

# Future Water Workshop: Exploring a Community Ownership Approach to a Utility

University College London

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## Attendees

John Beckford	Partner	Beckford Consulting
	Visiting Professor	UCL
Carla Washbourne	Associate Professor	UCL
David Dewhurst	Thinker	Cybernetics Society
Tom Dolan	Senior Research Fellow	UKCRIC / UCL
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Corina Kwami	Director of Strategy	Purpose
David Nwankwo	Doctoral Candidate	UCL
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## Key takeaways

A future system should be:

- Professionally managed
- In the interest of stakeholders (who may be the users)
- With a systemic regulatory mechanism (economic, but also taking into account many other elements of performance) and
- Recognising interdependence with other infrastructure elements

## Elements of a potentially successful model

- A single share for every user to reinforce tangible sense of ownership
- Community role in the governance system (e.g. community oversight via presence on board)
- Development of an organisation to articulate stewardship and sustainability
- An independent body as a regulator capable of monitoring and with powers towards accountability (imposing sanctions of some kind)
- A mutual or community interest business model with capital raising based on tradable bonds (as with government bonds) and tied to financial probity requirements to mitigate risk

## Introduction

In November 2022 the authors met to consider whether community ownership might offer a suitable model for water utilities and their governance. The workshop was inspired by a critique of the current situation in the UK.

1: Nationalised water companies, privatised in the UK in 1989, were not user focused and were arguably underfunded by government. That underfunding reflected, at least in part, a shift in government spending in the latter part of the 20<sup>th</sup> century from physical to social infrastructure i.e., from things to people.

2: The privatisation of water utilities appears to have delivered some improvement in user focus and some improvement in the physical infrastructure but, acknowledging that the statutory duty of directors is to maximise shareholder benefit, has also seen significant borrowing by water companies coupled to extraction of profits for shareholders.

3: When the water companies were privatised in 1989, their external debt of £5bn was written off by the UK Government. Water company's current collective debt is reported as £54bn with 20% of water bills being applied to servicing that debt while cumulative dividends paid to shareholders amount to £65.9bn. That proportion looks set to increase with the recent rises in interest rates.

Source: <https://www.theguardian.com/environment/2022/dec/01/water-companies-debts-since-privatisation-of-wat-refuses-impose-limits>

4: In parallel to increasing publicity over sewage discharges to waterways around the UK during heavy rainfall events, during recent dry weather, ITV reported that water companies have been releasing untreated sewage into rivers and other water courses.

Source: <https://www.itv.com/news/2022-11-23/water-firms-releasing-sewage-into-waterways-during-dry-weather-campaigners-say>

5: Subsequently, on 17<sup>th</sup> December 2022, Thames Water stated that: "Household water connections will need to be turned off "for weeks" on end and widespread rationing introduced as summers get hotter....."

Source: <https://www.telegraph.co.uk/business/2022/12/17/water-supplies-will-turned-weeks-amid-summer-heatwaves/>

Beckford (2021) notes in Intelligent Nation that the UN Development Goal (Number 6) includes providing "water and sanitation". Meanwhile one of the largest water companies in the UK, a country that considers itself developed, is simply not committing to fulfilling a basic obligation but explicitly stating that it may not be able to do so. If the observable purpose of a water utility is to provide potable water and/or remove dirty water via the sewage system, then neither the nationalised nor privatised ownership and governance models in the UK appear fit for purpose at least as currently operated and regulated.

Clearly, we need an alternative to the current models that meets public service, health and well-being requirements, while also achieving positive social and environmental outcomes. Other models (public and private ownership) having been tried in practice and shown to be lacking, the group opted to explore whether a community ownership model might be a suitable alternative. In such a model the notion of shareholder benefit could perhaps be refocused on provision of service rather than shareholder dividends because the shareholders would also be the users.

## What does 'Community Ownership' mean?

Community ownership has a number of possible interpretations, one of which would be similar to the 'nationalised industry' model in which government, whether national or local, acts as the 'owner' on behalf of the community served. In this case we are considering something more in line with that adopted by Welsh Water although Scottish Water, never privatised, offers an example of state ownership with independent regulation. A second paper will consider that in more detail.

