

Power to the People

***How to achieve zero emissions
through public ownership of the
retail operations of the big six***

Power to the people

Introduction and context

The debate about the ownership of key public utilities in the UK has taken off since the election of Jeremy Corbyn as leader of the Labour Party. This has led to re-appraisal of the merits of public ownership of key utility assets. A range of opinion polling also suggests public ownership of energy is strongly supported.

Alongside the debate on public ownership has been the increased demand for urgent action on climate change and the declaration of a climate change emergency. This has re-energised the notion of rapid decarbonisation and the need for energy policies to enable this. We cannot simply wish for decarbonisation. A bold plan is needed to make it happen.

Developing policies around addressing climate change have also been given substance with the Prime Minister's recent commitment for the UK to reach net zero carbon emissions by 2050 in an attempt to deliver the Paris Climate Change Agreement goal of limiting global temperature rises to no more than 1.5C. In the same week a report from [BP](#) showed global emissions rose at their fastest rate since 2011 last year, while progress on climate change remains slow.

The recent conversations around energy re-nationalisation have focused purely on the transmission and distribution assets – the pipes, pylons and cables. These operations are regulated private monopolies working within set regulatory periods with fixed operational plans that secure a return for investors. These have generated handsome profits and healthy dividend payments to investors. But it could be argued these regulated businesses have not done enough to facilitate decarbonisation of the energy system and, at times, have been an obstacle to progress.

A consortium of private investors, some of which are based overseas, own many of these businesses. Some like National Grid are publicly listed on the UK Stock Exchange.

The focus on the transmission and distribution assets is seen by some as necessary to control the system and so drive through changes to deliver decarbonisation and encourage more diversity and local solutions to energy challenges.

While not seeking to undermine the case for public ownership of these assets, this report looks at the compelling case for public ownership of the retail supply and customer segments of the energy system.

These proposals could either be complementary to the public ownership of transmission and distribution, or a stand-alone change that would deliver substantial progress in achieving the decarbonisation effort required to hit net zero by 2050. It could also be achieved at a fraction of the cost of alternatives and protect consumers in a more efficient and progressive way. Alongside these significant gains would be securing the many energy jobs currently at risk and the retention of a skilled unionised workforce transformed into delivering decarbonisation and winning heart and minds of UK businesses and consumers.

Committee on Climate Change report

In its report to the government (May 2019) the Committee on Climate Change (CCC) set out how the UK could achieve the goal of reducing greenhouse gases to zero from 1990 levels within an expected economic cost following the Paris Agreement. The target had been to

reduce greenhouse gas levels to 80% below 1990 levels by 2050 until the Prime Minister's announcement last week, though this commitment has still to be enshrined in law.

The [CCC](#) recognised that although these targets are achievable, at present current policy is insufficient and as a result the UK would not only fail to reach net zero by 2050 but also the 80% reduction too. The CCC went on to say "challenges across sectors must be tackled vigorously and in tandem, beginning immediately."

The scale of the further change required and outlined in the CCC report is massive (the UK is falling short of the progress required in 15 of the 18 measurable areas of activity). A significant portion of the burden sits within energy, although much progress has been made in the electricity sector.

One critical element often ignored is that achieving net zero requires not just policy changes, but the people to deliver them and a supportive public committed to making the necessary domestic changes. Without these two elements the UK will fall short because:

- The workers won't be available to organise, assess, persuade and make the necessary adaptations to UK homes. The energy workforce is already fractured, demoralised and uncertain of its future. In the world of customer service and retail supply, thousands of skilled jobs have been lost, while in the service/repair and distribution occupations real recruitment and retention issues exist. In the energy sector, workforce projections suggest further pressure lies ahead. The challenge of developing an expanded and skilled workforce to assess, persuade, organise and deliver the in-home improvements required to address decarbonisation, from basic insulation to smart meters and solar panels, is massive. Just getting UK homes up to an EPC rating of C will require more than [100,000 extra workers](#) over a 15 year delivery period. This would be compounded by the need to change or adapt homes and businesses to deliver warmth as the country moves away from methane gas.

