



Department  
of Energy &  
Climate Change

# Review of the Feed-in Tariffs Scheme

Government Response

17 December 2015

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URN 15D/542

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# Executive Summary

## Background

- 1.1. The Department of Energy and Climate Change (DECC) launched a consultation on the future of the Feed-in Tariffs (FITs) scheme on 27 August 2015. The consultation proposed a number of measures to meet two core objectives. Firstly, it was necessary to comply with the undertaking in EU State Aid approval requiring that the UK Government review the support offered by the FITs scheme every three years. This ensures that Government is not compensating generators beyond levels agreed with the EU Commission. Secondly, following higher than projected levels of deployment, Government set out proposals aimed at controlling the cost of the scheme to limit the impact on consumer bills. As the costs of renewable energy deployment fall, it is only right that subsidy levels should fall too.
- 1.2. FITs has been hugely successful in attracting investment in small-scale renewable electricity deployment. Since the launch of the consultation, DECC has seen a further significant increase in the levels of deployment both in domestic scale solar and in projects pre-accrediting (securing support) before the mechanism was withdrawn on 1 October as part of earlier cost control measures. The scheme now supports over 780,000 installations with a total of 4.2 gigawatts (GW) of renewable electricity generating capacity across all supported technologies.
- 1.3. FITs is one of the renewable schemes funded through the Levy Control Framework (LCF) which is designed to control the costs of supporting low-carbon electricity, paid for through consumers' energy bills. Support for FITs projects is currently projected to cost at least £1.74bn a year by 2020/21, if measures are not taken to control spend. This compares to projected spend of £1.125bn a year by 2020/21, when the £7.6bn LCF 2020/21 cap was set in 2013,<sup>1</sup> due to the success of the scheme and significantly higher levels of deployment than anticipated. As set out in the Office for Budget Responsibility (OBR) projections in July and again in November this year,<sup>2 3</sup> the LCF annual caps are projected to be exceeded from 2015/16 onwards for this LCF period. Action therefore needs to be taken to bring this projected spend down in order to manage the LCF impact on consumer bills.

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<sup>1</sup> Electricity Market Reform Delivery Plan: <https://www.gov.uk/government/publications/electricity-market-reform-delivery-plan>

<sup>2</sup> Office of Budgetary Responsibility (OBR) Environmental Levies forecast (Table 2.7), 8 July 2015: [http://budgetresponsibility.org.uk/pubs/Fiscal\\_Supplementary\\_Tables-20151.xls](http://budgetresponsibility.org.uk/pubs/Fiscal_Supplementary_Tables-20151.xls)

<sup>3</sup> Office of Budgetary Responsibility (OBR) Environmental Levies forecast (Table 2.7), 25 November 2015: [http://cdn.budgetresponsibility.independent.gov.uk/Fiscal\\_Supplementary\\_Tables\\_November\\_2015.xls](http://cdn.budgetresponsibility.independent.gov.uk/Fiscal_Supplementary_Tables_November_2015.xls)

Affordability was a key consideration in the decisions made by Government in light of the consultation response.

- 1.4. However, Government is determined to deliver a low-carbon future that meets both the UK's international obligations and domestic ambitions. Government also recognises the significant role FITs has made in engaging non-energy professionals in the electricity market and the role small-scale generation can play in future on a path to subsidy-free deployment.
- 1.5. Government has therefore decided to keep the FITs scheme open beyond January 2016. This is only feasible because of the cost control measures introduced as part of this response. New tariffs that provide appropriate rates of return within a capped budget will, Government believes, allow deployment to come forward whilst providing significantly better value for money to bill payers. The scheme will remain under review to ensure it continues to achieve its objectives until generation tariffs end in 2019.
- 1.6. This response sets out analysis of the responses received during the consultation and, in light of that response and wider budgetary considerations, sets out further detail on Government's decisions for the future of the FITs scheme.

