

UK regulated utilities post COVID-19

business as usual or fundamental change?

The outbreak of COVID-19 is changing the way we all live and work and is causing significant economic challenges for consumers, businesses and communities across the UK. During this period, utility networks, as the backbone of modern society, are playing a critical role in supporting the wellbeing and continued economic health of UK society. The situation is changing rapidly but after several months of lockdown, we look at the potential long-term impacts on regulated utility networks and consider whether we need to rethink their role and adjust the regulatory frameworks which govern them.

The UK Government has rightly identified the services provided by utility networks as critical for the effective functioning of society. Whilst regulated utilities are already experienced at responding to emergency situations (e.g. storms, flooding, cyber incidents, outages etc.), the major disruption to society caused by COVID-19 has placed additional challenges on regulated utilities and forced them, in some instances, to go well beyond existing continuity and contingency plans. In the short term, regulated utilities have focused on maintaining a safe and reliable service by delaying non-essential works, ensuring continuity and reliability of supplies and ensuring customers' needs are met, particularly the most vulnerable. However, they have also been required to extend their role to provide enhanced information to customers, coordinate with emergency services and even be involved in activities such as food and medicine delivery.

This is all in the context of a sudden and very large increase in the number of potentially vulnerable customers, due to COVID-19 induced health and financial challenges.

In the longer term, there is a question of whether such expanded roles in society should be more embedded into their explicit duties, but also whether we need greater resilience in our utility network assets and in the people, which run them to cope with future pandemics. Moreover, we will rely on our regulated utilities to enable delivery of our Net Zero ambition, and related investment to potentially to play a key role in supporting our recovery from the COVID-19 induced economic downturn. However, with many more customers now struggling to afford their utility bills, are these ambitions realistic?



Short term challenges

The pandemic has already required regulated utilities to address a range of challenges in the short term, which provide clues to challenges they may face in the longer term

Many more customers have suddenly become vulnerable, and utilities are having to respond rapidly

The disruption caused by COVID-19 is highlighting the important role that regulated networks play in serving modern societies. The pandemic has caused significant disruption across all parts of society, particularly impacting vulnerable and elderly customers. In the context of the existing crisis, regulated utilities are not only deploying existing contingency plans to ensure reliable supply but are also expanding efforts to support customers and communities where traditional social support services are overwhelmed. For example, individual regional utilities have launched local funds to support community groups, charities, parish councils and customers in vulnerable situations, which have rapidly evolved into industry-wide hardship funds. Such funds have been created by utilities across a range of different sectors, including water, electricity & gas¹. During outages utilities already provide face-to-face support, ensuring affected consumers have access to a wide range of key services such as hot food and drinks, blankets, emergency boxes, Wi-Fi etc. While community support is not a new concept for regulated utilities, historically they have been focused predominately on more vulnerable customers. What's different now is that there has been a very significant increase in the number of customers who now find themselves in a vulnerable situation. For example, research from Citizens Advice² shows that almost 11 million people have missed, or expect to miss, a utility bill, a clear sign of potential vulnerability. Hence, utility companies have had to respond to this need very rapidly, mainly through voluntary measures, and with the encouragement of Government and regulators.

In considering national readiness for new COVID-19 outbreaks and other pandemics, it is conceivable that this more deeply entrenched role in society could become a greater feature of the roles of regulated utilities in the longer term.

Since the start of the pandemic, demand for energy has structurally reduced, creating temporary cashflow uncertainty for energy networks –

Significant behavioural changes resulting from the 'stay-at-home' guidance have led to a structural shift in energy demand. For example, UK electricity demand is 17%³ lower than the long-term average, with low levels of 'transmission demand', which is particularly challenging for system operation. Similarly, overall gas demand in the UK has dropped below the five-year average and is 15% lower than the seasonal norm⁴. Water demand is also expected to experience a similar decline⁵, although the actual situation will vary depending on the ratio of commercial vs. residential customers. With economic forecasts predicting that a quick recovery is unlikely, a return to pre-COVID-19 levels of demand seems unlikely. Whilst the initial impact will be on energy and water retailers, other parts of the value chain further 'upstream' will quickly feel the impact, and regulatory interventions are already being put in place to allow suppliers to defer payments to network companies. However, the development of measures which impact utility revenues needs to be carefully thought through and considered holistically to ensure maximum effectiveness.