### ***Is there any room for a Hybrid Model (publicly owned/funded/financed, community operated, independently regulated)?***

#### **Existing examples of alternative ownership**

*Welsh Water is: "owned by Glas Cymru a single purpose company with no shareholders and is run solely for the benefit of users"*

Source: [www.corporate.dwrcymru.com/en/about-us](http://www.corporate.dwrcymru.com/en/about-us)

*The company is limited by guarantee, has a Board of Directors and has 62 'independent members' appointed by the Board under a published membership policy. Welsh Water is operated on a not-for-profit basis and, in the absence of equity investment, funds some aspects of its activities through borrowing.*

This offers a different concept, currently operational in the real world, that of ownership of the resource and service rather than ownership of capital. It seems to assert the concept of stewardship and recognises a strong view of water as a public good. We will later explore the implications for decision-making and financial management.

Other examples where utilities and commodities are embracing different ownership models were also highlighted in the workshop.

#### **Community Ownership, Further Examples:**

##### **Huawei (from the [Huawei website](#))**

*"Huawei is an independent, privately-held company. We are not owned or controlled by, nor affiliated with the government, or any other 3rd party corporation. In fact, Huawei is owned by our employees through an Employee Stock Ownership Program (ESOP) that has been in place since the beginning. No one can own a share without working at Huawei, and as of 2018 there were 96,768 shareholding employees. Our founder, Ren Zhengfei, owns a 1.14% stake in the company."*

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We need though to consider both the scale at which people are engaged and where ownership happens. We must recognise that not all communities or individuals will want to be at the table and we need to consider who has power and influence in

governance. A transparent, consistent mechanism must be developed for this that will act always in the interests of the users; present and future. The issue here is how to define, and defend the space for, independent members. Welsh Water, as stated, operates a mechanism for appointing 'independent members' but that process itself is overseen within the Company, i.e. the Board, in effect, appoint the people to whom they report. We cannot and do not criticise any current or historic appointments in this regard, simply assert that the potential for conflicts of interest remain high; 'quis custodiet ipsos custodes' (who guards the guards themselves).

Ulrich (1983) suggested that an approach needs to be taken to public decision-making which addresses the issue of power in the dynamical relationships between owners, users and experts in particular systems. There are a number of additional factors to be considered in developing community ownership ideas. How, for example, can a community be appropriately represented across a range of interests, demographic groups, geographies and social groups as well as accommodating interests of commercial users. Is a commercial organisation to be included in the definition of social community? Similarly, representation in the governance model will need to be structured to reflect all dimensions. Critical in this regard is sustaining community interest and engagement over time. It is evident from national and local elections that it is difficult to sustain democratic engagement over a longer term than election cycles and we must accept the possibility that this will be even more challenging for a utility. The risk is either disinterest or over-interest by individuals or pressure groups. The solution, perhaps, rests in a 'jury' style mechanism with individual users invited to (and rewarded for) participation in governance while avoiding the risk of special interest group domination or self-nomination.

### **The real value of water**

There is currently perceived to be a disconnect between users and service provision. Water is considered, by many, to be cheap and plentiful and thus it and its management is not treated as being significant. Current experiences of drought, shortage and leakage, suggest that water should be more highly regarded not just by the current generation in their own interest but by and for subsequent generations. A generational shift is required which may lead us to consider whether the governance model should be balanced in favour of the future – with all that implies for investment, reward, efficiency and effectiveness.

This raises fundamental philosophical questions about how we value water resources? In the UK, Water is not subject to value-based pricing or traded as a commodity with a free market value. If it were perhaps it would be a great deal more expensive and price volatile. If provision of both water and sewerage services are considered public goods, with public health value then its effective provision benefits the whole economy, the opportunity cost of disruption likewise affects the whole economy. This value is challenged by an assumption that the provision of water and sewerage services have to cover costs directly from the revenue they raise but the alternative, a system funded by government through taxation, risks recreating past weaknesses.

A community owned model would need to balance the public provision and public health value with the need for financial probity and resilience. This would be easier in the absence of a distributable profit model.

Recognizing that there is probably a minimum scale at which collection, treatment and distribution of water is economically efficient, there is an observable trend towards small scale ownership from an ethical perspective e.g. innovative organisations like Ripple Energy, challenger banks and mutuals such as building societies. It may be that further additional extensions of the notion of community, mutual or employee ownership can come into being, but each generates challenges around governance, regulation and funding. Full employee ownership is one further possibility but we consider that the cost of acquisition would be high and the performance liability risk in relation to health, natural and unnatural disasters would render this problematic. It would also not solve the challenge of retaining profit within the business.