In the foreword to the *Energy and Utilities Skills Partnership in its Workforce and Renewal and Skills Strategy 2020* Dr Tony Cocker stated:

"We face an ageing workforce, intense competition for many of our core skills, growing complexity within roles, a rapidly changing technology environment, a need for more diversity of skills and the people who perform them, rising labour costs and on-going difficulties in attracting sufficient new and young people."

Clearly without a green army of workers motivated, skilled and able to achieve decarbonisation, all aspirations to do so will fail. This point has been consistently ignored, as has the ability to organise the training and development of new workers and support them in good employment.

We often hear the saying 'There can be no jobs on a dead planet', but the reality is that without workers who are skilled, able and supported to help us all decarbonise on a seismic scale the dead planet does indeed loom ahead.

- In addition seeking to decarbonise on the scale required could end up being politically unpopular as bills may increase (likely under the current system), hitting the poor and vulnerable the hardest because they tend to live in the least energy efficient housing. The stability of the energy system would also be put under further pressure by the move to large-scale wind and solar power. This is likely to be exploited by populist politicians, as has already been in the case, most recently in Australia. In this Australian Broadcast Corporation [commentary](#), the following observation was made:

“The Lowy Institute polling data also tells us something about when climate support rises and falls. Simply put, climate concern is at its highest in Australia when there's a perception (eg 2006, 2019) that the government isn't doing anything about the issue and isn't taking it seriously. Conversely, climate concern has been at its lowest as the government began to pursue substantive climate action, bottoming out when the so-called carbon tax was legislated in 2012. In this election, Australians were suddenly faced with a prospective Labor Government ready with a suite of measures to tackle climate change, and they were presented with an account of these measures as a devastating economic blow to Australian prosperity and growth. However discredited much of this modeling ultimately was, and the broader fear campaign about everything from electricity prices to the end of petrol-based cars, it raised the spectre of immediate economic sacrifice for Australians.”

Winning the hearts and minds of energy consumers really should not be underestimated nor should the challenge of having a workforce able to deliver decarbonisation. Both these challenges could scupper attempts for the UK to decarbonise to the required level. UNISON believes solutions to both these challenges can be found within the retail and customer arms of the energy sector.

The excluded retail sector

Currently not included in any current public ownership proposals for the sector are the customer and retail operations of the big six energy retailers. These have the lion's share (around 75% although falling) of customer accounts in both gas and electricity. The big six retailers are, in order of market share: British Gas (Centrica), SSE, E.ON, EDF Energy, Npower (Innogy) and Scottish Power (Iberdrola).

These retailers are those most familiar to the public and have received widespread consumer dissatisfaction and complaints, often because of the failings of the whole liberalised energy market. The widely perceived popularity of public ownership is linked to the perception that it's the big six retailers that would be nationalised.

The reality is that in recent times, and particularly over the past three years, these same retail and customer operations businesses have come under intense pressure, essentially from two connected challenges:

1. **The rapid rise in small retail competitors** has precipitated a huge growth in account switching (a record 5.8 million in 2018), predominantly away from the big six. Some 70 different energy brands now exist, although almost none of them make any profit. Many are loss making, including the two large municipal entities, Robin Hood and Bristol Energy, which have borrowed millions from the local public purse. Others price products that are deliberately loss leading to gain market share and some have already gone into liquidation – a process that quickened at the beginning of 2019. These small suppliers are often able to avoid the various social obligation measures the big six can't such as ECO, Warm Homes and Smart. These can account for as much as 8% on a typical energy bill and can be the difference in the tariff price offered to customers. The set-up of some of these new entrants to the market also raises questions about probity, behaviour and how risk is proportioned (leaving much with consumers but not investors).
2. **The introduction of the government's energy price cap** has put a limit on the default energy tariffs referred to as standard variable tariffs (SVT). The cap was set at the level the Office of Gas and Electricity Markets (Ofgem) believes will save SVT customers around £76 per annum. A typical dual fuel customer will pay an average annual bill of £1,137. For many of the big suppliers the percentage of customers on

an SVT is high (for example at SSE it's around 70%). These are the profitable components that allow discounted tariffs to be marketed. The removal of the SVT premium overnight reduced retailers' profit margins to almost zero leading to instability and job losses. All but British Gas and SSE have reported losses associated with their customer business and as a result any profit made has significantly reduced. This has been confirmed by Ofgem, which recognises that profit made on SVT customers is set to fall to almost negligible levels. It also means all suppliers will struggle to generate returns and those offering the best tariffs will only do so on a loss-leading basis.

