

Focus article

What is the role of the regulator and utility in ensuring a just transition?

Meera Kotak and Simon Ede*

Charles River Associates

Introduction

To understand the impact of the energy transition on the fuel poor, it is crucial to first understand its impact on the energy system at large.

Energy transition refers to the global energy sector's shift from fossil-based systems of energy production and consumption to renewable energy sources (S&P Global, 2020). The energy system must, therefore, undergo a fundamental change to accommodate the increasing amounts of flexibility in the system and changing consumer behaviour. Flexibility for innovators will, in turn, need to be balanced with stability for investors; retailers will also require clear price signals to launch innovative business models.

Fuel poverty remains a complex and persistent problem, exacerbated by the COVID-19 pandemic and likely to be further affected by escalating decarbonisation efforts.

In February 2021, Government released an updated fuel poverty strategy for England (Sky News, 2021). In line with energy transition and climate change requirements, the strategy focuses heavily on policies to update the energy efficiency of housing, with £2.5 billion earmarked for the Home Upgrade Grant (it is crucial to note that long-term funding for the Grant has not yet been approved (Committee on Fuel Poverty, 2021). It sets out a plan for additional investments of over £10 billion into energy efficiency improvement regulations for the Private Rented Sector, and a further £60 million to be invested in retrofitting social housing. England also updated its fuel poverty metrics from 'Low Income, High Cost' (LIHC) to 'Low Income, Low Energy Efficiency' (LILEE) to prioritise home insulation (HM Government, 2021). This efficiency focus is also mirrored in Government's 10 Point Plan for a Green Industrial Revolution (Gov.uk, 2020).

Though these policies have potential for driving the green energy transition, and creating a multitude of new jobs, they will also have high associated costs. There is currently no clear impact assessment on the effect of these costs on consumers and the fuel poor. Thus, there is both a risk that vulnerable customers will be negatively impacted by these changes, and an opportunity for them to be the first to benefit.

p. 108. What is the role of the regulator and utility in ensuring a just transition?

This article will discuss how the energy transition will impact the fuel poor, who should pay for the energy transition and how we can protect the most vulnerable customers.

We will examine this from both a regulator's (Ofgem) and utilities' perspective, as we view these players as having the highest responsibility to the fuel poor. However, we are also mindful that whilst utilities can make considerable contributions to the just transition through their own efforts, they should not be setting the precedent given inherent commercial considerations – in the same vein that Ofgem is the implementor, not the policy maker. Their scope for action is, and should continue to be, significantly influenced by government direction on incentives, regulations and deployment of public funding.

Impact of the energy transition on the fuel poor

Policy, regulatory and market frameworks must uphold the right of all citizens to access affordable, clean energy

Current consumer protection frameworks will need to be adjusted to ensure they capture existing and emerging risks.

As posited by the *Energy White Paper*, the energy transition will require the proportion of household bills that pay for network investment and policy costs to rise. Parallely, there must also be an increase in regulatory changes, ranging from regulating third parties such as energy brokers and price comparison websites, to reforming how consumers receive transparent information about energy products and benefits. On a fundamental level, whilst energy and prepayment price caps are currently in place to ensure people pay a fair price, these temporary protection measures need to be formalised into enduring mechanisms. Similarly, whilst the Energy Company Obligation (ECO) scheme is a success for vulnerable customers, Government must establish more incentives to encourage customers capable of contributing, given the role of retailers is not always clear in facilitating investments. Ofgem recognises this, and that reforms and identification of alternative operational arrangements are necessary (Ofgem, 2018).

