

Solar Energy UK- Written evidence (ONZ0017)

About us

Since 1978, Solar Energy UK has worked to promote the benefits of solar energy and to make its adoption easy and profitable for domestic and commercial users. A not-for-profit association, we are funded entirely by our membership, which includes installers, manufacturers, distributors, large scale developers, investors, and law firms.

Our mission is to empower the UK solar transformation. We are catalysing our members to pave the way for 40GW of solar energy capacity by 2030. We represent solar heat, solar power and energy storage, with a proven track record of securing breakthroughs for all three.

Introduction

We welcome the opportunity to respond to this consultation. Solar Energy UK has long echoed organisations such as the National Infrastructure Commission and the Confederation of British Industry in calling for reforms to Ofgem's mandate to align with our legally binding net zero emissions target.

Executive Summary

- 1. Net Zero Remit:** In line with Ofgem's stated core priority of decarbonisation and delivering a net-zero economy, a clear net zero regulatory remit should be added to Ofgem's core regulatory functions. It is essential that net zero considerations be given equal weight to Ofgem's other core regulatory functions to ensure that they are delivering the decarbonisation of the UK economy as swiftly as possible.
- 2. Balancing Environmental and Consumer Protection:** There should be a focus on protecting consumers and the most vulnerable through the energy transition. However, this should not be at the expense of ensuring that all decision-making fully supports net zero decarbonisation and enables the deployment of renewable technologies at the scale necessary to achieve this. As it stands, environmental objectives take a back seat against because Ofgem has no significant environmental remit. With renewable energy sources currently, or on

track to be, the cheapest sources of energy, it should be possible for Ofgem to give these two objectives equal weight within its regulatory and enforcement mechanisms.

3. **Environmental Scheme Administration:** As the administrator of environmental and social schemes, we believe Ofgem should have a responsibility to facilitate the continued commercial operation of existing renewable assets in receipt of ROCs and FiTs through ensuring a fair, transparent, and prompt audit process. Ofgem's role in administering these schemes is central to decarbonisation, and the current audit process is creating significant challenges for scheme participant and could undermine future deployment. We have included several recommend improvements in our response.
4. **Investing in Network Infrastructure:** To meet the 2050 net zero target, there needs to be huge investment in the both the distribution and transmission networks, especially as we head towards a policy of major electrification of heating and transport. It is critical that the price controls and network charging frameworks allow for the right level of anticipatory investment in the network now, as underinvesting in the network in the short term could put the delivery of net zero targets at risk down the line. Anticipatory investments should be further encouraged in the RII0-ED2 methodology. The level of investment required cannot be delivered simply be shifting costs on to renewable energy generators.
5. **Market Improvements:** Further market improvements are needed to accelerate the transition to net zero. For example. the Contracts for Difference (CFD) mechanism can be improved to better cater for dispatchable generation via co-located storage assets. The CFD procurement targets must also be based on real world data and aligned with the delivery of the legally binding carbon budgets. Currently, capacity allocation and procurement decisions are governed more by what is politically expedient instead of what is demonstrably necessary to achieve net zero. CFD auctions are also not held frequently enough to deliver the level of generation capacity necessary and should be held at least annually.

Responses and Recommendations

1. **What role should Ofgem play in the transition to net zero? What changes, if any, should be made to its remit, responsibilities and resources?**

Solar Energy UK continues to recommend that, in line with Ofgem's stated core priority of decarbonisation and delivering a net-zero economy, a clear net zero regulatory remit is added to Ofgem's core regulatory functions. It is essential that net zero considerations be given equal weight to Ofgem's other core regulatory functions to ensure that they are delivering the decarbonisation of the UK economy as swiftly as possible.

The speed and scale of the changes required to deliver net zero by 2050 cannot be understated. This simply cannot be achieved by tinkering around the edges of existing policy and regulatory frameworks. Ofgem must be given the responsibility and authority to place decarbonisation at the heart of the regulation of the UK's electricity system.

Further, all Network Operators should be prioritising the transition to net zero, but this will not happen on its own without the necessary support. Ofgem should be tasked with providing the requisite budgetary support for network operators through the price control process and network charging frameworks and should play a central role in enforcing and reporting on net zero, including setting targets, revising when needed, and following through with them. Ofgem should also be required to demonstrate how the network charging and price control frameworks support the delivery of the legally binding carbon budgets and align with anticipated increases in electricity demand and support commensurate levels of low carbon generation.

2. How well does Ofgem balance environmental objectives against its responsibilities in relation to affordability for consumers?