### **Community Ownership, Further Examples:**

#### **Ripple Energy (from [Ripple Energy website](#))**

*“Ripple doesn’t own any part of the wind farm, it is owned by the co-operative and co-investors. When you invest in the wind farm, you become a member of the co-op. The co-op is a democratically owned and controlled entity, which can make its own decisions.”*

#### **Housing Associations**

*Housing Associations have some core common characteristics that might prove valuable. They are not allowed to distribute profits. They have special access to capital funding, and they have independent constitutions with representation from the communities they serve within their governance arrangements (see [National Housing Federation](#))*

### **How might governance and regulation work?**

If we accept the UN Development Goal (SDG6) of "providing water and sanitation" and seek to align that with the maximization of shareholder benefit (the obligation of company directors), then it is clear that we need to reconcile the tension between the two. This can simply be achieved by proposing that true shareholder benefit is not return on investment but the availability of water, and that profit (earning more than we spend) is not an objective but, as Beer stated it in the 1970's "a constraint upon the continued existence of the organisation". That is, probably, to argue that water is a public good and that it must be managed to serve two interests, that of the local and immediate community of users and that of the nation as a whole; and, that in doing so it must earn its keep, but no more than that. This would be consistent with the governance of community interest companies, public service mutuals and so on where profit is not distributed but reinvested in the business, deployed to reduce prices or applied in support of those for whom the prices are unaffordable.

The approach outlined would remove the extraction of profit to shareholders, retain cash generated in the business and encourage investment in achieving the desired outcomes. Nonetheless, external regulation would still be required but would need to be systemic, much richer in concept and stronger in action than is currently observable. Systemic regulation would need to consider issues of availability, quality, social value, economy and interdependence with other infrastructure services (in particular energy and ICT).

Funding of such a body should not be dependent directly on the industry being regulated – and we state that as a principle for all regulation. If "he who pays the piper calls the tune" then an industry regulator funded by its industry is likely to be less than independent in its views, rules and actions. There is also a need to avoid 'gaming' of regulation by the development of independent, objective standards of and for performance in a number of dimensions of the industry against which the companies can be held to account. Of course, as with any system of measurement, what gets measured will get done, so there will be a need to ensure a balance of regulation which is not overly intrusive or expensive but is reliable and transparent. There would be a need to regulate the responses of water companies to regulatory challenges so that they were compelled to take action on regulatory matters rather than take a commercial view and 'pay the fine'. Current developments in data science can be of assistance in that regard. These developments would also assist in the consideration of integrating regulators to reduce the regulatory burden and ensure alignment of outcomes. Currently, water and sewage policy frameworks differ between England, Wales, and Scotland. In England the [Department for Environment, Food and Rural Affairs \(Defra\)](#) set the overall water and sewerage policy framework (standards, legislation, special permits). Under this framework, the water industry in England<sup>1</sup> responds to: an economic regulator ([Ofwat](#))<sup>2</sup>; an environmental regulator the EA (Environment Agency)<sup>3</sup>; a drinking water quality regulator (The Drinking Water Inspectorate ([DWI](#))); a body representing consumers (The Consumer Council for Water ([CCW](#))). In Wales<sup>4</sup>, Defra's role is fulfilled by Welsh Government, and The EA's role by [Natural Resources Wales](#). In Scotland, water legislation is responsibility of the Scottish Parliament<sup>5</sup>. Public drinking water and sewerage services are provided by [Scottish Water](#), a public company accountable to Scottish Ministers and Scottish Parliament<sup>6</sup>.

There is, in addition, a need for a fallback position, a mechanism through which central or local government can intervene in the event of system failure. This could be provided as an additional dimension to the regulatory regime and there are already established examples such as in the rail industry and in banking.