These acknowledgements raise further questions on the current regulatory arrangements and utility hub model – where the utility is positioned as the primary intermediary between consumers and the energy system. This structure in its current form may not be fit for purpose for energy consumers over the longer term. As recognised by Ofgem, it may hamper customers' ability to benefit fully from new levels of innovation, digitalisation and competition sparked by the energy transition **Error! Bookmark not defined.** The future utility, and key players in the energy retail ecosystem, will have different roles than today's legacy utilities given that energy system roles and business models are likely to see great change by the 2030s because of the growing importance of new trading and platform technologies and the further integration of heat, electricity and transport sectors (Brinker, 2018). Ofgem may also need to consider the provision of services by regulated monopolies versus competing entities, whether competition is in the consumers' best interest and where other governance forms may enable delivery of policy goals (Brinker, 2018).

Ofgem should gather insights into how other countries have set up their default arrangement options to appreciate the breadth of options available, risks and opportunities for how the UK system can operate and its corresponding innovation and consumer protection initiatives. For example, lessons can be learnt from the US market where the model for default energy service is that utilities are not allowed to earn a profit

p. 109. What is the role of the regulator and utility in ensuring a just transition?

from this activity. Instead, they provide a regulated service based on a cost-pass-through basis, earning margins on other activities such as network operation and energy efficiency investment (Brinker, 2018). Ofgem should consider, if certain core functions that supply energy could be integrated into distribution system operators or other regulated monopoly entities, allowing innovators to be relieved from the universal supply obligation (Brinker, 2018).

Standardised policies and an interconnected energy system add to the complexity of balancing incentives and penalties for those who cannot engage.

Given the UK's interconnected structure, regulatory decisions must consider the whole energy system to maximise benefits. For example, as electric vehicles are rolled out, there must be simultaneous support, or incentivisation through tariff structures, to enable charging to be shifted away from peak demand periods and towards periods of high renewable output. The role of automation in enabling charging during optimal times is also crucial.

This macro view is particularly important when considering the fuel poor, as the journey to net zero will require lifestyle changes. The increasing role of individual contributions is also paramount; those who can engage need to be incentivised, and those who cannot engage need not be penalised. The latter is crucial, given those that cannot engage are also unable to reap the many benefits the energy transition will provide.

Considering that policies remain standardised rather than targeted, despite varying proportions of fuel poor households within regions and that the current rules and regulations are geared towards a different era, government-backed mandates are also needed. This is particularly prevalent given the change of the fuel-poverty indicator's alteration to LILEE will increase the numbers in fuel poverty to 1,00,0000 above Band C, whilst also removing c.300,000 households in Band A, B or C from fuel poverty. As such, efforts will be needed to ensure low-income and vulnerable households, who live in efficient homes, continue to receive support (Community Energy England, 2021).

Understanding the cost of the transition to determine the most equitable way to fund the net-zero journey without overloading vulnerable bill payers is a critical element to determine an enduring and just fuel poverty strategy.

Given the journey to net-zero emissions is a social transition as much as it is a technological one, a forward-looking view of the 'vulnerable consumer of 2030' is needed. Currently, companies hold data on customers internally to identify who may need a tailored approach, primarily offering a priority service in relation to access, safety and communication needs. Government is typically relying heavily on receipt of benefits as a proxy to identify fuel poor households (Committee on Fuel Poverty, 2021). As a result, only £0.4 billion per year of the current total budget of over £2.55 billion per year is received by fuel poor households – Government is not applying its own fuel poverty guiding principle to target available funds on assisting those in the deepest levels of fuel poverty (Committee on Fuel Poverty, 2021). Therefore, just as the energy system is changing, so too will the vulnerability scope; Government needs to acknowledge that a different mechanism to identify vulnerable customers, and therefore to assess the gaps contributing to energy poverty, may be needed.

An example of the market responding to this acknowledgment comes from UK Power Networks (UKPN) working with the Energy Systems Catapult to use data software to identify fuel poor households, combining existing fuel poverty insight with smart-meter data to better understand the diversity of situations that can make a household fuel poor.