We of course agree that there should be a focus on protecting consumers and the most vulnerable through the energy transition. However, this should not be at the expense of ensuring that all decision-making fully supports net zero decarbonisation and enables the deployment of renewable technologies at the scale necessary to achieve this.

With renewable energy sources currently, or on track to be, the cheapest sources of energy, it should be possible for Ofgem to give these two objectives equal weight within its regulatory and enforcement mechanisms.

As it stands, environmental objectives take a back seat against because Ofgem has no significant environmental remit. If nothing is done to course correct and further incentivise low carbon generation, the cost of connecting new assets will outstrip the viable cost for private developers and growth will stagnate. Ofgem must be equipped to plan years ahead and

have clear KPIs on net zero to monitor and enforce progress. There is concern amongst many in the renewable sector that the regulator is focused primarily on near-term costs and not long-term systemic cost impacts of failing to decarbonise as rapidly as necessary. The energy transition will not happen on shoestring budgets, and the IPCC has been warning for years that the level of investments currently committed put us on track to >3°C of warming.¹

Environmental Scheme Administration

As the administrator of environmental and social schemes, we believe Ofgem should have a responsibility to facilitate the continued commercial operation of existing renewable assets in receipt of ROCs and FiTs through ensuring a fair, transparent, and prompt audit process. Ofgem's role in administering these schemes is central to decarbonisation. The RO and FiT schemes have a successful track record and have resulted in delivering the vast majority of solar PV in the UK. They have played an integral role in the emergence of a subsidy-free PV market in the UK.

Solar Energy UK is keen to work together with Ofgem to ensure the audits process and supporting guidance for generators, including around routine maintenance, replacement, and repowering, are based on the best industry knowledge and practice. A reasonable and proportionate RO/FiT auditing process is essential to ensuring the legitimacy of these schemes going forward, and ensuring subsidy is being awarded in compliance with the legislation. We would like to emphasise our commitment to a fair and prompt audit process, but also our dismay that our members' experience with the current process is neither of these things.

Over the past decade our members have invested in new and existing solar sites in receipt of ROCs or FiTs, following proper due diligence and in good faith that Ofgem's accreditation and auditing process would be proportionate, transparent, and fair. The collective experience of Solar Energy UK members identifies a vague, inconsistent, and protracted auditing process which, in some circumstances, has resulted in the suspension of payments based on the absence of evidence, which is either unsuitable for the given site, or is in no way related to determining whether a site was 'commissioned' or 'capable of export' under the scheme guidance.

Our members have recently reported a significant increase in both the number of Ofgem audits and the time and cost incurred by companies in complying with audit requests. Not only are the higher costs of resulting

¹ https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf

from the administration of the audits programme borne by consumers, but the effect on the day-to-day operation of the companies delivering the most cost-effective form of renewable energy has been substantial.

Our members indicate that the cost to industry of Ofgem's auditing process has increased to result in, on average, external legal and technical costs of over £50,000 per site and the equivalent of two employees full-time working on multiple site audits over roughly an 18-month period. Our members have also reported an average of 89 weeks (22 months) from receipt of the audit letter to confirmation of completion.

The combination of costs, delays, lack of transparency and inconsistency has caused considerable uncertainty for the industry and could make it more difficult to secure finance and complete future transactions. The audits process as it stands has a profound impact on the confidence that shareholders and investors have in the renewables sector, damaging the trust developed with reputable asset owners over the last decade. Fair, proportionate, and consistent application of regulatory oversight of these schemes is central to ensuring the continued growth of the sector, which is essential to meeting the Government's net zero objectives.

We have welcomed the recent engagement from Ofgem's stakeholder and audits teams on the concerns Solar Energy UK members have raised and look forward to working together to ensure that going forwards we can improve efficiency, transparency, and certainty for both the industry and the Authority.

Decarbonisation of Heating

Ofgem must also provide more clarity and support as to how consumers will be supported through the transition to decarbonised heating. The current focus on heat pumps as the preferred technology solution could place significant cost burdens on households if not done in combination with on-site renewable energy generation and storage. Solar and storage have a major role to play in delivering domestic decarbonisation at lowest cost to the consumer, as we have demonstrated in our recent analysis.²

More clarity is needed as to how Ofgem will support the transition to zero-carbon heating. This transition must be clearly sequenced, and higher-risk groups prioritised. How is the capex of the transition funded, specifically, how will the replacement of gas boilers to air/ground source heat pumps funded? Consumers cannot be expected to front the cost of this transition on their own. What are the criteria for community heat solutions in such a

² <https://solarenergyuk.org/resource/smart-solar-homes/>

transition? How is the requisite capex for gas hobs and ovens funded? Would this be included in the heating transition or done separately?