## Feedback

- 1.7. The consultation was carried out using a variety of different formats. An e-consultation platform was used to help guide respondents through each question and provide an opportunity for specific feedback. Responses were also received directly via e-mail and post. DECC engaged directly with a number of trade associations and held stakeholder events across Great Britain seeking views from various sectors, groups and individuals, as well as an online web-chat available for all.
- 1.8. Two e-mail campaigns were also established through Greenpeace and 10:10 seeking to retain support through FITs for small-scale renewables, particularly solar. A petition was also run by the Campaign Against Climate Change, via Care2, which was in support of retaining support under the FITs scheme particularly in relation to solar and wind. It received over 100,000 signatories from across the world – of which 29,000 were from the UK. A petition was also initiated on the UK Government and Parliament website on the day the consultation was launched seeking DECC to review the current approach to the solar feed-in tariff. The petition has attracted over 27,000 signatories and DECC provided a response during the consultation period.<sup>4</sup>

## Written responses

- 1.9. In total, DECC received nearly 55,000 written separate responses to the consultation. This included 2,634 unique responses addressing the questions in the consultation and 52,000 as part of e-mail campaigns run by Greenpeace and 10:10. DECC also received a response from Fox Primary

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<sup>4</sup> <https://petition.parliament.uk/petitions/106791>

School in the format of a signed (papier-mâché sun) petition and a hard copy petition from 10:10 in addition to the e-mail campaign.

- 1.10. The vast majority of the campaign responses from Greenpeace and 10:10 were not aimed at any particular question in the consultation document, but followed similar themes and focused on several key areas. Around 40% (21,000) of campaign responses focussed on the need for government to invest in more renewables. Predominantly these responses cited solar as a key renewable technology to invest in and/or suggested this support should be instead of investment in fossil fuel based generation or, in some cases, instead of nuclear – citing the support for Hinkley Point C. Approximately 11,500 focussed their response on climate change impacts of the proposals. Many of these responses focussed on decisions made today impacting on future generations. Nearly 2,500 responses concentrated their views on the potential loss of jobs by cutting support, particularly in the solar sector.
- 1.11. Of the remaining responses, a small proportion focussed their responses on the impacts of cutting FITs on communities and the fact that the measures proposed would have a negligible impact on consumer bills. A significant number of responses – just over 13,000 – highlighted the impact of the measures on a combination of renewables deployment, climate change, bills, jobs and communities. Approximately 2,500 responses were submitted either blank or with comments outside the scope of the consultation; these were deemed to be in support of maintaining the FITs scheme without intervention. Finally, just over 1,000 campaign responses were received after the consultation deadline. These were not read or taken into account when making decisions.
- 1.12. Specific (i.e. non-campaign responses) were received from a wide range of stakeholders across a number of sectors with an interest in FITs. There was a strong response from the solar industry, community energy groups and individuals. Representations from other sectors such as hydro, anaerobic digestion, wind and micro-CHP were also made along with other technologies outside the scope of the scheme. A number of local authorities, investors, consultants and engineers also responded with a small number of representations from faith groups and academics.
- 1.13. In addition to formal consultation responses, DECC acknowledges the letters from Members of Parliament and members of the public that Ministers received during the consultation period. Whilst the views and comments have been noted, they are not included in the numbers of unique respondents to the consultation set out above.
- 1.14. Organisations that clearly identified themselves in responding to the consultation are listed at Annex A.

### Stakeholder events

- 1.15. During the consultation, DECC organised and hosted workshops in Cardiff, London and Edinburgh (two workshops), participated in a session in Bristol organised by Regen SW, as well as hosting several other meetings with trade associations and FIT licensees.