An assessment of the full breadth of impacts for the fuel poor due to the energy transition is also required to ensure that the allocation of energy infrastructure costs and

p. 110. What is the role of the regulator and utility in ensuring a just transition?

network fees, levies, carbon taxes and pricing mechanisms are fairly distributed for all, and that any plans to implement or extend carbon pricing mechanisms address inequities. The sanctity of this economic balance is crucial in redefining cost-benefit assessments to include a broader range of benefits, such as reduced healthcare costs.

A sample of these consumer archetypes and impact assessment parameters include spatial vulnerabilities, cost-benefit assessments, customer demographics and feasibility and timeliness. These data points are needed to determine the answer to the bigger question – how much of the transition cost should be borne by the taxpayer versus the bill payer? Currently, many are talking about a just transition, but there is no clarity as to what the cost will be, how it will be met and how such changes will impact the vulnerable, rendering any efforts to work out the distributional effects futile. It is essential that any policies related to the transition to a low-carbon economy should have an impact assessment – acknowledging that the distributional impacts are political. This will continue to be a live issue for politicians until a government proposal or strategy for the balance between bills and taxes is determined.

The Committee on Fuel Poverty recommends, in the long-term, that policy costs, such as retrofit programmes, property upgrades and decarbonisation solutions, are not passed on to consumers via the bill, but instead are recovered in income taxation (Committee on Fuel Poverty, 2020). A specific portion of the funds from the Green Dividend Framework could also be redistributed to low-income and vulnerable customers, offsetting the cost of any additional burden on the bottom income decile by recycling carbon tax revenue on an annual basis (Bright Blue, 2021). An alternative solution could be to increase the margins on those who can pay, to subsidise the fuel poor, turning electricity into a means-tested commodity.

Targeted partnerships between policymakers, financiers and civil society need to be created in key regions to ensure capital is deployed in response to local priorities.

Given the clear link between housing and vulnerability, as posited by the *Energy White Paper*, policy and action need to connect post-COVID-19 recovery with climate action, social inclusion and green-housing outcomes on a macro level. A ‘Financing the Just Transition’ alliance, as suggested by the Grantham Institute, could support this system-wide approach by aligning financial innovation, climate action and positive social impact (Grantham Research Institute on Climate Change and the Environment, 2020). Similarly, an economy-wide ‘carbon regulator,’ as posed by the Energy Systems Catapult, could be another partnership enabler. In the same vein as the Financial Reporting Council, the independent regulator responsible for promoting transparency and business integrity by monitoring and enforcing audit quality, wide-spread change and dedicated oversight is required to oversee the removal of greenhouse gas emissions across the economy and ensure that there is a robust basis for policy design (Catapult Energy Systems, n.d.).

Utilities are in a unique position to create innovative support mechanisms for vulnerable customers as a core part of their sustainability efforts

Under regulatory requirements, utilities hold certain obligations to protect vulnerable customers.

Currently, all major utilities provide ECO and the Warm Home Discount. Many large utilities have funds in addition to this which can further help the fuel poor, with some utilities partnering with supporting organisations, such as Citizens Advice, to enable easier access to these resources and services.

Nevertheless, most utilities’ support is currently limited by the requirements to engage in non-market objectives and avoid fines, rather than as an opportunity to

p. 111. What is the role of the regulator and utility in ensuring a just transition?

provide a genuine value-add. Creating offerings centred on sustainability and vulnerability (such as in the case of new entrant Rebel Energy, which aims to provide clean energy to households in the UK at an affordable price, whilst addressing inequality and combating the climate crisis) could allow utilities to reinvent the way they are set up, integrating social responsibility and providing a public good without losing company value.

Utilities may find themselves struggling to connect with disengaged consumers who are worried about the energy transition and may fall through the cracks.

Consumers are already disengaged, the fuel poor most of all. A Citizens Advice representative advised that the average reading age in the UK is nine years old, disrupting current assumptions, marketing approaches and methods for sales and retention processes. This is in addition to 21 per cent of adults having poor digital skills and up to 25 per cent experiencing mental health concerns annually (Heat Trust, 2020).

