet got".

That is one example of how Pennon plans to exploit the synergies and opportunities arising from owning both a water and a waste business more directly going forward. It has recently restructured and simplified its board structure to this end. As part of the shakeup, Loughlin, was promoted to lead the wider Pennon Group as CEO, and Dr Stephen Bird became managing director of South West Water.

Loughlin provided other examples of how Viridor and South West Water will work more closely together: there will be more service sharing, with the likes of HR, IT and procurement joining the finance team in working across the business; and South West's energy purchasing activity will be used to "derisk" Pennon's energy recovery business more – Loughlin said there was a "25% natural hedge".

The objective is clearly one of cost cutting, with Pennon set to pursue "a tight focus on cost leadership and financing efficiency" – a policy Loughlin said had stood South West Water in good stead at PR14. He added that the group also had growth in its sights and would seek out strategic and cash generation opportunities all the while.

The corporate strategy is very much to stick to the knitting. Loughlin confirmed the group had "no ambition to do anything else" other than UK water and waste infrastructure, which provides predictable, long term, asset-backed returns.

The wholesale water business dominates the group in terms of Ebitda. Loughlin reported that the integration of Bournemouth Water was proceeding well; Ofwat is consulting until 14 March on terminating Bournemouth's licence and modifying South West's to cover the new patch. Back office integration is also planned, with around a quarter of Bournemouth's back office staff to be lost.

Loughlin explained the drivers for the deal were to increase South West's Regulated Capital Value and to pursue frontier performance. Noting growing the wholesale business is difficult because of merger controls, Loughlin indicated Pennon was interested in further acquisitions. He confirmed the company would continue to seek out opportunities. He also noted further opportunities for growth from the new markets due to be opened after 2020, and non household retail. Despite the Viridor link, the latter is not thought to be a major focus for the group outside of certain segments.

Elsewhere, Loughlin said it was "all going exceptionally well" in terms of South West Water's outperformance of its PR14 Outcome Delivery Incentives, and that the company remained industry-leading in its dividend policy.

RBMPs are "woefully unambitious"

WWF-UK and the Angling Trust have slammed the updated English River Basin Management Plans (RBMPs) published by DEFRA and the Environment Agency last month as "woefully unambitious" and said they will fail to tackle the main threats facing the country's rivers.

In February, environment regulators published plans for the 11 river basin districts in England and Wales. These updated the first set of RBMPs agreed in 2009 and followed consultation which ran from October 2014 to April 2015. The plans aim to manage the pressures facing England's water environment under the Water Framework Directive.

The consultation considered five scenarios for 2015 RBMPs, varying in terms of ambition, cost and who pays. The green groups supported a scenario that would get 75% of water bodies to good health by 2027 and, according to Environment Agency analysis, deliver a net benefit to society of £8.4bn. But Dominic Gogol, water policy manager at WWF-UK, said in opting for a far lower target, "ministers have squandered a huge opportunity."

He explained: "Currently, only 17% of water bodies, such as rivers and lakes are at good health. The new targets released … by the Environment Agency show that by 2021 it intends only 21% to be healthy. This lowly ambition does not even get them back to where they were in 2009 [26% in good health]." He called this "devastating for both the people and wildlife that rely on these special places".

© Angling Trust

Wye not act? Herefordshire river turned brown by runoff

Mark Lloyd, chief executive of The Angling Trust & Fish Legal, pointed the finger of blame for many of the problems English rivers suffer – pollution and over abstraction, aggravated by population growth and climate change, with knock-on effects for water quality, availability and management – at a lack of will to tackle the practices of the farming sector. He said: "While these plans set out clearly the range and scale of the issues affecting rivers across the country, such as farm pollution, key effective solutions to tackle them are absent."

The green groups said agriculture and rural land management is responsible for 28.5% of the pressures preventing waters from reaching good status (for instance, run off pollution and over abstraction), while the water industry is responsible for 24.7%. However that the cost and remedial activity burden falls squarely on water company – and hence customer – shoulders. WWF supports polluter pays measures – in particular, attaching conditions to funds such as Single Farm Payments under the Common Agricultural Policy; and wider use of fines and penalties for pollution and breaches of environmental regulation.

DEFRA and the Environment Agency said the RBMPs had been prepared in line with ministerial guidance, fulfil the requirements of the WFD and contribute to the objectives of other EU directives. They added the 2015 plans build on the work already done to protect and improve over 9,320 miles of rivers over the last five years.

CONTRIBUTED BY **ROGER MILNE**

Irish Water hangs in the balance

The fate of Irish Water and the future of water charges loom large in the aftermath of the Irish Republic's inconclusive general election at the end of last month.

Over the course of the general election campaign, Fianna Fail promised that if it ended up in government it would abolish the company while other parties, including Sinn Fein and Anti-Austerity Alliance-People Before Profit, along with many of the Independents, also made its abolition a cornerstone of their campaigns. In the run-up to the election thousands turned out at protests about water charges.

Over the last weeks the possibility of a coalition between Fine Gael and Fianna Fail has emerged. Fine Gael leader and erstwhile Taoiseach Enda Kenny has emphatically ruled out the abolition of Irish Water.

In his first public comments since the election, Kenny insisted that water charges administered by a single national utility would be a fundamental issue for Fine Gael during negotiations on forming a new government.He called on people to continue paying their water bills, saying it would be a historic mistake for the Government to reverse its position on Irish Water.

Fianna Fáil has suggested that charges might be suspended for up to five years with some party sources now saying they will examine the prospect of introducing a tax credit for the 928,000 households who have already paid their bills.

