GEOGRAPHY
COLLEGE OF LIFE & ENVIRONMENTAL SCIENCES
University of Exeter
Penryn Campus
Peter Lanyon Building
Penryn
Cornwall TR10 9FE

+44 (0)1326 259327
epg@ex.ac.uk
www.exeter.ac.uk/epg

12th September 2018

Submission to BEIS Consultation on the Feed-in-Tariffs Scheme[1]

Submission from Helen Poulter, Catherine Mitchell and Rachel Bray

Energy Policy Group, University of Exeter

Summary

The University of Exeter Energy Policy Group (EPG) welcomes the opportunity to comment on the closure of the Feed-in-Tariff (FiT) scheme. We do not support the closure of the FiT scheme. We have 5 main concerns:

- The small scale FiT has been a way for communities, small companies and housholders to become involved in the transformation from the 'dirty' to the 'clean' energy system. Delivering the Committee of Climate Change greenhouse gas (GHG) reductions is not going to be possible, or on time, without people giving their meaningful consent. There are very few mechanisms in place which encourage people's inclusion, with the FiT being a very important, if not the most important one. To take that away at a time when Government is trying to work out how to have a customer focused energy system and to achieve meaningful consent from people, who will have to pay for the energy transformation and undertake new behaviours is short-sighted in the extreme.
- The FiT has been a force for innovation. In very few years, 12.9GW of solar has been installed under a variety of business models, scales and new entrants as well as delivering jobs and skills. No other energy policy has been so successful in driving change. Again to get rid of a policy at a time when the UK is trying to innovate is without logic. For example, the UK has been trying to make the DNOs more active since the Embedded Generation Working Group in 2000[2], with very limited success. Altering DNO culture has proved to be incredibly hard. Small scale FITs has been more successful than anything else in moving the passive DNOs to becoming active, and to operate the system in new ways – which is seen as vital for delivering a flexible and smart energy system but which should also save customers billions. BEIS recently pointed that research by the Carbon Trust & Imperial College estimated the

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/726977/FITs_closure_condoc_-_Final_version.pdf
[2] http://webarchive.nationalarchives.gov.uk/20100919181955/http:/www.ensg.gov.uk/assets/21_10_2002_main_report.pdf

benefits of a smart, flexible energy system at **£17-40bn** to 2050[3]. Closing the FiT reflects a lack of coordination and a lack of whole system thinking by Government and Ofgem which is to the detriment of the people.

- Ofgem has no idea what value distributed energy resources (DER) have to the energy system. It has not undertaken any studies. The US, and the NY Reforming the Vision (NY REV[4]) has undertaken these studies and concluded in many cases DER adds value to the system over and above the support mechanism[5]. For the UK to get rid of the FiT without any proper analysis of DER value shows the poor, narrow decision-making currently being taken in Ofgem and BEIS.
- The lack of a policy to replace this scheme for small-scale distributed generation (DG), in particular domestic solar, is troubling. Although costs for DG are falling, lack of government support could halt the growth of small-scale generation, and therefore decentralisation, which has both economic and social value. As the CCC Report Meeting Carbon Budgets: Closing the Policy Gap[6] showed, there is already a policy gap. What we don't need now is to make that worse.
- The Impact Assessment[7] cost of keeping the policy going is derisory at £1 per domestic customer a year given the benefits it provides in terms of innovation. Moreover, the distributional impact assessment is flawed. An obvious aspect is that there are a great many benefits other than those that can be monetised. However, putting that aside, there will be a cost to customers of the move to a sustainable energy system – and that can be assessed in a short term static way – as this IA is undertaken – or in a more evolutionary, dynamic way. The UK has to undertake the energy transformation move, and therefore the FiT IA should be valued as part of that dynamic process – which it is not. As said above, anyway the DNOs have not costed the value of DER to their system costs. And finally, the total cost and the distributional impacts of that transformation will differ depending on the different technology paths, institutional frameworks and costing methodologies. Nowhere has this estimate been undertake in Britain. Again, it is extremely short sighted that such a successful policy as the FiT is closed without such an analysis.
- Finally, the closure of the FiT does not fit with the stated strategic goals of the Industrial Strategy, the Clean Growth Plan or the Smart and Flexible Plan.

