

## Startup Coalition Consultation Response

### Innovation in the Energy Retail Market

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#### Background

Startup Coalition is the policy voice of tech startups and scaleups in the UK. Since 2010, Startup Coalition has worked to engage on behalf of tech startups in public policy debates in the UK across a range of priority issues for startups including access to finance, immigration and skills, and technology regulation. The climate crisis demands innovation and transformation across our economy, and Startup Coalition has a dedicated stream of work to support founders creating solutions to combat climate change. This includes innovators supporting the growth of innovation within the energy retail market.

#### General remarks

Startup Coalition supports the objective of increasing innovation in the energy retail market, and applauds the efforts of Ofgem over the last few years in proactively pushing the innovation agenda. The Innovation Hub is one of the best examples today of a UK regulator actively facilitating innovative practice. As always, there is room to improve these facilities, but we believe there are firm foundations on which to expand and deepen the usage of the innovation sandboxes.

Further, this response is deliberately broad - Startup Coalition represents a broad swathe of startups and scaleups across the economy, and interacts with hundreds of firms specifically within the energy sector often competing with one another, as well as incumbents. To this end, we advocate for regulation and policy to facilitate and maximise innovation and competition alongside defined outcomes, rather than prescribing specific products, services or practices. As a consequence, we do not dwell on the specific barriers facing individual firms in this response, but instead the barriers that we have uncovered across the sector.

One of the main ways in which we add value to policymakers is by convening roundtable discussions of startup founders to interact directly with policymakers. To this end, if Ofgem would like to explore any of the themes set out below in more detail, or would like to interact with startup founders first-hand, we would be happy to facilitate this.

#### Answers to consultation questions

##### **Q1: What innovation is currently happening in the domestic and non-domestic retail markets? What is the scale of this innovation?**

There is significant innovation happening in the domestic and non-domestic retail markets, being spearheaded by UK startups and scaleups. In March 2024, Startup Coalition launched its first ClimateTech Index, analysing the performance of the UK's 1,000 most valuable ClimateTech startups.<sup>1</sup> Within this cohort, the most valuable individual sector represented was the energy sector, with 338 firms included. All of the firms in this dataset were headquartered in the UK.

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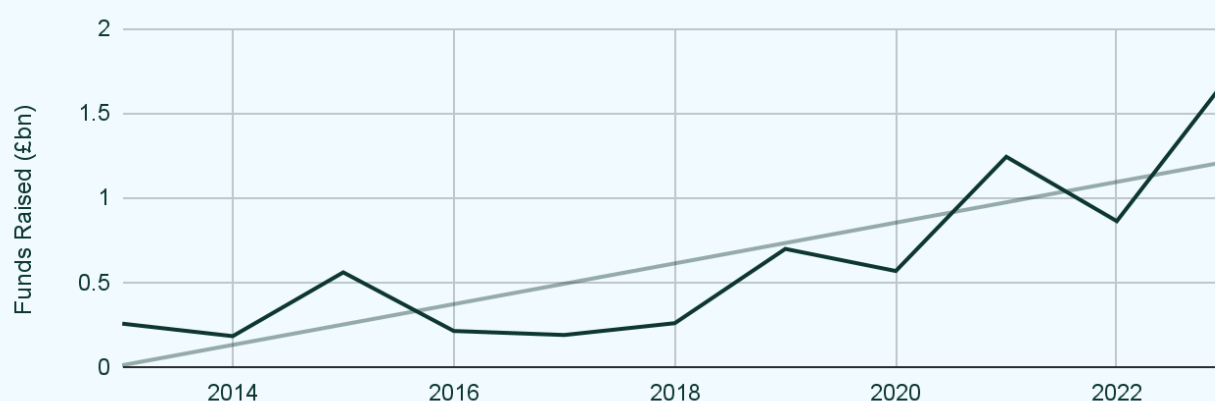
<sup>1</sup> [https://startupcoalition.io/u/2024/03/ClimateTech-Index-2024\\_Embargoed-Release-2.pdf](https://startupcoalition.io/u/2024/03/ClimateTech-Index-2024_Embargoed-Release-2.pdf)