The party's finance spokesman Michael McGrath and environment spokesman Barry Cowen have been instructed by Fianna Fáil leader Micheál Martin to formulate a detailed water charges submission for any government talks.

However, there were indications from sources in both parties that a compromise might be possible if Fianna Fáil backs away from abolishing Irish Water and Fine Gael drops its proposal to abolish the universal social charge. Members of the Independent Alliance and the Social Democrats say they will not support any government that does not make changes to the water charges regime.

Fianna Fáil has proposed a National Roads Authority (NRA) type model for the provision of water services. Trade unions, have been arguing that the debate between the payment for water services and the structure best designed to deliver and improve the water infrastructure needs to be separated. What most want is an end to the commercial semi-state utility.

But abolishing Irish Water by a new government would cost the state up to €7 billion over the next five years, according to internal estimates by the state-owned utility. The estimates envisage the losses occurring under four categories: cash costs, sunk costs, benefits forgone and the lost possibility of getting its debts off the exchequer's books.

With Ireland's water and sewerage infrastructure in need of a multi-year investment programme costing well over €500 million a year, the issue will have a crucial impact on the incoming government's ability to spend money on public services and/or tax cuts.

The cash costs have been estimated at about €100 million, and largely involve paying off staff who would not be transferred to local authorities. It would also include the cost of breaking leases and contracts, and the costs of transferring back the property already put into Irish Water ownership.

Sunk costs are categorised as expenditure the value of which would be lost if the company was abolished or water charges ended. Some €500 million has been spent on the metering system, and another €170 million on establishing the financial, procurement and customer processing systems that Irish Water uses.

The benefits forgone are the domestic water charges valued at €1.6 billion that would be collected in the period to 2021, and a further €1.6 billion in savings that are part of the utility's business plan to 2021.

The final issue is whether Irish Water's borrowings could be kept off the state's balance sheet. At present the utility does not qualify, in large part because of the Government's decision to give people water conservation grants.

Without water charges, the utility cannot pass the Eurostat test. The achievement of savings, and an increase in domestic customers paying their water charges, which stood at about 63%, will be key to passing the Eurostat test.

Royal Assent for law which scraps NI DOE

The legislation cutting the number of Stormont departments from 12 to nine, in the process dissolving the Department of Environment and reassigning responsibility for overall environmental policy making, has gained Royal Assent.

The Northern Ireland Environment Agency and its Drinking Water Inspectorate unit which together regulate NI Water will move to the yet to be established Department of Agriculture, Environment & Rural Affairs (DAERA). It will assume the existing functions of the current Department of Agriculture and Rural Development, and most of the DOE's environmental functions as well as policy for the country's sustainable strategy.

A new Stormont entity, the Department for Infrastructure, will take on strategic planning from DOE as well as the Rivers Agency and inland waterways. In addition it will take the lead on flooding issues.

Another new department – the Department of Justice (DOJ) – will take responsibility for the Water Appeals Commission. Responsibility for local government will rest with the Department for Communities, one of the other new departments.

The new-look to the administration will come into force in May after the next election.

Economic regulation of NI Water is unaffected by these changes and will remain firmly with the independent Utility Regulator.

NI RBMPs make waves

Northern Ireland's environment minister Mark H Durkan has conceded that improvements to the Province's rivers and loughs are taking longer to achieve than originally anticipated. Currently some 68% of surface water bodies are considered to be below either Good Ecological Status (GES) or Good Ecological Potential (GEP).

The government has recently published the second set of River Basin Management Plans for Northern Ireland. These include measures designed to ensure that 70% of the waters meet the European Commission standard for GES status by 2021.

Key actions include planned investment by NI Water in sewage infrastructure to increase capacity and effectiveness of waste water treatment. There is also a multi-million pound agricultural Environmental Farming Scheme to improve water quality and the wider environment as well as a new Nitrates Action Programme with training for farmers to help reduce diffuse pollution from agricultural sources.

INDUSTRY COMMENT

DRONES FOR DRAINS

Dr Monica Rivas Casado provides details of a groundbreaking project which used drones to survey winter 2015 flood damage – and could help water companies speedily identify and respond to flood damage to their infrastructure.

It has been impossible to avoid images of flooded streets and homes this past winter. The winter storms and heavy rainfall have caused damage on a vast scale, and while it is sodden carpets and sofas that we are now most used to seeing, the impact of flooding on roads, drainage, rail, and water infrastructure is also vast. The clean-up operation here is likely to take some time, but rapid response can help to reduce the impact, manage the risk, and get repairs underway swiftly.

Currently in the water industry, when faced with flood water, the options are either to do time consuming and labour intensive manual checks on sites at risk, or, over larger sites, to use imagery gathered from satellite to survey the area from space. In Cockermouth, one of the areas worst affected by the floods of December 2015, a new research project funded by the Natural Environment Research Council (NERC) took to the skies. I conducted a survey with Unmanned Aerial Vehicles (UAVs) which allowed me to map with high accuracy the impact of flood damage.

UAVs, commonly known as drones, are now being put to many uses. Military regularly use them to gather remote data on suspects, and they were a top Christmas present for amateur pilots. However, for the first time in the UK to my knowledge, the Civil Aviation Authority gave permission for UAVs working on the "Drone Watch" project to carry out survey works over congested space in the UK with a range of 1000m from the pilot and up to a potential altitude of 400ft above ground level. This was vital because it allowed a research team to identify with high accuracy the flood extent and damage.