Utilities should be conscious of three key risks that decarbonisation efforts could bring to vulnerable consumers:

- Increased digitisation and shift towards new technologies may make the fuel poor even harder to reach, as vulnerable consumers typically need tailored communication.
- Lack of best practice and poorly updated Priority Services Register's methodologies could mean several consumers fall through the cracks, potentially self-disconnecting or being unable to access support.
- Inadequate pricing mechanisms may impact vulnerable customers, or tip those who are 'near' poverty over the line.

Whilst tackling issues such as digital disengagement is a policy question for Government, utilities are in a unique position to understand and ease customer concerns on the energy transition given their direct consumer links, providing a bridge between the customer, government and industry. Mapping out a better customer journey for the vulnerable can allow utilities to ensure excellent communication, and for visualisation to extend into the discourse, given the importance of behavioural science and powerful imagery, regardless of the regulatory push and expectation.

However, it remains unclear what their individual plans for their role in decarbonisation efforts will be. To date, only one utility, SSE, has published its just transition strategy, formally setting out how the social implications of divesting from fossil fuels would be managed (Business Green, 2020). This includes factoring in whole system costs and benefits for investments to ensure there is a more equitable allocation of costs among consumers, as well as pushing forward smart technologies which can further protect vulnerable customers. Nevertheless, they have not defined a targeted strategy for the fuel poor, which makes it difficult to assess if and how specifically the vulnerable will be protected as a unique customer segment. All utilities need to realise the just transition is more than a political statement and that it is relevant to them.

Linking vulnerability concepts to ESG strategies and concepts could be one approach to utilities enabling a just transition.

The customer segments who technically qualify as vulnerable, and who are listed on the Priority Services Register, may change during the energy transition. As such, the utility's approach to how and to whom they provide support may change as well. The utility's ability to prepare these plans, however, hinges on their understanding of the costs and bill-paying responsibility as identified by the regulator, to enable them to assess how much funding they can channel into supporting those in need. A Citizens Advice representative recommended that utilities who can deliver inclusive services

p. 112. What is the role of the regulator and utility in ensuring a just transition?

without government mandates, but as a corporate strategy – services that can flex to the present needs – will be best placed to navigate the energy transition.

Utilities can utilise the ESG framework, notably the ‘S’ construct, to meet long-term decarbonisation goals whilst also ensuring a just transition for its customers. To date, much of the investment into ESG for utilities has primarily focused on renewables and green financing. However, as the importance and perception of sustainable product and people strategies is increasing, strength in ESG and value propositions deemed important by the public can drive customer preference and reduce regulatory and legal intervention, in turn enabling greater strategic freedom.

This requires a robust proposition, achieved through diagnosing the utility’s current as-is state, identifying and quantifying where value can be added, developing a strategy that can be certified by a third party and implementing it with measurable tracking metrics. On a granular level, we recommend utilities to:

- Identify customer segments at risk.
- Quantify implications of transition for these segments.
- Develop initiatives to mitigate challenges.
- Evaluate impact on a whole system basis of investments.
- Assess cost/benefits to broader consumers and/or
- Evaluate impact on business and position vs. alternative providers.

Cascading a company vision – *building a better working world* – down to operational-level actions – *set up social tariff to support those in financial hardship* – can enable corporates to identify specific initiatives, actions, metrics and KPIs. It is imperative that the broad strategic priority of reducing the impact of climate change on the poor is broken down into actionable targets, such as ensuring vulnerable customers have access to affordable energy by monitoring the percentage of LILLE customers in arrears per month.

Another method for enabling a just transition could be to introduce a social tariff, as seen with BT’s Home Essentials (BT, 2021). The initiative allows those on low incomes to be connected to affordable fibre broadband and calls, saving customers up to £240 per year compared to equivalent packages. This has potential to enable the eligible 4.6 million customers to benefit from digitisation, recover from financial losses faced during the pandemic and improve their employment prospects.