**These firms have raised a combined £7.4bn in VC investment, and were worth £13.7bn at the end of 2023. They had secured a combined £405m in grant funding, and at the end of 2023 there were over 8,900 people employed across these 338 firms.**

The energy sector was the most populous, highest funded, most valuable, and employed the most people of any sector in the Index. On average, a firm in the energy sector had a median value that is 12% higher than the Index average, and had received 25% more in grant funding than the average firm in the Index. The sector also employed 28% more people on average than the average firm in the Index. There were low rates of female founders in the energy sector, with only 11% of firms having a mixed gender founding team, and only 2% of firms were founded by a solely female team. 46% of firms in the sector are developing hardware, and 72% are engaged in some form of hardware or manufacturing (including energy generation and fuel production). 62% of all debt financing secured by ClimateTech firms in the Index sample went into startups in the energy sector.

As well as being consistently the best funded sector within the Index, the overarching trend of increasing fund raised has continued since 2016. While annual funds raised by firms in the sector increased by an average of 48% annually over the last ten years, funding has increased significantly between 2016 and 2023, peaking at over £1.7bn in the most recent year in the sample.

Energy Annual Raise - 10 Year Trend



## **Q2: What innovation should happen to meet consumers' needs and meet net zero?**

It is not the job of Ofgem to determine the private sector innovation that should happen to meet consumer needs and meet net zero. Instead, at Startup Coalition, we support efforts to build a regulatory environment that is outcomes-oriented, with clear requirements of firms, and that facilitates as many technologies as possible as having a chance to compete and win business. This does not mean unbridled competition, but competition within the outcomes defined by Ofgem, including net zero.

With the above in mind, and based on our interactions with startups in the energy sector, Startup Coalition believes its essential we encourage innovation in the regulatory framework and policy environment to maximise the opportunity for service and energy generation innovation. Some key regulatory innovations that we would like to see include:

- **The expanded use of the Ofgem Energy Regulation Sandbox:** to date, we have heard far too few instances of startups having been able to leverage the Energy Regulation Sandbox. We would like to see Ofgem scale up the number of firms it interacts with through this mechanism, and more actively seek out participants.
- **The introduction of the Ofgem Future Regulation Sandbox:** we do not believe that there has been any progress in introducing the Future Regulation Sandbox since the publication of the Summary of Responses to proposal to introduce the Future Regulation Sandbox in April 2024. We would like to see this expedited.
- **The completion of the Review of electricity market arrangements (REMA) second consultation:** this regulatory consultation was caught up in the uncertainty of the election, with the new Government yet to make its intentions clear on next steps. This must be expedited, as we have heard from multiple stakeholders in our ecosystem that its continued delay creates uncertainty for businesses and investors, and is ultimately holding up the net zero transition.

**Q3: What will be the impact on consumers of new, innovative products and services? How can we maximise the benefits and minimise the risks?**

Based on feedback from energy startup founders and the success of previous innovations, we expect the positive impacts on consumers of new, innovative products and services to include:

- Increased choice
- Lower bills
- Increased consumer education and agency
- Increased convenience

In reality, the extent to which these impacts are delivered will depend on the success of the government and Ofgem in maximising the innovation that can occur, as well as taking steps to equip and inform consumers to best make the most of these innovations. This is a complex challenge and requires strategic governance. To this end, we believe that the Mission for Clean Power, set up within DESNZ, is a novel form of governance that could provide much needed programme management to maximise the chance of delivering the benefits and minimising the risks. It should be noted that as of the date of writing this submission, however, details about the Mission for Clean Power's priorities and interaction with regulatory reform remain scant.

A crucial area that must be exploited to maximise the benefits and minimise the risks of innovation in the energy market is data. We will go into more detail later on in our response.

**Q4: Are there any additional enablers or barriers to innovation?**

**Public Datasets**

Data is a critical enabler of innovation, and, conversely, a lack of data or poor quality data can be core barriers to innovation. To solve this challenge, there are a number of initiatives underway that it is important Ofgem is aware of.