Drone Watch

The principal aim of the new Drone Watch project is to advance flood extent mapping, and to refine current insurance industry practice in evidence based flood damage assessment. The research should prove the feasibility of a novel approach which integrates satellite data with UAV data for urban flood extent mapping and damage assessment. Drones have the ability to scout areas, and their imagery reduces distortion caused by building shadows or atmospheric conditions like cloud or pollution. However, the impact of this deployment could help water infrastructure surveying too.

During major flood events like those seen this winter, UAVs have shown to be a highly effective inspection tool to identify areas where pipes have been exposed and damaged by subsidence. They can also help to identify where the pipes have been so badly damaged they have burst. This means we could contribute to rapid first reconnaissance surveys of the area – ensuring emergency response teams are deployed to the most at risk areas, rather than just the most easily accessible. In the longer term, they could monitor the impact of this resource deployment to track how progress is being made on the ground.

The exact impact of the 2015/2016 flooding on the water infrastructure in the areas affected is not yet clear. In 2009, when floods hit Cumbria in roughly the same area, 40 of 300 waste water treatment plants were impacted (according to figures from the Department of Transport). The media reported that the United Utilities treatment works at Keswick – recently upgraded at a cost of £23m – was out of action as the surrounding area was deluged.

The potential for contamination when treatment works are flooded could be serious – wastewater could spread pathogens in ground and floodwater, eventually being washed into streams and rivers. Rapid and remote deployment of UAVs within flooded areas would be ideal in this case. Drones are now equipped to manoeuvre better than ever, and they can produce very high quality images which could feed back to base the risk of contamination without sending workers into potentially unsafe environments.

CAINTECH

Eye in the sky: a flight image from a UAV.

Prevention and cure

While a UAV deployed to investigate might not be able to stop contamination from occurring, the data collected could inform insurance claims in the short term. In the longer term, it might inform the deployment of temporary flood defences next time around, or help water companies to take proactive steps to protect their assets with permanent solutions.

UAVs are actually already widely used in other sectors for routine maintenance surveys (for example on offshore oil and gas platforms or wind turbines), so this non-crisis scenario use might also become the norm in the water sector too. It is often much safer than sending workers into hard to access areas, and the ease and speed make it an economical choice. Melbourne Water in Australia is currently running trials looking at identifying anomalies in pipes and reservoirs remotely using drones. In terms of flood risk management, the water industry could use this technology not only for asset management and inspection, but to ensure watercourses around their assets are not eroded to the point that they would pose a risk in future.

Infrastructure is a major investment for the water industry. Damage is not only costly, but can have a large impact on the environment and on customers. Further innovations in risk management, including making use of emerging technologies for assessment and monitoring, could help the water industry reduce the impact of extreme weather on business. TWR

By Dr Monica Rivas Casado, a lecturer in Applied Environmental Statistics in the Cranfield University Institute for Environment, Health, Risks and Futures.

THE WATER REPORT

New Power

ENERGY FOR WATER

STAY ON BOARD WITH ON SITE RENEWABLES

Despite subsidy cuts, it is still worth considering onsite renewables – and you should consider your options before VAT levels change.

One of the big energy stories this winter has been changes in feed-in tariffs (FIT) for small scale renewable energy projects – small hydro, rooftop or field-array solar PV, small wind turbines and anaerobic digestion (AD).

Subsidies have been available that were intended to provide a good return on investment for installing these technologies. But as the capital cost of installation has fallen dramatically, the return on investment has been rising dramatically too – so the Department of Energy and Climate Change (DECC) has acted to cut the subsidy, which after all is paid by consumers.

Is it still worth investing? DECC certainly intends companies to continue to install these technologies. The new subsidy levels, which came into force in February, are "still a good investment", according to the Solar Trade Association. Opponents of the cut argue DECC has its sums wrong, and returns will be lower. But it is also likely that capital costs have further to fall – market interest is driving product development and more efficient supply chains.

I would argue that there are other reasons to consider installation – and to act quickly.

Why act now?

Often when we think about generating power we assume it will be exported to the grid, and that's the way DECC sets out its subsidy. But in fact the greater benefit for companies is often not exporting power, but avoiding buying power – especially if that can be done at peak times when power prices are at their highest. I've argued before in this briefing that companies should look at what energy demands – like heating and cooling – they can switch out of high price periods.

Combining on-site power with storage or load shifting is a powerful tool to help keep power costs low. And although power prices are falling now, they are unlikely to stay low for the next two decades. Power generation onsite provides a hedge against volatile or rising power prices throughout that period.

The revised feed-in tariff scheme sets maximum deployment levels each quarter on each technology, so there could be a rush for the most economically attractive. What is more, the tariff available will automatically be reduced over time – as, it is assumed, capital costs fall – and if deployment caps are reached. Importantly, the tariff is reduced for new installations, not existing ones – whichever tariff you access at startup will stay in place for the whole period. So you want to be early in the queue.

But there is additional urgency this half-year. The government has been in a long fight with the European Commission over the VAT charged on energy efficiency products, which has been set at 5% in the UK, instead of 20% as required across the EU. At the end of 2015 the European Court ruled against the UK and that means a VAT hike on 1 August that includes small renewable technologies as well as pure efficiency products like insulation.

Think heat

Amid the publicity around FIT reductions and the campaign to soften the blow, it's worth remembering that another subsidy regime remains unchanged: the Renewable Heat Incentive (RHI). As with the FIT, this provides a stable income stream if you use renewable energy – but in this case it refers to heat generation, not electricity.

Almost any business is paying for heat, whether it is for building temperature and hot water, or use in one process or another. The RHI will underwrite installation of a wide range of renewable heat options, from solar thermal panels to heat pumps. If you meet sustainability criteria it will even underwrite using biomass and waste to provide heat – or produce gas to be used for heating or injected into the national gas network. For some businesses this is a win all round: cut the cost of transporting waste offsite and of importing power or heat at the same time.