As regulators consider measures to address the challenges caused by COVID-19 they need to be careful to strike an optimal balance between short term cashflow, the stability of revenues for the network users and fairness of network charges to avoid unintended consequences e.g. distortion of forward-looking charging signals, transferring risk from existing to future consumers.

As the majority of non-essential works have been delayed, there is a significant risk that critical elements of the supply chain, which support utilities, are weakened

In delivering their obligations and critical investment programmes, regulated utilities depend on a reliable and agile supply chain. The social distancing and stay-at-home measures put in place to respond to COVID-19 have forced regulated utilities to suspend all non-essential work on their networks. For example, this amounts to "about 50%" of all work for UK Power Networks, according to its CEO

¹ https://www.norfolkchamber.co.uk/news/member/fast-funds-communitiesduring-coronavirus

² https://www.citizensadvice.org.uk/about-us/how-citizens-advice-works/ media/press-releases/millions-facing-financial-cliff-edge-when-coronavirusprotections-end2/

³ https://www.elexon.co.uk/article/elexon-insight-electricity-demand-down-by-17-during-COVID-19-lockdown/

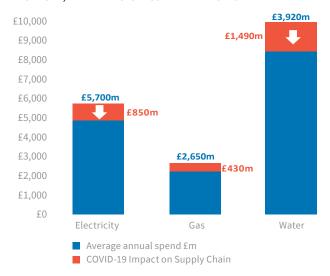
⁴ Sources: Wood Mackenzie, ENTSOG, National Grid

⁵ https://www.ofwat.gov.uk/regulated-companies/markets/business-retail-market/information-on-the-water-industry-and-coronavirus-COVID-19/

⁶ https://www.ofgem.gov.uk/publications-and-updates/managing-impact-covid-19-energy-market-relaxing-network-charge-payment-terms

in a recent interview⁷. For utility networks, the majority of this delayed non-essential work is predominately delivered by external contractors. Assuming that a similar percentage of work is deferred across all regulated utilities in Great Britain, this represents very significant foregone revenues for external contractors. Our analysis of the forecast expenditure from the most recent regulatory reports suggests that the value of the work deferred across electricity, gas and water utilities in the UK could reach £2.75bn in 2020, as shown in Figure 1.

FIGURE 1: ESTIMATED VALUE OF DEFERRED WORK IN Q2 2020 ACROSS ELECTRICITY, WATER AND GAS REGULATED NETWORKS $^{\rm 8}$



Source: Electricity, water and gas regulated networks

This raises the obvious question of the impact on the supply chain's viability, particularly in terms of its ability to remain financially resilient over the coming months. Whilst regulated network utilities will not require access to existing government support mechanisms, it may be that, particularly for smaller contractors, such support is needed to mitigate potential liquidity challenges.

For the essential works that are still being delivered, there is the challenge of ensuring access to the necessary equipment and supplies to deliver them, as COVID-19 has also disrupted the supply chains which provide key materials. For instance, UK water companies have already experienced some challenges in accessing the necessary chemicals for water and wastewater treatment, as EU wide supply chains have been impacted. Over and above current short-term supply chain issues, this could become a larger issue once existing lockdown measures are

Utilities might, therefore, have to consider developing implementation plans to increase their local supply footprint to create more sustainable supply chain solutions in the longer term and build greater optionality into them. Also, more consideration needs to be given to the financial sustainability of key supply chain contractors to ensure short term shocks don't unnecessarily put them out of business.

The COVID-19 threat has raised questions about the longer term resilience of the field based workforce, which are critical to the delivery of utility services

The Coronavirus pandemic is also causing a significant shift in working practices with the majority (those without 'key worker' status carrying out essential works) of the utility and contractor workforce transitioned to home working, and with significant uncertainty on when they will be able to return to work once current public health restrictions are lifted. In the context of regulated utilities, remote working is much less of an option for the majority of the field workforce (approximately 50% of the total number of employees) due to the site-based nature of their work. Getting such a large number of critical staff back to work requires the development of risk mitigation programmes in the short and medium term to enable them to work at common physical locations and across a range of different geographical locations. The susceptibility of the now dispersed workforce to greater cyber threats by using typically more vulnerable remote working / home-based IT infrastructure is also causing significant risks.