Introduction

Current solar capacity in the UK stands at 12.9 GW across just under one million installations[8]. Out of these installations, 20% (2.6 GW) of capacity comes from small scale 0 to 4 kW installations. However as can be seen from the figure 1 there has been little growth in this size of installation since the reduction of the FiT scheme in 2015. In the year July '17 – June '18 only 60.3 MW had been installed, a growth rate of 2.4% over the year and only 2% of total installed capacity. It would be expected that this growth rate would fall as reducing the subsidies for these technologies would increase the payback period making investment into self-generation unviable.

---

[3] Edward Nelson, Senior Policy Advisor to Smart Energy Team, BEIS, Whole System Approaches for Smart, Flexible Energy Systems, Talk given to the ExeterEnergy kick-off meeting, 10 September 2018.

[4] NY State's Reforming the Energy Vision (2014) http://projects.exeter.ac.uk/igov/lessons-from-america-new-york-states-reforming-the-energy-vision/

[5] Reset the Reset 3 blog series looks at the DER assessment process in CA and NY and Blog 3 in particular looks at the DER valuation of NYS http://projects.exeter.ac.uk/igov/new-thinking-reset-the-reset-3-der-walking-the-walk/

[6] https://www.theccc.org.uk/wp-content/uploads/2017/06/2017-Report-to-Parliament-Meeting-Carbon-Budgets-Closing-the-policy-gap.pdf

[7] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/727193/IA_for_FITs_closure.pdf

[8] https://www.gov.uk/government/statistics/solar-photovoltaics-deployment

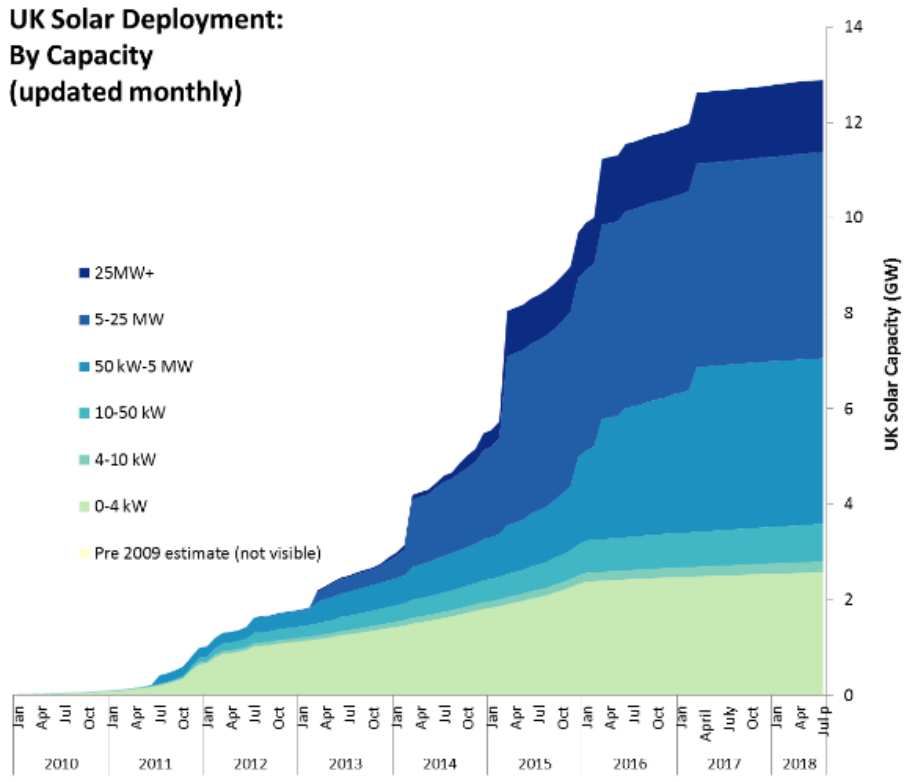

Figure 1 Current capacity of solar deployment in the UK[9]

Contradictory to the Industrial Strategy

This lack of growth in the domestic market is contradictory to the objectives of the Industrial Strategy[10] the aim of which is to 'boost productivity by backing businesses to create good jobs and increase the earning power of people throughout the UK with investment in skills, industries and infrastructure'.