In some cases, the RHI will even accredit – and pay out for – installations already in place.

As ever, the advice is to pick apart your energy process and ask some detailed questions about when and where you use heat and power and where your flexibility lies. Do it now, before VAT changes force you to recalculate. TWR

Janet Wood is editor of New Power, an expert publication for energy specialists in utilities, investors, contractors and major user companies.

See more at www.newpower.info

QUESTION YOUR ENERGY MANAGER

- How have we managed our energy efficiency programme to minimise extra costs from VAT changes in August?
- What investigation have we done of our heat demand and how it interacts with our power use?
- Do we have rooftop or other areas that are orientated well for PV or solar thermal?
- How do we manage our waste arisings?

MOSL CALLS "RED" TO RAMP UP RESOURCES

Last month, MOSL, the company responsible for delivering the systems capability for non-household retail market opening, put the status of its programme to "red" in light of some short-term challenges. Chief executive Ben Jeffs explained this was a deliberate and transparent move; he made the "judgement call" to move to red in mid-February, with the express intention of galvanising even greater management focus from MOSL, CGI and its partner Bridgeall to resolve the issues at hand as quickly as possible.

A series of challenges have arisen for MOSL since Christmas, when the programme moved into more of an implementation phase. These include delays to the release of its data strategy; "blocking issues" which prevented the testing of functionality in phase two of System Integration Testing (SIT2); and issues testing the Settlement Engine being developed by Bridgeall. Up until then, the MOSL programme had been at "amber" because, explains Jeffs, "at that point, although we were slightly behind our mobilisation plans, we were still hitting every milestone". He added: "Due to the combination of the complex nature of what we're doing and the tight timescales involved, the programme has actually never been green."

> **Evening and weekend working is considered inevitable**

Although none of the issues MOSL faces are insurmountable, taken together they represent a threat to moving the development of the Central Market Operating System from its current "build" phase into user acceptance testing, which is scheduled for 4 April 2016. "We recognised that the quantity of issues we faced required a different approach at this point," said Jeffs. Failure to hit the April 16 target, which is also an Open Water programme milestone, would mean market participants would face delays accessing the so-called "sandpit" environment for testing their own retail market systems. Jeffs pointed out however that the red status does not apply to market opening in April 2017, only to the short term April 2016 target.

Should Jeffs have seen this pinch point coming? He considered: "Could I have foreseen this? I knew we were heading into implementation after Christmas and that we were broadly on track. Inevitably, however, as the level of detail and complexity has increased, issues have been teased out that we couldn't have foreseen."He added: "Obviously we would have preferred to have avoided this [going to red], but that's what our tracking processes are in place for. It went red by design."

Recovery plan

Jeffs related that within days of the MOSL board meeting at which the red status was discussed, he had informed market participant CEOs of the situation and within a week agreed a recovery plan with CGI. The recovery strategy blends "specific daily monitoring at a management level and more resource". Jeffs wrote to CEOs to set out the specifics as soon as they were agreed:

- The second phase of SIT2 has been suspended while the blocking issues are resolved. SIT2 and SIT3 testing will now be combined into a single phase.
- CGI has trebled the number of developers and testers working on CMOS in the Netherlands; a further three people will be deployed in the UK to support work on the Settlement Engine.
- Additional directorial support from CGI: programme director Steve Hutchins will be deployed in London to provide additional day-to-day management support; recovery-focused programme manager Mark Wood will oversee the remaining testing in the Netherlands.
- MOSL has appointed Samir Rahim as IT director; he will oversee the day-to-day delivery of the recovery plan. Steve Milsom, from MOSL test partner SQS, will support the final stages of testing with CGI in the Netherlands.
- High level management: Jeffs has a daily discussion with Tara McGeehan, CGI's VP energy, utilities and telecoms, to track progress; MOSL chairman Andrew Pinder has a weekly call with Tim Gregory, UK president, CGI.

With these new resources and management scrutiny in place, will MOSL hit the 4 April deadline? "It looks achievable, but it's still too early to say," says Jeffs. "However, I believe that these steps represent a significant response to the challenges we face and will make a material difference to our ability to hit the 4 April Build Phase exit milestone."

He added that there was some contingency in the recovery plan in that it was based on weekday working only, but in reality "additional evening and weekend working is considered inevitable"; moreover that CGI had rescheduled its team's Easter holidays. "Both teams are pulling out all the stops."

Jeffs pointed out that he is keenly aware MOSL is a 'key dependency' for water companies and that in fact many had flagged this up in their February assurance letters. Acknowledging some recent delays, he said "everything we issue has to be of a certain standard, but we are constantly aware of the need to issue quickly, both because of the pace at which we're working and because our members have specifically asked for sight of documents as early as possible in the process."

He added MOSL couldn't be as prescriptive as some stakeholders would like because it has to be flexible enough to serve a wide range of participants – from the largest WASC to the smallest NAV. Nevertheless he said MOSL is learning continually and has a mentality of "always striving for excellence, whilst recognising the daily challenge of doing so in a programme like this". TWR

LOW MARGINS PROMPT COST CUTTING UU/SEVERN MERGER

Gaining scale and making savings on staff and system costs underpin the retail JV.

Looking for a way through low retail margins in the 2017 market, United Utilities and Severn Trent have launched a two-pronged attack on costs through a merger of their non household retail businesses (see box). A single team, based in the new location of Stoke on Trent, will save on staff costs compared to running two separate operations. United Utilities chief executive said the team will use a "market ready CRM" (which is already in service at his company, lowering implementation risk) and will "establish a stand alone low cost back office", priced in "single figure millions".