These are all questions that remain to be answered, and we hope will be addressed in the delayed Heat and Buildings Strategy. There must also be clear targets and KPIs against which success is measured.

3. How well does Ofgem fulfil its obligations to consumers? Does Ofgem take consumer views into account sufficiently, particularly those of vulnerable consumers?

No comment.

4. What implications will the transition to net zero have for the security of the UK's energy supply? How does Ofgem currently manage issues relating to security of supply?

It is demonstrably achievable to mitigate any risk to security of supply by designing protection systems, markets, and developing network flexibility accordingly to accommodate higher levels of variable generation on the system. It is the National Grid's role to manage electricity flows and ensure security of supply on a real-time basis. Ofgem's role is, and should remain, to ensure that markets are designed to work properly and allow renewable distributed generation to connect.

As it stands, flexible generators are disproportionately penalised and trigger demand reinforcement schemes because DNOs are not looking at market behaviours and likelihood of demand diversification. Bringing a net zero duty into Ofgem's remit will hopefully ensure that archaic security of supply and design standards are updated, and current technology is utilised more effectively. The zero-carbon grid of the future will be based on a solid understanding of historical data, coupled with real-time monitoring, prediction, and a suite of new flexibility tools to allow for the transition to net zero without impacting security of supply.

5. Is Ofgem's current system of price controls appropriate? Does it provide sufficient incentives to invest in the context of the transition to net zero?

To meet the 2050 net zero target, there needs to be huge investment in both the distribution and transmission networks, especially as we head towards a policy of major electrification of heating and transport. It is critical that the price controls allow for the right level of anticipatory investment in the network now, as underinvesting in the network in the

short term could put the delivery of net zero targets at risk down the line. Anticipatory investments should be further encouraged in the RIIO-ED2 methodology.

The level of investment required cannot be delivered simply by shifting costs on to renewable energy generators. Currently, connection and reinforcement costs are one of, if not the most significant barrier to deployment of distributed generation, and future charging regimes should socialise these costs across a wider user base, including end consumers, to meet the scale of reinforcement required. Is it unreasonable to expect wind and solar developers to front the cost of converting a passive baseload centric system into a smarter, more agile distributed generation based system.

COVID-19 made clear that future networks will need to be flexible and able to react swiftly to changes in demand. In May National Grid ESO revealed that it needed to spend an additional £500 million on balancing the electricity grid over the summer as a direct result of the stress factors that COVID-19 lockdown had placed on the UK's energy system. We would underscore the role of flexibility and on-site generation, such as solar and energy storage, to provide system level benefits and reduce the cost and challenges of balancing the system.

There are several other areas where the price control framework could be improved.

Uncertainty Mechanisms

Our members have expressed concerns regarding the Price Control Deliverable uncertainty mechanism. If not properly calibrated to anticipate future needs, by the time funding triggers are reached it may already be too late for physical network upgrades to be deployed to accommodate changes in demand, as these projects can often take years.

The highest priority for network companies in terms of strengthening competition should be to maximise decarbonisation, while delivering against cost considerations for current and future consumers. We would recommend that innovation and competition mechanisms include specific target outcomes such as maximising the MWp volume of new low carbon technologies connected or minimising MWh of variable renewable generation lost to curtailment.

Incentive on Connections Engagement

We do not feel that the Incentive on Connections Engagement (ICE) should be removed as has been proposed; DNOs should remain subject to

the ICE in coordination with their respective Connections Strategy. The ICE is a critical mechanism for ensuring DNOs provide good service to all customers that are seeking a connection. The ICE requires DNOs to provide evidence that they have engaged with their connection stakeholders and responded to their needs, and this is a critical function to ensure accountability and transparency of the connections process. Our members regularly report difficulty and lack of clarity regarding fees and process when engaging with DNOs to secure connection agreements. Contrary to removing the incentive, we feel that the ICE should be strengthened, and additional targeted incentives and outcomes added to ensure DNOs are providing a good service for connection customers. We would further support a full review of the ICE framework, with a view to ensuring alignment with decarbonisation targets.

Totex Benchmarking

Lastly, the totex benchmarking proposed for the next round of price controls is beneficial but not sufficient to create an efficient dynamic that allows the role of demand to reach its full potential. As greater levels of renewable generation and flexibility assets on the network, particularly solar PV and battery storage, is projected to lead to increased levels of opex and reduced capex expenditure over time, more must be done to fully incorporate considerations of the balance of expenditure within DNO business plans, which have historically been driven largely by capex considerations. We support the move to a totex 'plus' system, where utilisation of capacity on the system is also considered as a key metric to ensure decarbonisation goals are met at the lowest cost to the consumer.