The current landscape

An understanding of the small margins that now exist within customer operations and retail in the big six must be appreciated when considering the future. These operations are clearly in a state of crisis, which can be seen in the massive number of job losses announced in the past few years. There have been site closures across the UK and it's likely a further 3,000 jobs will go in 2019.

This also explains the reasons behind both the merger of the customer and retail operations of SSE and Npower (owned by Innogy) and its subsequent collapse in late 2018. Essentially SSE wanted the retail business off its books as it was dragging its overall financial performance down (SSE is also present in distribution and generation). Npower has consistently lost money for its parent company and Innogy was willing at the time to take a loss of approximately £0.5bn by writing down its book value to offload. Since the collapse of the merger SSE has confirmed plans to withdraw from the retail market by selling off its retail operations.

The big six retail and customer operations are at best making only modest returns and at worst actual losses. This situation will only get worse as the impact of the price cap is worked through. The only real value in running this kind of operation will arise through the selling of complimentary products such as heating systems, servicing contracts, new high specification products linked to smart technology and energy efficiency products like solar. This makes this area of employment rather uncertain for lots of energy workers and UNISON wants to find a way to protect these jobs, not just now but in the future too.

It also presents an opportunity for the government to acquire a significant component of the energy industry for a very reasonable outlay when set against the huge potential such an acquisition for the public would bring in terms of the country's progress towards net zero and a greener future.

Why is this so important?

Retail and customer operations are a significant proportion of the big six's work. This essentially encompasses all interaction with customers – from general enquiries to complex work covering purchasing and energy trading, vulnerable customers, logistics to sales, complaints to billing, moving home to emergencies and domestic energy services to efficiency schemes. It also includes certain field operations linked to metering. The work has been subject to fragmentation, with major employers outsourcing and off shoring operations to reduce cost but this has had mixed results. It means many thousands of workers aren't employed directly.

Although often overlooked, the customer and retail operations are critical elements (if not the most critical) in achieving the net zero goals set out by the Committee for Climate Change

report released in May 2019. They are also essential to ensure consumers buy into the concept of decarbonisation and understand how it will benefit them.

The case for the nationalisation/public ownership of retail and customer operations.

There is a compelling argument for the public ownership of the retail and customer operations. Not simply because this is an area in which thousands of energy jobs exist to provide the basis for the required 'green army' to help the UK reach net zero emissions. Customer and retail operations are also strategically important and if publicly owned could be the driver of significant and positive change to allow a present or future government to deliver decarbonisation, meet public expectations and do so in a highly cost effective manner. This policy could be popular and deliver noticeable improvement within months.

1. To ensure security of energy supply and 'keep the lights on'.

A single (or possibly regional) public energy retailer could purchase energy on the wholesale market for some 20 million households. This retailer would have huge scale to drive wholesale prices and be able to predict prices effectively to protect consumers from price shocks and supply issues. The ability to do this would allow contracts to be entered into with generators securing supply well into the future.

It would also allow supply decisions to be taken in the national interest over the long term. For example the development of increased energy storage could be taken by the new supply business to deliver its objectives around security.

The new national publicly owned supplier would own the energy bill and with it all the demand information and the metering operations including the smart metering programme. This crucial information would allow the supplier to plan more effectively on the supply side and is essential to deliver energy security.

The new supplier could utilise its position to develop renewable generation assets or promote further renewable power. The scale of the business would allow the publicly owned supplier to enter into long-term supply contracts or develop generational assets of its own.

2. To ensure energy costs are affordable for consumers and businesses.

The single or regional purchasing of energy on the wholesale market would hopefully control prices as explained earlier although it should be recognised that prices would be expected to increase to support decarbonisation. In addition, almost all energy consumers currently have direct contact with their energy supplier, which is not the case with any other part of the energy system. This gives it a unique position within the energy system and a body of knowledge around customer needs.