He observed that the energy experience had proved a low cost operation is "a key component of success" and that scale is attractive. Severn Trent chief executive Liv Garfield added however that "while low cost is key, people stay for service". The JV aims to combine the complementary skills of both companies, including on sales, customer service, business strategy and credit management, to deliver an attractive proposition for large and small business customers across the country. Mogford explained that in terms of value added services, the focus would be on "short cycle" activities such as leak detection and water consumption advice rather than "long cycle" activities such as capital works or undertaking water operations for customers.

Both parties accept there is little clarity at the moment on how the NHH market will develop once it is opened. With the new deal they are aiming to position themselves strongly and be flexible enough to respond to change.

Change could come in the form of expanding the JV to take in the business retail arms of other companies. Garfield said that getting the UU/ST JV up and running was the "total focus for the moment" but did not rule out further consolidation in the future. Mogford confirmed his company had identified other potential partners but had found Severn Trent to be a good fit: "like minded, in seeing the market as an opportunity"; contiguous in geography (Stoke is approximately the mid point); and compatible from a value perspective.

Change may also follow from the confirmation of household market opening. This is not in the scope of the JV presently, but the merger may aid preparations if and when that prospect is confirmed.

Nor should the deal necessarily be taken as indicating a long term commitment to business retailing. Speaking at Water UK's City Conference on 2 March, Pictet Asset Management's Hans Peter Portner pondered whether the intention could be to maximise short term value. That interpretation would fit with a focus on "short cycle" value adds only.

Moody's rated the deal as credit neutral. It said not only was the JV small relative to the overall scale of the wider companies, but also that benefits "may be fully offset by less predictable cash flow generation".

The merger is subject to Competition and Markets Authority approval. We can expect other incumbents to reveal their retail strategies over the coming months, be it through similar JVs, market exit or other forms of restructuring or partnerships (see box on Northumbrian Water). TWR

THE JOINT VENTURE

The yet-to-be-named combined business will be a legally separate stand alone 50:50 joint venture, performing billing and customer service activities for NHH customers in the UU and ST areas; the Scottish customers of the two companies (UU's Scottish market revenues stand at £18m and ST's at £6m); and will compete out-of-area for new business after market opening. It will be headed up by chief executive Sue Amies-King (currently business retail director at UU) and the chief financial officer will be Stuart Howell (currently head of finance and business planning, business services at Severn Trent).

As the smaller partner, Severn Trent will pay £3.5 million on completion of the transaction, plus it will share the cost of systems development. Based on March 2015 financial year end numbers, and before allowing for any financing or synergy effects, the JV is expected to have sales of £940.2m, gross assets of £200m and profit before tax of £9.7m. It will serve 400,000 customers (pre switching), 26% of the English and Scottish market by site number.

ILLUSTRATIVE POTENTIAL REVENUE AND COSTS OF THE COMBINED ENTITY, 2015-20 (BASED ON OFWAT'S FD)

Revenue/cost	£m
Retail gross margin	£327.4
Service costs	-£189.9
Depreciation	-£12
EBIT	£125.5
Finance costs	-£2.3
Working capital (assuming 10% working capital requirement for entire revenue)	-£22.6
PBIT	£100.5

Source: Moody's

NORTHUMBRIAN WAVES HELLO

Shortly before The Water Report went to press this month, Northumbrian Water unveiled a separate entity to compete in the NHH retail market. The new business will trade as "Wave" – a brand that loses the regional identity to maximise opportunities nationally yet "retains NWG's corporate colours and its hexagonal shape is inspired by Northumberland's castles". Wave will be headed up by managing director Lucy Darch (pictured) who joined the company last year and can draw on a 20-year career in utilities setting up and leading business development, digital, commercial and marketing teams in companies including British Gas Business, uSwitch and Moneysupermarket. Wave has selected the Gentrack Velocity billing system, which is already used by Ovo Energy, one of the UK's fastest growing energy utilities. More details in a future TWR.

INDUSTRY COMMENT

DATA REQUIREMENTS FOR THE CENTRAL MARKET SYSTEM

MOSL's data demands on companies are daunting. The process must be formalised and de-risked as far as possible. By CGI's Deepak Patel.