A similar social tariff may also be fruitful in housing, given government has so far struggled to find a method to encourage owner-occupied homes, which accounted for 65 per cent of England households in 2020 (Statista, 2020), to invest in energy efficiency initiatives. The proposed Band C Minimum Energy Efficiency Rating for Privately Rented Sector homes has also not yet been approved, despite it estimating to raise the energy efficiency levels (Committee on Fuel Poverty, 2021). Reforms to the rental and social housing sectors can have huge benefits for the fuel poor as approximately 35 per cent live in rented housing, and 15 per cent live in social accommodation (Department for Business, Energy and Industrial Strategy, 2020). Utilities, therefore, have an opportunity to take on a role in encouraging such energy efficiency initiatives. A Citizens Advice representative shared that there aren’t sufficient incentive mechanisms in place for energy efficiency measures due to a lack of current government programmes. The stop-start nature of previous programmes suggests that there is a significant gap around independent advice, leaving many confused about the options available to them.

p. 113. What is the role of the regulator and utility in ensuring a just transition?

As decarbonisation efforts ramp up, the role of utilities within the energy landscape is likely to change to meet changing consumer behaviours.

The energy transition will offer utilities opportunities to develop new ecosystems and offerings, become more embedded in the community and build diverse partnerships. The future utility will need to move past legacy structures to remain relevant, potentially with a different customer book and relationship with their consumers. For some, this may mean leaning on digital innovation to reduce the touchpoints with technologically savvy consumers, whereas others may reconsider their service offerings and communication style altogether. These changes may have trickle-down impacts on the fuel poor who may no longer be well accounted for in an updated business model.

Conclusion

The energy transition gives us the opportunity to rethink and reshape how people pay for energy and access. The advent of ESG as a boardroom priority provides a route to formalise how the vulnerable are supported and may even create the healthy competition required to provide the best service offerings. The transition will not be one mass move, but several transitory steps echoing in, from the advent of electric vehicles to increasingly connected homes, and the natural yet impending decline of fossil fuels. In each move, therefore, there is a need to humanise and ensure inclusivity. Whilst the question of who to pay is a moral judgement, fuel poverty is currently problematised as a technical issue of energy efficiency, and therefore one which the energy industry must tackle. Utilities and Ofgem should embrace their role in defining the structural equality boundaries of tomorrow, and develop the political legitimacy required to make lasting change.

Note from the authors

The conclusions set forth herein are based on independent research and publicly available material. The views expressed herein are the views and opinions of the authors and do not reflect or represent the views of Charles River Associates or any of the organizations with which the authors are affiliated. Any opinion expressed herein shall not amount to any form of guarantee that the author or Charles River Associates has determined or predicted future events or circumstances, and no such reliance may be inferred or implied. The authors and Charles River Associates accept no duty of care or liability of any kind whatsoever to any party, and no responsibility for damages, if any, suffered by any party as a result of decisions made, or not made, or actions taken, or not taken, based on this paper. Detailed information about Charles River Associates, a trademark of CRA International, Inc., is available at www.crai.com

*Correspondence address: [Meera Kotak](mailto:Meera.Kotak@crai.com); mkotak@crai.com; [Simon Ede](mailto:Simon.Ede@crai.com); sede@crai.com

p. 114. What is the role of the regulator and utility in ensuring a just transition?