The UK has historically been viewed as a leader in making public sector data accessible. Startups have benefitted from the standardisation of metadata in public sector data, as well as the introduction of open licences to make data sets more easily accessible and reusable. Startup innovation has moved on in leaps and bounds since - and founders can now achieve more with public data sets than previously thought possible with AI - if they can access the right data.

However, startups still need consistent access to a variety of publicly-held data that is available, harmonised, and findable by default. Many of the country's startups and scaleups aim to rely on public data sets for a variety of uses, including testing the viability of their products and services, tackling real-world problems efficiently and effectively, and creating updates that work better for the consumer.

We advocate for better data access in Government and this could be made possible if there was a £50m pot created that all departments and regulators could bid into to clean up their data sets before release to ensure they remain continuously available, continuously harmonised and continuously findable. This is because existing data is oftentimes unusable. Many founders – including many AI founders – complain they can't successfully tap into government data because the data lacks the granularity – ie. the level of detail – necessary for today's data analytics, is not updated enough or does not get measured along regular time intervals, and is hard to find in the first place because it is only partially accessible to the public.

## **Smart Data**

A further way in which the Government can harness the innovative use of data as part of an industrial strategy is through the targeted and strategic application of Smart Data. Smart Data gives individuals and businesses the ability to share their real-time data and harness it for practical needs like optimising grocery purchases or anticipating energy bill spikes. Without Smart Data, customers' data is trapped with heritage service providers, limited to what they are willing to offer. But with Smart Data, consumers will be able to better choose if, when, and how they share their data and opt into services that prioritise convenience and unique personalisation.

Today, Smart Data “schemes” are rare, and the lack of them forces innovators to rely on third parties to bring their ideas to market. The best-known Smart Data Scheme — Open Banking — was introduced under the CMA's Retail Banking Competition Order in 2017 and through the Payment Services Regulations in 2019. Open Banking has delivered clear benefits for over 11 million UK consumers and countless innovators developing solutions. The Open Banking regulations have also supported the exponential growth of a £4bn startup sector creating use cases built on the regulation. Extending similar frameworks to other sectors could truly position the UK as a digital leader.

The government should fast-track the Data Use and Access Bill to pave the way for individuals, businesses, and the broader economy to reap the rewards of the UK's data-driven future. The Data Bill which was tabled in October 2024. This legislation will empower Secretaries of State across Government to drive data-enabled growth and innovation in their sectors.

To ensure that the potential of Smart Data is maximised, particularly for a “mission-driven” government it is, firstly, vital that Ministers across the Government are aware of the existence of the new powers. Secondly, it is critical that there is a strategy for deploying priority sectors to maximise economic growth and consumer value, with a simultaneous drive to maximise the potential of interoperability and interconnectedness of across schemes.

For instance, expanding Open Banking to other financial services datasets (known as Open Finance), could unlock the ability to accelerate the property purchasing journey, which could, in turn, support efforts to decarbonise homes through the innovative use of property-linked finance. Further, the decarbonisation potential of Smart Data is huge, starting with unlocking energy use data through a Smart Data scheme for Smart Meter data, which we anticipate DESNZ will be consulting on in early 2025. Any future Smart Data scheme in the energy sector must be created in concert with Ofgem.

Finally, we would also be interested in the opportunities presented by Smart Data to increase transparency in the energy sector. More specifically, standardised and accessible data sets on available and forecast grid capacity, as well as grid carbon intensity, would be extremely useful to innovators (and incumbents).

### **Access to Finance**

Finance is, and will always be, a barrier to entry for UK startups. For startups in the energy sector, this challenge is more pernicious: for energy generation firms, the upfront capital costs are significant, and for retail energy firms, the regulatory compliance costs are high. To support early stage innovation in the energy sector, it is therefore important for the government to support access to capital. We support government programs like the Net Zero Innovation Portfolio (NZIP), which has been essential for early energy startup funding. A number of energy startups we have spoken to often applaud the help they have received from NZIP and some claim that they would not be surviving today without that government support. NZIP funding is up for renewal under the Comprehensive Spending Review process, and it is imperative that it continues.