6. Is the current system of governance for the UK energy market appropriate to secure the transition to zero? What improvements could be made and what role should Ofgem play?

Further improvements are needed to accelerate the transition to net zero. The Contracts for Difference (CFD) mechanism can be improved to better cater for dispatchable generation via co-located storage assets. The CFD procurement targets must also be based on real world data and aligned with the delivery of the legally binding carbon budgets. Currently, capacity allocation and procurement decisions are governed more by what is politically expedient instead of what is demonstrably necessary to achieve net zero. CFD auctions are also not held frequently enough to deliver the level of generation capacity necessary, as we demonstrated in a recent report.³

³ <https://solarenergyuk.org/resource/lighting-the-way-making-net-zero-a-reality-with-solar-energy/>

The DSO transition also needs to be accelerated, particularly to allow corresponding markets to react more nimbly and rapidly. The regulator must take a wholistic view of the system they want to arrive at and the market signals that will be needed to support it. They should be aiming to educate and incentivise people to move to lower energy actions and socialising the cost for it.

7. Are Ofgem's duties and powers appropriate and sufficiently clearly defined? Do Ofgem's objectives conflict and, if so, how should any conflicts be managed?

See our response to Question 1.

8. Is Ofgem's relationship to Government and Parliament appropriate? Are there issues related to the split of responsibilities, transparency, or accountability?

No comment.

9. How does Ofgem compare to similar bodies internationally? What lessons can be drawn from the experience of other countries or jurisdictions?

Other countries socialise costs for infrastructure completely, as outlined in this recent report by the European Network of Transmission System Operators for Electricity. Many countries, France for example, have much more frequent CFD auctions, as often as every 6-months, that allow them to better adjust their targets. The current 2 year cycle does not allow for this. Many countries have also implemented more robust and long-term grant support for residential retrofit, and many lessons can be learned by looking across Europe to improve upon the short-lived Green Homes Grant Scheme, which had devastating impacts on residential renewable energy installers.

10. Are there any other aspects of Ofgem's work that the Committee should consider?

See our response to Question 2. The administration of the RO and FiT audits process is a major concern for our members and can be further improved to the benefit of the regulator, consumers, and scheme participants. We specifically have recommended to Ofgem that they:

- 1. Improve transparency of RO/FiT Audits Process:** Greater transparency on processes and expectations is needed to improve the efficiency and outcomes of audits for all parties. As a starting point, Ofgem should provide generators with all data and

documentation already on hand pertaining to the relevant site when an audit is opened. Our members have reported in some instances having to submit FOI requests to gain access to their own historic documentation which Ofgem already possesses. This is an unnecessary and avoidable situation. The Renewables Obligation guidance should also provide greater transparency on the relationship between Ofgem and any external consultants undertaking audits, as well as the expectations, requirements, and criteria used in evaluating and selecting external audit consultants. It is also important that any outcomes are clearly communicated and that generators are provided with any relevant materials related to the decision taken.

2. **Provide an appeals process for RO/FiT sites under audit:** The audit process should be revised to provide an opportunity for a final review process before the issuance of a Minded-to-Notification. We appreciate that the MTN is intended to provide an opportunity for appeal but would underscore the significant commercial implications to generators of receiving a MTN. We are therefore recommending the implementation of a review process short of the issuance of a MTN, to provide an avenue for resolution of disputes or the provision of additional information and documentation which reduces the need for generators to turn to Judicial Review as the last resort. Consistency regarding the timing and process by which minded-to and final notifications are issued is also important, as some members have reported receiving both simultaneously which provides no recourse for review or appeal.
3. **Create a process for knowledge sharing on outcomes from internal audit decisions:** We understand the need for Ofgem's audits process to be equitable across technologies and are not suggesting a knowledge sharing process that applies only to solar assets. This process should provide a cross-cutting opportunity for stakeholder engagement and would be to the benefit of all generators and the Authority. This process could be aimed at improving the quality of responses received from sites under audit, thereby reducing the need for back and forth, improving efficiency and reducing response times and administrative overhead for all parties involved. This could be done on an annual basis in the form of an update on important developments and review of relevant trends or insights, or as a workshop with a representative group of scheme participants. An important example of the benefits of such a

process resulted from recent engagement by the audits team with Solar Energy UK's Utility Scale PV Working Group. Ofgem highlighted the importance that no changes to the register are made while an audit is still open, even after a findings letter is issued, as this triggers the suspension of ROCs. This was not widely understood even by generators currently under audit, and these types of process specifics should be socialised across scheme participants to improve outcomes and processes for all.

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