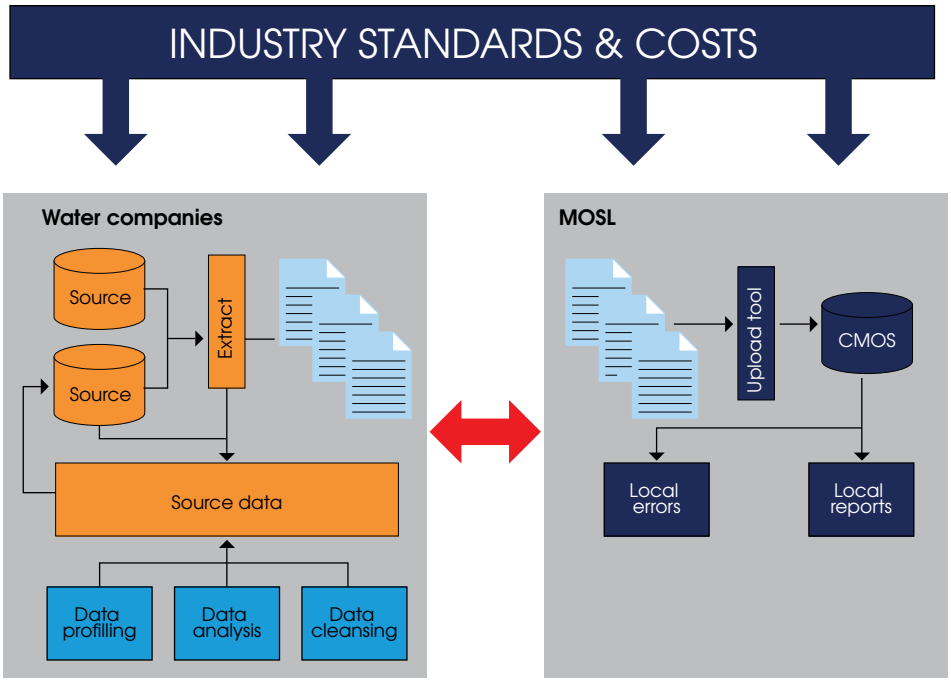
Data holds the key to making market opening a success because without the right data, at the right time, and of the right quality the Central Market Operating System (CMOS) will be faced with unprecedented challenges. The breadth, complexity, and dispersed nature of data adds to the daunting challenge of getting it right; a challenge that will inevitably filter through to the individual water companies to resolve. CGI has been involved in the opening of many utility markets worldwide, and data has continually been an area that requires attention to limit the risk posed to market opening and beyond. Rest assured, approaching this with a structured approach and with the right framework in place, will help make it a success.

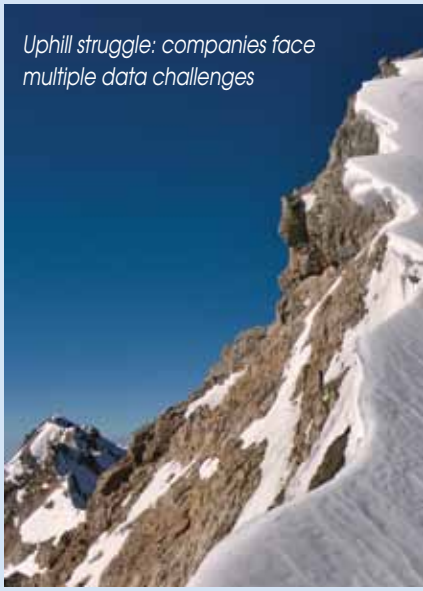
MOSL is the custodian of the data but the individual water companies are accountable and responsible for providing the right data and validating that data. Help and support exists through published industry documentation which defines key items including file format, field sequences, and what constitutes an eligible value. Crucially, this will help water companies tackle activities associated with providing the right data and validating that data. But there are other data activities for which individual water companies must take ownership, and this is no small task. These include:

- *Identifying the full volume of eligible data*
- *Extracting required data from source systems*
- *Ensuring the overall health of the data*
- *Cleansing data in a timely manner*

Before looking in further detail, let's put into context how the individual items listed above fit into the overall approach to loading a water company's data into the CMOS (see diagram). Data will be loaded by MOSL into the CMOS through an upload tool that will assess the validity of the data; any data that fails this validation will not be loaded and errors will be reported and issued to the individual water companies to evaluate and fix.

LOADING DATA INTO CMOS





Uphill struggle: companies face multiple data challenges

So what does that mean for water companies? A strong focus on what constitutes the right level of quality of data is critical to de-risking the load process into CMOS. Shadow operation starts in October 2016 and if all eligible premises are not loaded into CMOS by then, water companies will need to plan and execute a recovery plan, drawing on resources leading to additional time and cost.

In working out what is the right data to extract, there are some key considerations:

- *Data is likely to be spread across a series of source systems.*
- *Joining data across multiple systems is not straightforward; often there are no common keys between underlying database tables, making it a challenge to form a "joined up" view.*
- *When you form a joined up view of data, you often find multiple instances of the same data, mean-*

93%

of successful data migration projects adopt a formal methodology

ing that you then have the challenge of where data is mastered (and which is the right data). This is often a project in its own right.

- What happens with data that doesn't meet eligibility criteria and therefore gets "left behind"? Are you going to cleanse it or implement a manual process to create this data in CMS directly?
- When is the right time to extract data? "Anytime" isn't usually the answer because you need to consider that day-to-day business processes that impact on the state of data at any one time might be part way through. A complete analysis of business processes and likely data states will be needed to work out the optimal time to extract data and limit manual effort to update data post load into CMS.
- In producing full volume data extracts and joining them up, how much time will be required? Is this best done over a weekend or can the current landscape handle data extract processes running in the background?

In assessing the overall health of your data, consider that:

- On average, organisations believe that 32% of their data is inaccurate (research conducted in the US and stated in the 2015 Data Benchmark Report), so many companies are likely to be starting on the back foot. It's only through data discovery and data profiling that a firm and fuller view of inaccurate data can be formed. This can be a time consuming and challenging task, which needs a structured approach to help complete this in the most efficient manner.
- How do you know what data issues you're looking for? Where do you start? The answers to these questions need planning and working through with both IT and business stakeholders. It's driven largely by what CMOS needs but also how that data gets created or updated through day-to-day business processes. A clear view of business processes and the data impacted is imperative to keep focus on data that's important.
- How do you execute data discovery and data profiling? Is it through data tools or through internal IT teams creating scripts manually, to query source systems? The latter is often viewed as favourable to avoid any outlay on data tools, but the results usually are more time-consuming to generate (and format into something that others can understand) and do not provide the widest view possible.
- Data cleansing of inaccurate or incorrect data and enrichment of data that has gaps or is only partially accurate needs to be logged, tracked, and managed as a project in its own right. You would need to consider whether you embark on a more tactical or strategic set of data cleansing and enrichment activities and then create a framework to execute this.