The issuing of energy bills is organised through the energy retailer. This creates an opportunity to link the bill to consumption plus regulated charges for the network. Ownership of the energy billing process by a publicly owned supplier could open up many opportunities to establish charges based also on the ability to pay, the EPC (energy performance certification) rating of the home or to drive resources to support energy efficiency or decarbonising the gas network. The charges levied could be better controlled and passed on to consumers, while protecting poorer or vulnerable households.

The most effective way in which an energy supplier could address fuel poverty and ensure consumer costs are affordable is by increasing investment in energy efficiency. This would

require a significant labour force to work with consumers to deliver the appropriate solutions. This labour force would be available through the public energy supplier. More importantly as a public body it would be able to coordinate this critical work in a systematic manner to ensure it happens and consumer resistance is overcome.

3. To ensure we meet our climate change targets and transition to a low-carbon economy

A single national/regional buyer for energy should be able to apply genuine pressure on generators, not just to lower the purchasing costs but to also be in the position to drive the greater use of renewable or clean energy production or give greater security to renewable/clean providers to encourage more investment. This is critical if external investment is to be attracted to increase renewable and clean generation capacity.

The public energy retail/supplier would have a relationship with all its customers, be able to understand and support them to reach their most efficient use of energy. The UK has some of the worst housing stock in developed economies in terms of energy efficiency. This has to be addressed if the UK is serious about decarbonisation, but we shouldn't assume that all consumers are on side with this or understand the need for this to happen.

The smart metering programme is a case in point. It has experienced significant public resistance and consumers are unsure as to its benefits, many believing it to be a commercial ploy that will cost more. The delivery of the programme is hugely fragmented, the technology inconsistent and associated costs inefficient. Many of the problems with the smart metering programme wouldn't exist if a single publicly owned energy supplier had been tasked with the programme. A door-to-door approach could have been followed using standard technology and requiring everyone to install them. Costs for installation would have been reduced, density increased and consumers supported more effectively.

Customers in geographical locations would largely be with a single supplier/retailer and would be able to co-operate more freely to develop community generation solutions, such as communal solar/wind, district heating, combined heat and power plants or other local responses to energy issues. Priorities would then be driven by the need to reduce carbon consumption not to increase customer numbers or inflate returns for shareholders.

Regardless of what future decision is taken to decarbonise domestic heat, a significant programme of works will be required. These will require substantial planning, logistics and public engagement and education alongside workforce development. The scale required for this and the expertise/experience is only to be found in the energy retail/supply businesses.

This was in part demonstrated with the smart metering installation programme. Despite its many faults, where the programme showed itself capable was in the recruitment and training of staff to deliver it. Although the programme has been a lesson in how not to deliver a national programme, the development and deployment of workers was not an area of complaint.

4. Making UK homes energy efficient

Pound for pound ensuring UK homes are energy efficient is the best use of any money available for investment. Getting millions of UK homes to an EPC C rating within a first term of any new government is a critical and important target if decarbonisation is to happen. A single public energy company would make this task far more achievable.

A single public supplier could be entrusted with all available data to ensure priority for action is targeted straight away at the UK's poorest households. Currently this information is held by various agencies and is not shared.

As with plans to decarbonise heat, the ability to deliver efficiency programmes would require systems and people, which energy retailers already have or could easily expand. They also have the necessary procurement and engineering skills and could develop supply side manufacturing to enable targets to be met.

Relying on councils to encourage their local residents to become more energy efficient is not realistic, especially with the many challenges they already face following years of austerity. A new public energy supplier/retailer, which had taken on the combined workforces of the big six, would bring significant scale to this drive and operational know-how. It could hit the ground running and achieve the necessary economies of scale necessary to make this an effective intervention. This is a key point and should not be underestimated. The CCC report is clear, to ensure the UK hits net zero we need to hit the ground running and stay running until the race is won.

5. Winning hearts and minds

The drive to win public hearts and minds is essential and should not be underestimated. Having a public supply company would allow a level of engagement with consumers that we've not seen before.

Thousands of workers spend their time talking to energy customers about bills, debts, new products, new tariffs, and changing accounts. If the nature of this work was switched to supporting customers through decarbonisation, we could harness the skills of these workers and the systems already in place. The staff would be in the unique position of having each householder's energy usage data so could build up a picture of the steps required to decarbonise and deliver the remedies in a smooth and consistent way.