Australia is leading the world in the installation of domestic solar and now has a thriving storage market and trials for new business models to take advantage of its DG resources for the benefit of all customers. The solar boom in Australia created 11,600[11] skilled jobs within the solar industry, the majority of which were for installers who have an average wage of Au$60,000 pa[12].

The cost of solar in Australia is now the cheapest in the world because of the development of volume implementation which has led to cost reductions across the sector[13].

Sonnen has recently announced its plans to create a battery manufacturing site on a previous car manufacturing site in South Australia, again creating skilled jobs in the local area[14]. This storage market and the need for new business models came off the back of high installation rates which currently stand at an average of 25% of households (5.6GW), this in comparison to 6% of UK households (2.6 GW).

[9] https://www.gov.uk/government/statistics/solar-photovoltaics-deployment
[10] https://www.gov.uk/government/topical-events/the-uks-industrial-strategy
[11] http://newsroom.uts.edu.au/news/2016/12/pay-solar-households-fairly-we-need-understand-true-value-solar
[12] https://www.payscale.com/research/AU/Job=Solar_Energy_System_Installer/Hourly_Rate
[13] http://projects.exeter.ac.uk/igov/new-thinking-tales-of-the-unexpected/
[14] http://projects.exeter.ac.uk/igov/global-insights-11th-september-2018/

The UK needs to promote DG to enable businesses and new business models within a sustainable energy system which in turn will promote 'good jobs' and increase 'investment in skills, industries and infrastructure' at a local level as well as at a national level.

Small scale FiT technologies as drivers of innovation

In the UK, there are myriad DER projects which are delivering innovation, new business models and new entrants.

One project involving a large supplier is Centrica's Cornwall Local Energy Market project (CLEM). This project works as an enabler, aiming to release network capacity as a result of more intelligent management of demand, generation and storage particularly in constrained areas of the grid. It will incentivise participants to turn up, down, export or import depending on what renewable generation is doing on the grid in real time. The CLEM project will do this through designing and building a local marketplace platform for the network to request, and the market to provide, flexible demand, generation and storage to help optimise capacity on the local grid. The platform will assist in the co-ordination of the distribution networks and the transmission system[15].

Other projects of multiple other sizes, are creating other business models. These new businesses and business models will exist, and thrive, when there is demand for their services but there needs to be enough small scale generation in place to create this demand.

The Clean Growth Strategy[16] (CGS) is to support the dimension of the Industrial Strategy. The CGS plans to invest '£265 million in smart systems to reduce the cost of electricity storage, advance innovative demand response technologies and develop new ways of balancing the grid'. We agree that these objectives are important in reducing costs to customers. These objectives are able to be met by small-scale generation as well as larger scale and industrial customers. Indeed, one of the background reports to the CCC 5th carbon budget show that the least cost way of capturing flexibility is from a combination of local and national flexibility providers[17]. It is important that the government enables investment into these small-scale generation technologies for domestic, small business and community customers to allow grid services at all levels of the energy system which in turn will reduce costs overall. The whole system advantages far outweigh the costs of continuing the small scale FiT.

Meaningful Consent

One of the policy objectives within the Clean Growth Strategy is to 'Deliver Clean, Smart, Flexible Power' which includes implementing the Smart Systems and Flexibility Plan[18]. A crucial element of the Smart Systems Plan is the need for energy customers to become engaged with and understand the energy system and the need for transformation. Current thinking suggests that putting people at the centre of energy system transformation will enable meaningful public consent. This consent is needed as people pay for the energy system through energy bills and taxes. Decentralisation can encourage this meaningful consent from energy customers by allowing them to take action – either with community involvement, self-generation or engaging with new business models – which enable