These are just some of the considerations that need to be taken into account to ensure your data is accurate and complete for market opening. These could be frankly daunting thoughts, but data is what drives day-to-day business decisions and data is what will ultimately determine the success of non-household market opening.

Companies will need to answer some very hard questions truthfully. If companies leave it too long then they may be setting themselves up for a very rocky ride. The figures in the boxes are based on the last published report by leading industry analyst Bloor Research (published in 2011 and issued with updates in 2014)

> **A strong focus on what constitutes the right level of quality of data is critical to de-risking the load process**

> **32%**
> of data is inaccurate, on average

> **Companies will need to answer some very hard questions truthfully. If companies leave it too long then they may be setting themselves up for a very rocky ride.**

> **72%**
> of on-budget data projects use a data profiling or discovery tool before setting a project budget

CGI is working with MOSL to understand these challenges – not just from the point of receiving data but for the entire end-to-end data upload process. Our data specialists and water experts are drawing up mitigations for the risks we foresee; this is driven by CGI's experience in previous utility market openings:

- We have built and operate all of the central systems for the UK electricity market.
- We designed, built and operate 12 of the 18 utility market systems in the world today.
- We helped build and operate the systems that run the Scottish water market.

Ben Jeffs, chief executive, MOSL, says: "The lesson from Scotland and other market openings is clear: the three key priorities are data, data and data. The quality of data is probably the single biggest determinant of a customer's switching experience once the market opens, so it's in everyone's interest to get it right from the outset."

We are using our Data Quality Management framework to help apply a structure, method, and process to what is seen to be the key to success for market opening. By water companies aligning their processes to this structure and framework, it will ultimately lead to a more coherent and smoother approach to load the right data, at the right time, and of the right quality the CMOS needs. TWR

By Deepak Patel, UK data migration practice lead, CGI.

OFWAT OFFERS FLEXIBLE INTERIM SUPPLIER TERMS

Retailers will be able to voluntary opt-in to the interim supplier pool, and opt-out of taking on customers indiscriminately.

Water retailers will be able to choose whether or not to volunteer their services in scooping up business customers whose supplier has ceased to trade – for instance because of insolvency –under plans from Ofwat for the post April 2017 market.

In a policy conclusion document issued last month, the regulator said it had "decided not to introduce any form of mandatory opt-in or market-share threshold test at this stage". There will be additional flexibility for those who opt-in but don't want to take customers on indiscriminately. The regulator explained: "We have decided that eligible licensees will generally be permitted to opt-out by area and/or service category. However, it should be noted that there will be some conditions placed on this…We have decided not to enable eligible licensees to opt-out on any more granular basis, such as by customer class, as this would increase potential for complexity, delay, and reduced interim supply options for some classes of customer."

The exception to these flexible arrangements is for acquiring licensees in areas where the incumbent is exiting; these suppliers will be obliged to join the interim supply pool and won't have opt-out options. Ofwat explained: "This approach will mean that the acquiring licensee shall always be available as the default interim supplier in an exit area, ensuring equivalent protection to customers in an exit area as there would have been had the relevant undertaker not exited."

The opt-in process will be administered by the Market Operator under the Wholesale-Retail Code and suppliers will be able to put themselves forward at any time from licence application onwards. Customers will be allocated to interim suppliers via "a simple form of market-based allocation" initially at least based on price-only offers. Non-price terms and conditions will remain as per the eligible licensee's pre-published scheme for interim supply. Ofwat added: "Initially at least, undertakers shall not be permitted to participate in any market-based allocation process."

The receiving interim licencee will be responsible for supplying the customer from the date of the cessation of the failing retailer (defined by the termination of its contract by the wholesaler). "This should ensure the credit risks faced by parties, including wholesalers, remains within the envelope of risks which will already be provided for through the normal regulated industry credit arrangements."

Information

Ofwat will provide basic aggregated information to interim suppliers on the affected customer base, and will have the flexibility to make additional disaggregated information available where this is expedient and practicable. It said: "At a minimum, potential interim suppliers will need to know how many customers would need to be supplied on interim supply schemes of terms and conditions in each region. However, we expect that more granular information on affected customers could be useful, as long as it could be rapidly and robustly generated, including from information within the Market Operator's systems."

Interim licensees will be obligated to write to each affected customer allocated to it within five business days to provide certain specified information. Customers won't be locked in to the new supplier though, and will be able to switch away if they choose. The interim licensee won't be able to vary or terminate the terms and conditions of its scheme for interim supply without customer consent for a period of three months.

Ofwat said it would monitor how these arrangements work after market opening and is open to reconsidering them if need be. The regulator is obliged by law to establish an Interim Supply Code (ISC) setting out how the interim supply arrangements will be implemented in practice. Its February document included a draft ISC. TWR

DEEMED CONTRACTS AND RETAIL EXIT CODE

Ofwat has also published its conclusions on the contractual terms that will apply for customers transferred following an incumbent exit or for those who have not had an opportunity to engage with the market – for instance, because of their supplier's insolvency and their consequent transfer to an interim supplier. Highlights of these deemed contract provisions are:

- Customers won't be locked in to deemed contracts – they will be able switch to a different contract or supplier at any time with no notice and will incur no fee.
- Retailers will be required to inform customers clearly they are on a deemed contract within two months, and of their right to switch away. Ofwat is considering as part of its wider customer protection work whether suppliers will have to issue reminders to customers, as well as information on alternatives, possibly through inclusion on invoices.
- Price terms: no customer should be no worse off as a result of an exit. The acquiring WSSL retailer must offer equivalent terms as the customer would have received from the incumbent in its scheme of terms and conditions. In non exit situations where deemed contracts apply, price equivalence must be similarly offered to SMEs but not larger businesses.
- Retailers' ability to terminate deemed contracts will be restricted, and in the limited circumstances in which termination is permitted, three months' notice will be due to the customer.
- Billing: there will be no requirement for the supplier to bill more frequently than annually; back billing is being tackled as part of Ofwat's wider customer protection work, and deemed contract provisions will be aligned with any resulting wider measures.