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<sup>1</sup> In England the water industry comprises 23 licenced regional water and/or sewage undertakers of various sizes <https://www.ofwat.gov.uk/regulated-companies/ofwat-industry-overview/licences/>

<sup>2</sup> Initially post privatisation in 1989, economic regulation was undertaken by The Office of Water Services and the Director General of Water

<sup>3</sup> The Environment Agency replaced the National Rivers Authority (NRA) in 1996. The NRA had been responsible in the period 1989-1996

<sup>4</sup> In Wales, the water industry comprises 2 licenced regional water and sewage undertakers <https://www.ofwat.gov.uk/regulated-companies/ofwat-industry-overview/licences/>

<sup>5</sup> see <https://www.gov.scot/publications/water-industry-legislation/> . From <https://www.gov.scot/policies/water/>

<sup>6</sup> From <https://www.gov.scot/policies/water/>

## How might it be funded?

Water collection, treatment, delivery and recovery is a capital intensive activity and, as such, requires long term and patient capital if it is to be run on a sustainable basis. The initial evidence from the industry is that, while remaining the right side of junk bond status, at least some water companies have extracted permanent capital (equity) and replaced it with loan capital, that capital in some cases being provided by the shareholders at rates of interest that may be both greater than market rates and provide a higher return on capital than would be achieved through dividends on share-holdings. The effect is that such companies have a higher cost of capital *and* greater borrowing than their investment in facilities and the business risk would suggest are necessary.

In any alternative ownership and governance model, this capital challenge will need to be addressed, such businesses will always need long term capital. If the community ownership model is adopted this will shut off access to conventional equity markets as the business will never be 'for sale;' indeed such conventional equity would replicate the current issues as the obligations to shareholders would be unchanged. It will therefore be necessary to borrow the necessary capital but to do so in a way which does not impair the performance of the organisation. This could be achieved through a mechanism such as the issue of long-term bonds or debentures, specified for the creation or maintenance of major capital assets. These bonds could be subject to trading on the stock exchanges alongside government gilts. This would give certainty in the cost of capital to the water company while being attractive to investors seeking low risk opportunities with stable returns. Governance of the application of funding would need to be rigorous to ensure that capital raised was only applied to the specified purposes and not re-directed to other matters.

Complementing this, it would be necessary to meet current operating costs of the business from current income. Current revenue may include some element of contribution to capital costs such that the need to borrow is reduced over time and/or the business builds up a resilience reserve to address unforeseen issues. It is beyond the scope of our discussion to propose a fully worked out solution, our task is to raise the possibility of alternatives.

The value of the water company assets now becomes an important consideration. In a situation in which they cannot be sold (or mortgaged) they have no market value and, as such, their value is rooted in the whole system contribution to the desired outcomes rather than realizable capital. A significant challenge to progress in this regard is that the current owners will be placing a different, commercial value on the assets, although that valuation will be based on their earning power rather than 'bricks and mortar'. In an economy of rising interest rates coupled to high levels of borrowing the value of those assets (assuming a market-based rate of interest) will perhaps fall in line with the available return. If the interest rates are not market-based then there is probably a recourse to regulators as it would imply that prices are too high.