A growing number of cyber criminals and other malicious groups online are already exploiting the COVID-19 outbreak for their personal gain, as evidenced by the recent cyber attack on Elexon, the electricity system's administrator. The key systems and electricity supplies appear not to have been affected on this occasion but the UK's National Cyber Security Centre (NCSC) expect the frequency and severity of COVID-19 related cyberattacks to increase in the near future.

In the longer term, we need to potentially re-imagine the genuine risk of more high impact nationwide events taking place and put in place plans that ensure greater resilience among the workforce of utilities and

ceased, and a large peak of delayed non-essential works needs to be commenced at the same time.

⁷ https://utilityweek.co.uk/lockdown-halts-half-of-planned-work-by-uk-powernetworks/

⁸ FTI Consulting Analysis, on assumption Lockdown measures lasts until June 2019

⁹ https://www.ncsc.gov.uk/news/security-agencies-issue-COVID-19-cyber-threat-update

the contractors which support them. Such plans need to allow for speedy deployment, sharing of resources between utilities, flexibility in how to implement them, and sufficient latitude in the regulatory rules to allow utilities to take action quickly without fear of enforcement action.

Regulators have generally acted quickly to reduce the regulatory burden on utilities and provide clarity on priority works, although implementation differences between companies could still create compliance risks

Government and regulators quickly recognised that the pandemic required extraordinary and speedily delivered measures to enable utilities to remain focused on keeping the electricity, gas and water flowing. The relevant regulatory bodies have thus generally adopted a flexible approach to regulation during the pandemic, providing guidance on which works and services have to be completed (High Priority) and those which can be temporarily suspended or delayed (Lower Priority). Regulators have also reduced the usual regulatory reporting burden to free up resources for more critical functions. Such an approach significantly de-risks the regulated utilities but it does not completely remove the risk of future regulatory action where regulators deem that licence conditions have been breached. For instance, where companies interpret these temporary and urgent 'respite' measures differently from regulators, there remains the risk of retrospective regulatory action for perceived non-compliance.

Additional flexibility may need to be built into future regulatory compliance to ensure utilities do not waste critical time in seeking permission unnecessarily from regulators to take action, as long as it is in the interests of consumers and in the spirit of the regulations.

Potential long-term impacts

The pandemic could trigger a permanent shift in the role of regulated utilities and the regulatory frameworks which shape them. It is therefore clear that the crisis brought about by COVID-19 has created an unprecedented set of challenges for utilities in the short-term. However, it is also conceivable that with the ongoing risk of a second and third wave of the virus, and heightened awareness of other pandemics, this triggers a rethink of the longer-term role of utilities and the regulatory frameworks which govern them.

The evolving role in society of the utilities: from Universal Service Obligation to Universal Social Obligation?

As discussed, the last few months have clearly demonstrated the important role that regulated utilities play in supporting the customers they serve, beyond the responsibilities currently defined in their regulatory contracts. For example, through the creation of hardship funds, development of new information apps for customers, and redeploying employees to deliver food and medicines to vulnerable customers.

Whilst this expansion of role could well be temporary, it raises an important question about whether regulated utilities should play a deeper role to benefit society in the longer term. Should we, therefore, recast the existing 'Universal Service Obligation' into something more akin to a 'Universal Social Obligation'? Indeed, the current public health emergency has already brought into sharp relief not only the major increase in the number of vulnerable customers but also our reliance on critical national infrastructure to help serve them.

Rather than risk a significant divergence across geographical regions and utility sectors in tacitly reinterpreting the USO, it would be preferable to first debate whether such an enhanced role for utilities is beneficial in the longer term and if yes to direct regulators to consider it in a coordinated fashion, in consultation with customers and wider stakeholders.

If we redefine the USO for our regulated utilities, then minimum standards will need to be defined and funding for delivery against them agreed. Speed will be of the essence though as many new price control periods are about to be renegotiated or indeed commenced, including PR19 for water and RIIO for energy.

Should we embed much greater flexibility in our future regulatory frameworks to manage increased uncertainty?

The past few months have also demonstrated the robustness of regulated utilities in maintaining essential services during a public health emergency. However, such performance is being achieved not via fixed requirements set out in licence conditions or by delivering pre-agreed business plans, but rather through highly flexible collaboration between industry, government, regulators and local community groups. Such collaboration has had

to be rapidly put in place, been refined through speedy iteration with industry, and enacted almost immediately on the ground. This raises questions on whether existing regulatory frameworks need to have greater flexibility 'hard wired' into them, to enable similar divergence from existing regulatory frameworks to be undertaken in future through pre-agreed mechanisms that don't need to be invented on the spot.