Customers would be more willing to engage knowing this was not some commercial drive but a public interest matter in which they could save the planet and cut their costs. It would require investment from the government to deliver but that money would flow direct to consumers in the form of lower energy bills. It would also target the poorest consumers first and allow the deployment of resources to eradicate fuel poverty.

Natural Gas conversion

From the mid-1960s the UK converted from town gas to natural gas (methane) to take advantage of discoveries off the coast of England and Scotland. The conversion programme was a huge logistical operation that involved changing the gas appliances of millions of UK homes in a systematic and well-planned operation. It was conducted by a public corporation, which achieved its objective door to door, street by street and community by community. It involved a huge public relations exercise and massive levels of consumer engagement. The decarbonisation of energy has operational parallels with this natural gas conversion programme.

Although decarbonisation would be on a much bigger scale, it helps us see how the UK has tackled large infrastructure programmes in the past. Only a public body would have had the confidence of the public and ensure such a conversion programme was accepted by consumers. It also standardised delivery so it was cost effective and logistically possible.

The natural gas conversion programme also supported a substantial rise in the employment of skilled gas workers. So, if for example, a programme was supported in the future to convert UK homes to use hydrogen gas, we know a proven model for such an exercise already exists.

Is it affordable?

In the current environment the retail supply sector has gone from being a cash cow within larger utility companies to a situation where it is barely profitable and its values are being written down. This presents a future government with a great opportunity to acquire essential assets at a low cost.

Retail supply companies only

Bringing the big six supply companies into public ownership would mean buying their specific domestic retail gas and electricity supply subsidiaries, as listed in the table that follows. These companies are the ones specifically licensed by Ofgem to carry out energy supply.¹

- It would not involve buying the whole of a company like Centrica, just British Gas for example, nor any of the generating subsidiaries of these companies.

Cost of compensation

The table shows latest the book value of equity as shown in the latest accounts of each company, totalling about £6bn. Best estimates of market value, which companies would generally claim, is about £9.3bn. Both exclude Npower because its book values are negative and its market value is uncertain.

- Market value estimates for the subsidiaries of Centrica and SSE are based on actual market capitalisation of the parent companies in January 2019 pro rata to the UK retail sector's contribution to profits of the parent – approximately 50% for Centrica, and 25% for SSE. Values for EDF, E.ON and Scottish Power are based on other recent estimates.
- In January 2019 the effects of the price cap and competition continue to erode the market value of the companies, with SSE abandoning the Npower merger and seeking instead to sell or spin off the retail division², and Centrica share price falling 8%.³ Whatever happens next it is unlikely to increase the market value of these companies. Importantly the potential impact of International dispute claims for higher compensation is small.
- All companies are owned by listed UK or European groups in France, Germany and Spain, none of which have BITs (bilateral investment treaties) with the UK. So there is no chance of Investor State Dispute Settlement (ISDS) claims by the listed groups under BITs, except for the small number of shareholders in these companies who are based in countries with BITs. Similarly there are no free trade agreements with these countries, unless and until the UK signs a trade agreement with the EU.
- The non-UK companies (EDF, E.ON, Iberdrola, Innogy) or shareholders could in theory use ISDS provisions in the Energy Charter Treaty (ECT), which has been ratified by France, Germany, Spain and UK. This is a more real possibility once the UK has left the EU.

¹ OFGEM Dec 2018 <https://www.ofgem.gov.uk/licences-industry-codes-and-standards/licences>

² FT 17 Dec 2018 <https://www.ft.com/content/6ba7eb9e-01d0-11e9-9d01-cd4d49afb3e3>

³ FT 22 Nov 2018 <https://www.ft.com/content/75d7dbb2-ee2d-11e8-8180-9cf212677a57>

- Even if they all did bring cases and all succeeded in winning full market value, it would only increase the compensation cost by about £1.5bn.

So an estimate of £6bn in compensation costs seems robust. This would be additional to the cost of compensation for the electricity and gas distribution and transmission networks, which has been estimated at £24bn.