### **Q5: What is the most significant barrier to innovation? Why?**

There is no “most significant barrier to innovation” for the energy startup sector as a whole - but each energy startup will likely experience the same core barriers:

- Regulatory flexibility - the ability to trial novel products and services in a heavily regulated sector. Sandboxes are a potential remedy to this.
- Access to finance - innovating in a heavily regulated sector is expensive, and startups are cash-poor. This is particularly pernicious at the later stages of development: Startup Coalition has recently outlined the “valley of death” phenomenon, where scaling firms require significant capital to go from proof of concept to commercialisation, often using first-of-a-kind technology or manufacturing. Unfortunately, there is a dearth of capital available at this stage.
- Access to data - as outlined in our response to Question 4.

### **Q6: What innovation is not happening because of regulatory barriers?**

This is counterfactual and challenging to answer - the real questions should be how to create the underlying environment for innovation to take place, and how to ensure existing innovative solutions are not held back. On the latter, Startup Coalition has heard of innovation that is happening *slower* than it could be due to regulatory barriers and uncertainty. For instance, there are a number of startups providing and utilising virtual power plant (VPP) technologies but are not able to scale because of inconsistent data standards across providers. The introduction of open data standards in this space

would be useful, though Ofgem would need to be careful in the inadvertent consequences for international compatibility/competitiveness - any open standards would need to be designed against best in class international standards.

**Q7: Should we do further work to improve routes to market?**

Yes, Startup Coalition is in favour of regulators undertaking a constant “learning by doing” approach to improving routes to market.

**Q8: What is the most attractive route to market? Why?**

Importantly, startups and scaleups operate across the supply activities outlined in the consultation, and it is important that the principles of clear and consistent regulatory requirements are maintained for all supply activities. Startups thrive in ambiguity and innovation is their central objective, but they require certainty in the costs of doing business - any sign of uncertainty in the requirements of routes to market will disproportionately impact startups and scaleups as they have limited resources available to adapt.

With the above in mind, two specific supply activities are disproportionately popular among startups and scaleups: license-exempt supply and white label. These two routes to market are relatively lower cost and enable lower cost innovation, predominantly in the form of customer experience.

**Q9: If you think that we need to improve routes to market, which option do you think should be our top priority and why?**

As highlighted in the consultation document, license-exempt supply is the route to market that is of the more popular among startups and scaleups in the UK, particularly as some startups are operating limited supply capacity, are operating decentralised generation assets, or geographically limited arrangements. However, we also acknowledge the limitations to Ofgem’s ability to interact with license-exempt supply.

To this end, we suggest that Ofgem’s priority should be to utilise time-limited derogations to improve multiple routes to market, specifically through its sandboxes. Crucially, sandboxes must be leveraged as a means to inform Ofgem policy decisions, not just as a tool for suppliers - there must be an appetite to improve regulation through the experience of innovators.

**Q10: What are your views on the options presented for amending routes to market? What would be the risks and benefits of each option?**

We are most interested in the opportunities presented by expanding the use of derogations, particularly through the Energy Regulation and Future Regulation sandboxes. Other respondents will undoubtedly do a better job of highlighting the risk involved with derogations, and Startup Coalition supports efforts to mitigate risk to consumers leveraging innovative technologies. Instead, we want to raise the risk that use of sandboxes fails to exploit the opportunity to improve Ofgem practice and regulatory reform. Instead of viewing sandbox as just useful to the firms going through the mechanism, we would like to see Ofgem use the sandbox to explore opportunities to reform going forward. This “learn by doing” approach is more efficient than waves of speculative consultations.

**Q11: To facilitate innovation, which licence conditions would most benefit from being reformed?**

We do not have sufficient information from our ecosystem to respond to this question.

**Q12: Are there any other improvements to routes to market which should be considered as part of enabling significant innovation in the retail market?**

No more than we have stated in responses to previous questions.