However, before moving down this path, lessons need to be learned on the success of the current pausing of certain regulatory requirements (e.g. regulatory reporting and non-essential works) to assess the impact on customers, costs incurred and the actual impact on utilities from the lower workload and potential non-delivery of regulatory outputs. Moreover, challenges resulting from different licensees within the same industry interpreting urgent government or regulatory guidance in a different way also requires careful consideration.

Should we rebalance our regulatory frameworks between efficiency and resilience?

Since privatisation, customers have benefited from a relentless regulatory focus on 'delivering more for less', i.e. designing regulatory frameworks and incentives to drive out successively greater and greater efficiencies from the expenditure in our utility network infrastructure. However, if we face a situation where so-called high impact low probability events become more probable, we may need to rethink the implicit balance between still greater efficiency gains, and greater resilience to address future crises.

For instance, should we allow our utilities to employ a greater number of specialist front line staff to enable rapid deployment at times of crisis when social distancing and higher rates of illness inhibit their ability to deploy the required levels of field force teams? Equally, should we consider having greater 'headroom' in our asset base and maintenance programmes to ensure greater resilience to future public health or other national crises?

Can infrastructure spending accelerate us out of recession, and still deliver Net Zero amidst a customer affordability crisis?

Having proved their resilience during COVID-19 thus far, albeit, without the added pressure of the winter period, utilities are also being asked to deliver other key roles to support our economic recovery and meet critical policy goals. On the one hand, Government may rely on greater infrastructure spending to accelerate us out of a COVID-19 induced economic recession and keep us on track to

deliver critical Net Zero enabling investment. On the other hand, however, this comes at a time when customers may be least able to afford their utility bills, amidst increased unemployment and a significant drop in earnings.

Looking back at the experience from previous recessions, significant infrastructure investment could be accelerated to boost economic growth and address the expected shock. Indeed, there are many 'close-to-hand' opportunities to deploy such investment to support the public good, such as greater energy efficiency, expanded offshore grids to connect more wind power, decarbonised heat, electric vehicle charging infrastructure and increased electrification of rail transport. Such investments, to varying degrees, are already planned (in part to meet our Net Zero policy goal), but the question is in the current economic climate whether we should accelerate them or slow down their deployment. Achieving any accelerated investment will require clear government direction, close consultation with customers who will ultimately pay for it, and also the agreement of private investors to deploy additional capital, as most regulated utilities are privately owned in the UK. Regulators would still need to deliver incentive-based regulation to encourage utilities to innovate and find efficient and appropriate incentives to ensure optimal deployment of the capital.

They would also need to encourage companies to anticipate the future needs of consumers and develop efficient and innovative ways of delivering for them over the long term. For their part, regulated utilities would need to demonstrate greater collaboration and system thinking not just to benefit individual customers, but society as a whole. For any acceleration in investment agreed, utilities would need to offer Government and regulators a suite of programmes and investment that have clear and measurable societal and customer benefits, as well as being able to drive economic recovery.

Is a wave of regulatory and policy change looming?

As utilities, regulators and government continue to adapt in the short term to the ongoing health emergency, we will need to rapidly shift to considering the implications in the longer term. It is clear that regulated utilities are already playing an important role in maintaining our critical national infrastructure and supporting the most vulnerable in society, and in ways that often go beyond their traditional remit.

UK REGULATED UTILITIES POST COVID-19 06

We, therefore, need to consider whether such temporary role changes should be entrenched in the longer term, and how regulatory frameworks could be adjusted to enable that. Should the concept of the USO, for instance, be worthy of review, as some commentators assert that it is being re-interpreted anyway?

Regulatory frameworks may also need to be adjusted to take account of the ongoing need for flexibility and potentially adapted to rebalance priorities. For instance, some have argued for a rebalancing between the continued

drive for greater efficiency and the potential need for heightened asset and people resilience to better manage future possible public health and other high impact events.

Moreover, much more considered thought must be applied by Government to how Net Zero can still be delivered, whether regulated utilities should accelerate their investment to help to respond to the COVID-19 induced economic recession, and whether this is possible amidst the current customer affordability crisis.

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