References

- Bright Blue (2021) *Bright Blue: New carbon taxation and dividend needed to reach net zero by 2050*. Available at <http://www.brightblue.org.uk/new-carbon-taxation-and-dividend-needed-to-reach-net-zero-by-2050/> [Accessed: 25/10/2021]
- Brinker, L. (2018) *Ofgem Call for Evidence on the future of supply market arrangements*, UK Energy Research Centre response. UKERC. Available at https://d2e1qxpsswcpgz.cloudfront.net/uploads/2020/04/ukerc_response_ofgem_future_of_supply_market_arrangements.pdf [Accessed: 25/10/2021]
- BT (2021) *BT to launch new at-cost social tariff in June – offering support to over four million households on low income*. Available at: <https://newsroom.bt.com/bt-to-launch-new-at-cost-social-tariff-in-june-offering-support-to-over-four-million-households-on-low-income/> [Accessed: 25/10/2021]
- Business Green (2020) *How to avoid the risk of 'stranded people': SSE sets industry precedent with 'Just Transition' plan*. Available at: <https://www.businessgreen.com/news-analysis/4023609/avoid-risk-stranded-people-sse-sets-industry-precedent-transition-plan> [Accessed: 25/10/2021]
- Catapult Energy Systems (n.d.) *The Case for a 'Carbon Regulator'*. Available at: <https://es.catapult.org.uk/news/the-case-for-a-carbon-regulator/> [Accessed: 25/10/2021]
- Committee on Fuel Poverty (2021) *Annual Report*. Committee on Fuel Poverty. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1024398/Annual_Report_CFP_2021.pdf [Accessed: 25/10/2021]
- Committee on Fuel Poverty (2020) *Fourth Annual Report*, Committee on Fuel Poverty. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/894502/CFP_Annual_Report_June_2020.pdf [Accessed: 25/10/2021]
- Community Energy England (2021) *National Energy Action (NEA) briefing on the updated Fuel Poverty Strategy for England*. Available at: <https://communityenergyengland.org/news/national-energy-action-nea-briefing-on-the-updated-fuel-poverty-strategy-for-england> [Accessed: 25/10/2021]
- Department for Business, Energy and Industrial Strategy (2020) *Annual Fuel Poverty Statistics in England, 2020 (2018 data)*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/882404/annual-fuel-poverty-statistics-report-2020-2018-data.pdf [Accessed: 25/10/2021]
- Gov.uk (2020) *The ten point plan for a green industrial revolution*. Available at <https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution> [Accessed: 25/10/2021]
- Grantham Research Institute on Climate Change and the Environment (2020) *Financing a just transition to net-zero emissions in the UK housing sector*. The London School of Economics and Political Science. Available at: <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2020/07/Financing-a-just-transition-to-net-zero-emissions-in-the-UK-housing-sector.pdf> [Accessed: 25/10/2021]
- Heat Trust (2020) *Decarbonisation of heat must work for customers in vulnerable situations too*. Available at: <https://heattrust.org/news-events/123-decarbonisation-of-heat-must-work-for-customers-in-vulnerable-situations-too> [Accessed: 25/10/2021]
- HM Government (2021) *Government Response to Consultation on Updating the Fuel Poverty Strategy for England*. HM Government. Available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/a>

p. 115. What is the role of the regulator and utility in ensuring a just transition?

[ttachment_data/file/960083/fuel-poverty-strategy-for-england-government-response.pdf](#) [Accessed: 25/10/2021]

Ofgem (2018) *Future supply market arrangements – response to our call for evidence*.
Ofgem. Available at
[https://www.ofgem.gov.uk/sites/default/files/docs/2018/07/future_supply_market_arrangements - response to our call for evidence 0.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2018/07/future_supply_market_arrangements_-_response_to_our_call_for_evidence_0.pdf)
[Accessed: 25/10/2021]

S&P Global (2020) *What is Energy Transition?* Available at:
<https://www.spglobal.com/en/research-insights/articles/what-is-energy-transition> [Accessed: 25/10/2021]

Sky News (2021) *Millions to see energy bills rise by at least £139 as Ofgem hikes price cap*. Available at: <https://www.gov.uk/government/publications/sustainable-warmth-protecting-vulnerable-households-in-england> [Accessed: 25/10/2021]

Statista (2020) *Share of owner-occupied households in England from 2000-2020*. Available at: <https://www.statista.com/statistics/286503/england-proportion-of-owner-occupied-households/> [Accessed: 25/10/2021]