Ofwat is required under the retail exit regulations being prepared by DEFRA to set out deemed contract provisions for customers affected by exit in a Retail Exit Code. It is consulting on draft Retail Exit Code terms which it published in February.

INDUSTRY COMMENT

GOING DIGITAL ON WHOLESALER-RETAILER INTERACTIONS

With potentially two million wholesaler/retailer interactions a year, common standards are needed and digital interactions must be kept simple, secure and fair to all, says David Tyler.

All sides are making progress in terms of interactions between MOSL and trading parties ahead of market opening. With shadow operations drawing ever near, focus is turning also to the bilateral interactions between parties. In particular, many are wondering how they can interoperate effectively while balancing off the sometimes conflicting demands of simplicity, security and fairness to all.

As the diagram shows, some retailers will have to interact with many wholesalers and vice versa. How can they do that in a way that suits everyone? With some estimates suggesting there may be as many as two million of these interactions a year when you consider follow up activity, there is neither appetite nor capacity for a manual option.

Participation and interest are growing steadily among the trading parties, with many water companies and vendors now getting involved. A cross-community working group has been set up to look at agreeing common standards; minutes and outputs from the group are being posted to a dedicated MOSL forum.

Simplicity

The Operational Terms in the Wholesaler-Retailer Code (WRC) assume a number of forms are completed and passed between retailers and wholesalers. That recognises the lowest levels of technical sophistication – encourages them even – driven by the need to avoid barriers to entry and not to impose burdens beyond the necessary.

But that leaves things open to interpretation. At its most basic level, interoperability means having a common view of data and processes. So the market needs a consistent way of looking at how to format and structure the data in the forms if it is to keep things simple and aligned. If data items listed in the market catalogue can be re-used, so much the better.

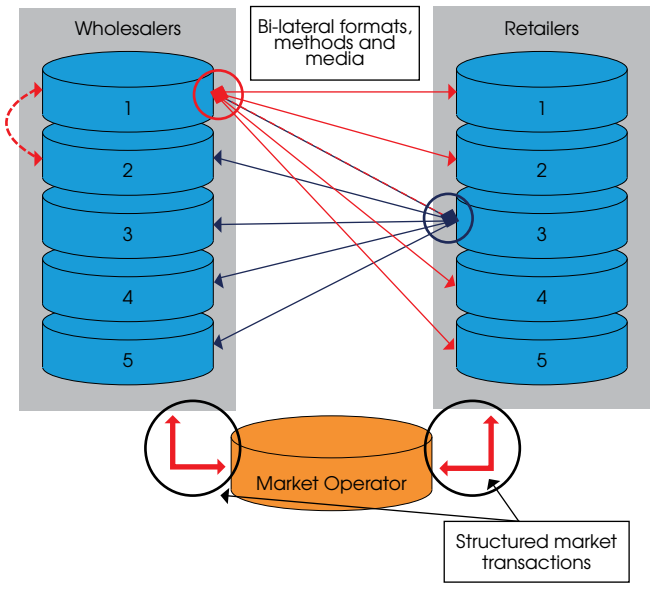
That is why we are publishing our views on what a codified catalogue for the forms might look like, in a format that the industry recognises. We have no vested interest in the specific outcome: our proposals are open to all and are there to be adopted and adapted by market participants and vendors alike. Our proposals are on the MOSL forum and will be posted on our company website in due course, accessible to all.

Security

I take the view that those companies that can manage service requests in their corporate systems will want to do so, regardless of the size of their business. For these companies, digital exchange is preferable and they will need appropriate security in place for each channel they have. Party-to-party interactions are perhaps easier to implement, functionally, but as the number of interfaces increases, so does the security burden. This will be a big factor in the final shake up of what mechanism is needed.

In the MOSL/CMA models, a trading party controls the rate at which it consumes market data. To keep this principle, one solution is to have wholesalers act as "stock keeper" so that retailers can still self-serve. This is a neat approach, though not one that helps wholesalers to interact with each other. And it relies on absolute commonality in not just the data standards but in how any exchange mechanisms are implemented. Even so, this model may be a pragmatic starting point.

BILATERAL INTERACTIONS IN THE WATER MARKET



> **The market needs a consistent way of looking at how to format and structure the data**

Fairness to all

A common catalogue should better allow all participants to adopt their preferred channel, even if that means paper-, PDF- or spreadsheet-based options. However, wholesalers are concerned about the costs and service implications of manual processes. They are being highly proactive in helping retailers by offering portals directly into their business processes, which will empower retailers to track their work requests through the full lifecycle. A down-side with this is that it means that retailers may have to utilise many different portals to manage their whole portfolio. Not all retailers will need such a capability, but those that do may prefer to see it all in one place.

The momentum and cooperation is clear but time is running out on agreeing a strategic solution. We will continue to contribute our thinking as we – and other vendors, I'm sure – look to provide innovative solutions to this important challenge. TWR

By David Tyler, Water Market Reform Lead, AMT-SYBEX