Name	Owners Dec 2018	Employees latest 2017/18	Book value equity £m latest 2017/18	Market value £m
British Gas Trading Ltd	Centrica	12,924	4,440	3,900 *
EDF Energy Customers Limited	EDF (83.7% FR)	4,947	19	170
E.ON Energy Solutions Limited	E.ON	7,673	1,036	1,590
Scottish Power Energy Retail Limited	Iberdrola	1,522	103	750
SSE Energy Supply Limited,	SSE	1,546	401	2,900 **
Npower Limited	Innogy/RWE	1,839	246	
Npower Direct Limited	Innogy/RWE	801	52	
Npower Northern Limited	Innogy/RWE	2,986	-1124	
Npower Yorkshire Limited	Innogy/RWE	274	-702	
Total		34,512	5,998 ***	9,310 ***
* FT January 2019 market capitalisation x 0.5				
** FT January 2019 market capitalisation x 0.25				
*** excluding all Npower				

The alternative to not taking the big six into public ownership is to have more regional entities competing alongside established and newer entrant suppliers. These would require capital investment to get started and these costs could be significant. This is aside from any upfront losses that could be incurred. They would also require skilled people and it makes no sense to duplicate alongside other suppliers or miss the benefits evident from economies of scale in creating single suppliers.

Employment

There are over 34,000 workers employed in the big six domestic supply companies. If an ambitious programme of delivery and renewal was to take place these numbers would increase, although digitalisation may impact this growth. Critically for UNISON:

- Public ownership of the big six would protect this huge workforce from potential loss of quality jobs and employment rights as a result of erosion by competition from private or public firms. All existing staff would be TUPE'd across to a new national or a regional energy supply/retail authority, with labour conditions protected.
- Many of these staff are based in large regional call-centres spread around the country. Public ownership would stabilise quality employment in many places e.g. Sunderland, Cardiff and amongst many female and part-time workers.
- Sectoral bargaining and pay and conditions can be most simply applied if publicly owned supply companies employ a majority of the workforce.
- New workers could be taken on through modern apprenticeships to deliver programmes such as energy efficiency or public education. The new public retail

supply companies would already have capabilities to employ staff at scale as was demonstrated during the smart metering programme.

Competition/employment law

- At present the big six private companies hold about 75% of all customers. How this develops and what form public ownership takes will need to be guided by European competition law until the point the UK is not bound by this.
- Small suppliers would be allowed to continue to operate, providing they are licensed retailers. Getting such a licence should become more onerous and workers would then be protected from undercutting by national sectoral bargaining.
- The public supply companies could be the default suppliers as is the case in Germany.
- Staff would need to TUPE transfer into the new retail supply company(s) to ensure employment protection. Additional pension measures will be required.
- It would be advisable in the first instance to maintain legal separation between the retail/supply and distribution/transmission.

Conclusion

In seeking to implement the key energy policy of net zero, only public ownership will achieve the necessary outcome within a reasonable timeframe and cost. This is even more certain when considering the challenges of achieving net zero as outlined by the Committee on Climate Change. The present privatised system has little to commend it. It is fragmented, full of duplication and lacking in standard application. In addition, the lack of medium to long-term planning to meet the very obvious future energy challenges is a clear testament to this.

UNISON is not suggesting we shouldn't go ahead and renationalise the transmission and distribution networks. It is making the case for nationalising the retail supply operations of the big six and doing this as a priority.

It is clear that public ownership of this sector could drive fairly rapid and noticeable improvements to householders and set in place the right conditions to transform the whole system. Not least, because in an instant there would be thousands of workers and the systems required to support them in delivering decarbonisation and other priorities. This instant green army would be deployable and ready to go.

Ultimately controlling the relationship with the energy customer and the purchasing and retailing of energy gives two massive levers with which to drive the energy efficiency agenda, get to net zero, and ensure an affordable and clean energy supply. Not least because we would overnight be able to deploy workers to get the process started. Politicians keep saying they want to reduce emissions but little is currently happening to get this process started. Taking the retail arms of the big six into public ownership would be the answer.

At between £6-9 billion (depending on the method of valuation) it represents excellent value considering the knock-on positive impacts. It would also secure good unionised employment in more economically challenged regions and deliver a workforce, systems and capacity for the immense challenges ahead.

The case is compelling and is supported by the present turbulent position of the energy market and the state of the retail supply operations of the big six.

If we fail to act we will ultimately fail to achieve. And too much is at stake for that to happen.

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