## Summary

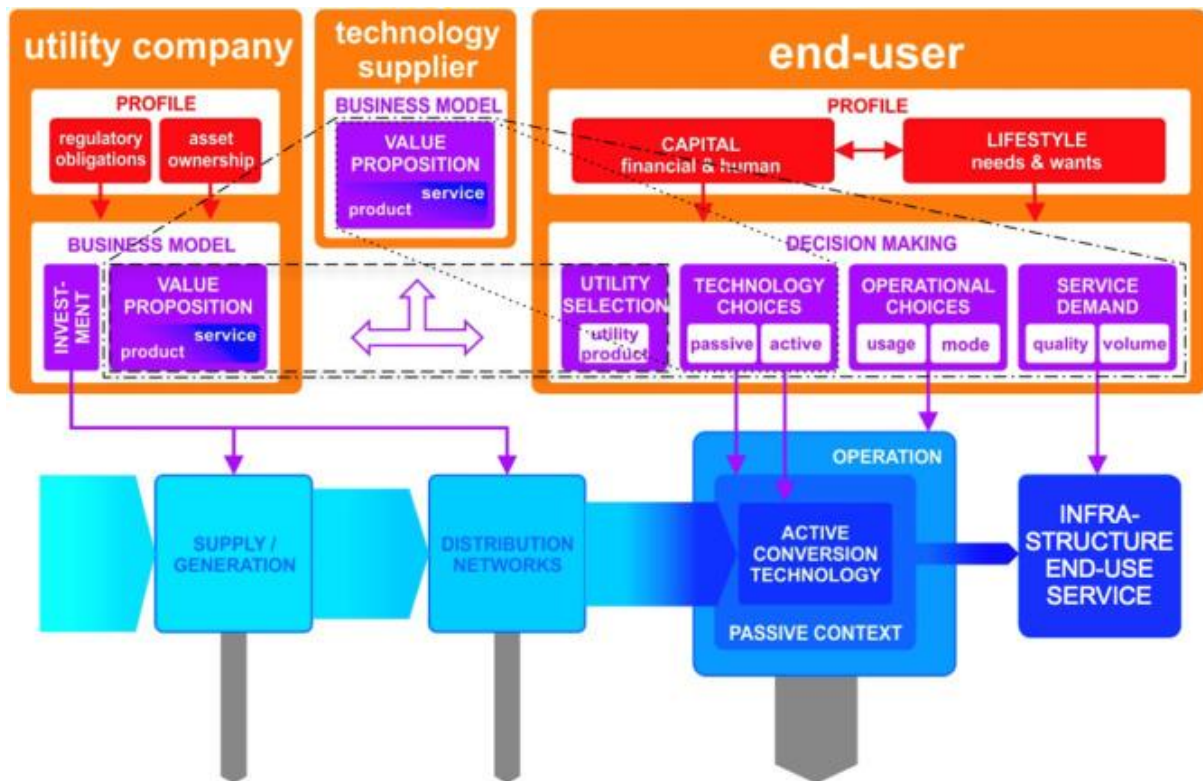
Without repeating the content of the paper, our reflection on the process is that, as partly demonstrated by the Welsh Water example the possibility exists of owning water companies (and perhaps other utilities) on a community basis while public ownership cannot be ruled out (e.g. Scottish Water). The practical problems do have possible solutions. The upshot would be to continue to operate such utilities but through a different ownership model to align the interests of owners and users by making them essentially the same community. Profits earned would be reinvested in the business, with potential corporation tax benefits accruing, and over time improving the value proposition in the multiple dimensions of user service, sustainability and financial value.

Our next steps will be to publish and promote this document with a view to stimulating debate and discussion of the possibilities raised.

## Resources shared in session

- Miliband, E. and Lloyd, G. (23 Jun 2019) Bridge over troubled water: the case for social ownership. Podcast: Reasons to be Cheerful <https://podtail.com/en/podcast/reasons-to-be-cheerful-with-ed-miliband-and-geoff-/92-bridge-over-troubled-water-the-case-for-social-/>
- Flyvbjerg, B. (2007). Cost overruns and demand shortfalls in urban rail and other infrastructure. *Transportation Planning and Technology*, 30(1), 9-30. <https://www.tandfonline.com/doi/abs/10.1080/03081060701207938>
- Ostrom, E. (2015) Governing the Commons <https://www.cambridge.org/core/books/governing-the-commons/A8BB63BC4A1433A50A3FB92EDBBB97D5>
- Beckford, J. (2021) The Intelligent Nation, How to Organise a Country, Routledge, UK
- Beer, S. (1985) Diagnosing the System for Organisations, Wiley, UK
- Ulrich, W. (1983) Critical Systems Heuristics of Social Planning, Haupt, Berne
- Mazzucato, M. (2013) The Entrepreneurial State <https://marianamazucato.com/books/the-entrepreneurial-state>
- Knoeri et al (2016) End-user centred infrastructure operation: towards integrated end-use service delivery <https://doi.org/10.1016/j.jclepro.2015.08.079> (Figure below)





Knoeri et al (2016) Fig. 1. End-user centred infrastructure operation: the lower half depicts the physical layer of infrastructure end-use service delivery, blue boxes indicate processes, blue arrows product or energy flows, and grey arrows corresponding losses; the upper half depicts the socio-economic layer, with orange boxes representing socio-economic actors, red boxes their profiles, and magenta boxes decisions directly affecting the physical level or other actors. Contractual boundaries are delineated for the traditional utility (dashed line) and technology provision (dotted line), and for a performance-based service contract situation (dash dotted line). (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)