[15] https://www.centrica.com/innovation/cornwall-local-energy-market
[16] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf
[17] Shakoor, A. *et al.* (2017) 'ROADMAP FOR FLEXIBILITY SERVICES TO 2030'. Available at: https://www.theccc.org.uk/wp-content/uploads/2017/06/Roadmap-for-flexibility-services-to-2030-Poyry-and-Imperial-College-London.pdf (Accessed: 8 November 2017). And https://www.theccc.org.uk/wp-content/uploads/2018/06/Imperial-College-2018-Analysis-of-Alternative-UK-Heat-Decarbonisation-Pathways.pdf
[18] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/633442/upgrading-our-energy-system-july-2017.pdf

local benefits[19]. Decentralisation is a useful mechanism to encourage the public to engage with energy system transformation. Ending subsidies for small-scale generation technologies before costs are at a level where a reasonable proportion of householders are able to invest will (i) limit decentralisation (ii) limit the ability of customers to be a part of the transformation and so (iii) limit meaningful consent.

Distributional Impacts

The Impact Assessment[20] is clear about the problem under consideration, why Government intervention is necessary and what the goals of the policy are, as set out below, but which appears to have taken a very narrow approach to assessing the impacts.

What is the problem under consideration? Why is government intervention necessary?

- *Electricity generation accounts for over 20% of UK greenhouse gas emissions and without government intervention, market incentives would not have not been sufficient to meet the UK's climate change commitments. The Feed in Tariffs (FIT) scheme was introduced in 2010 to provide support for small-scale low-carbon generation (generation tariff) and a route to market (export tariff). As costs decline, public attitudes change and technology develops, the requirement for government support is reducing. Government proposes to close the current FIT flat rate export tariff, given the government's desire to move towards fairer, cost reflective pricing and the continued drive to minimise support costs on consumers as set out in the Industrial Strategy and Clean Growth Strategy. Further, in 2015, government announced its intention to end generation tariffs for new entrants in March 2019 and is now seeking to implement that decision.*

What are the policy objectives and the intended effects?

- *The policy intention is to close the scheme to new applicants. Specifically, to limit the impact of the FIT scheme on consumer bills. The primary objective is to close the existing export tariff at the same time the generation tariff will close, on 31 March 2019, so that no new applications will be accepted under the scheme (subject to a number of exceptions) after 31 March 2019. In parallel an administrative measure to the FIT scheme is suggested, specifically allowing net metered exports to be included in the levelisation fund.*

The UK needs a much more rigorous discussion of the distributional impacts of moving to a sustainable, smart and flexible energy system. These impacts have to be undertaken with an evolutionary economic viewpoint – which the IA was not – but just as importantly, the assessments have to be related to the 'real' situation of what people will and will not do. For public policy propositions to be successful they have to make sense to people and fit with their everyday lives – and the propositions which do this are unlikely to be a purist economic rationale. The UK has to make the energy system transform and in order to do this the Government and Ofgem has to become much more pragmatic and realistic in its public policy approach.

[19] http://projects.exeter.ac.uk/igov/category/events/igov-2-events/people-at-the-heart-of-the-energy-system/
[20] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/727193/IA_for_FITs_closure.pdf

There will be a cost of moving to a sustainable, equitable energy system. The UK has to make that move with a process which ensures that the distributional costs do not fall unfairly. This means that a new way is going to have to be found to pay for this transformation – and this is likely to have to be alongside a new customer protection programme.

The Government cannot hide behind distributional impacts as an excuse not to deliver a sustainable energy system. Our current energy system is already scandalously unjust given the high levels of fuel poverty. The Government should be confronting this issue and moving the UK into a new process which protects vulnerable customers whilst also delivering a sustainable energy system. In the short term, this is a targeted energy efficiency policy to improve the housing quality of fuel poor and vulnerable customers, paid for by other means that socialises these costs across all customers bills.

Conclusion

Closing the FiT is a mistake and reflects poor decision-making. It also reflects how naïve so many of the Government's and Ofgem's stated policy concerns are – such as an objective to have a smart and flexible system; to deliver innovation; to be people centred; to support whole system thinking – without knowing whether the capacity of DG that we currently have will enable any of these policy concerns. We hope that the outcome of the consultation is the continuation of the FiT and export tariff scheme and that the government undertake more rigorous research into the value of DG to both the economy and the decarbonisation agenda