- 1.16. There was participation in the workshops from across all sectors and technologies; and one of the Edinburgh sessions was focused specifically on community energy. In total, DECC met with around 350 stakeholders. Demand for places at the Cardiff and London workshops significantly outstripped the number of places, and DECC organised a separate webchat to give stakeholders a further chance to engage with the consultation.
- 1.17. The workshops were an opportunity for DECC to present its proposals and for stakeholders to share their feedback and put their questions to DECC. The main points and themes which emerged from the workshops were reflected in the consultation responses and are responded to elsewhere in this document. Below is a summary of the main themes which DECC took away from these workshops.
- 1.18. Many stakeholders raised the impact of proposed changes on jobs and the wider economy and questioned the impact on the UK's renewable energy and climate change targets.
- 1.19. Many participants challenged the assumptions made in the WSP Parsons Brinckerhoff (PB) report, and DECC encouraged them to respond with robust evidence via the consultation. There was discussion in particular around rates of return, and whether the proposed tariffs had set these at the right level. Similarly, discussion focused on the proposed degeneration pathways and factors which would influence technology cost reductions over the coming years. Various stakeholders raised proposals over the export tariff, and the interaction of this with revised generation tariffs.
- 1.20. Discussion on deployment caps focused on the proposed overall figure of £75-100m, and how installations could be prioritised within that cap. Many stakeholders focused on the importance of pre-accreditation to be reintroduced to make any cap workable and some felt the proposed level of the budgetary cap was not sufficient to sustain an industry.
- 1.21. There was a strong community energy presence at the workshops, and much discussion about how deployment of community projects could best be incentivised within a limited budget. Participants suggested community projects were different to commercial projects and provided additional benefits, and questioned the possibility of quantifying these. Several stakeholders suggested separate tariffs for community installations or separate allocation under a budget cap.

### **Additional engagement**

- 1.22. A number of separate events were also organised at the request of some organisations. DECC Minister Andrea Leadsom led a round table discussion of Trade Associations representing technologies and sectors supported by the FITs scheme and other interested representatives including consumer groups, environmental campaign groups and industry Trade Unions. Meetings were also held with electricity suppliers and investors as well as official-level meetings with technology representatives.
- 1.23. While the design of FITs is a matter reserved to the UK Government, the Smith Commission recommended that there be a formal consultative role



for the Scottish Government in designing renewables incentives. In accordance with this principle, Government has actively engaged with and directly consulted with both Devolved Administrations affected by these decisions – Wales and Scotland. Both administrations have made representations to DECC as to the future design of FITs and, where able, proposals have been amended accordingly.

- 1.24. The Feed-In Tariff scheme currently covers Great Britain only and does not operate in Northern Ireland where energy policy is largely devolved. DECC chose to limit the scope of this consultation to Great Britain but DECC engages regularly with the Department of Enterprise, Trade and Investment in Northern Ireland to discuss support for renewables projects.
- 1.25. Given the volume of responses, not all views received are reflected in the summaries of responses, but all views were considered. These summaries are intended to provide a representative overview of the feedback received and to explain the reasons behind the final decision.
- 1.26. Some respondents sought greater detail on how tariffs were determined as part of the consultation. The Impact Assessment published alongside the consultation and the accompanying report from PB set out the assumptions used based on evidence PB was able to collate. These assumptions have been updated in light of evidence received and are set out in more detail in the Impact Assessment accompanying this response.

## Renewables support

- 1.27. Government continues to consider renewables to be a key part of the transition to a low-carbon economy and an essential part of the energy mix. The UK is making good progress towards the EU target of 15% final energy demand from renewables by 2020 and is committed to its aim of achieving 30% of electricity from renewable sources by 2020. The UK is on track to meet its next interim target of final average energy consumption over 2013/14. The provisional figure, released in June 2015,<sup>5</sup> showed 6.3% of final energy consumption for 2013/14 came from renewable sources, against a target level of 5.4%. Progress on UK renewable electricity deployment has been strong and the pipeline of projects towards 2020 remains healthy. Government expects to meet the renewable energy target of at least 30% of electricity demand to be met by renewable sources.
- 1.28. However, Government support is designed to help technologies stand on their own two feet, not encourage reliance on subsidies. It is one of this Government's priorities to bring about the transition to low-carbon generation as cost effectively and securely as possible. As Government moves from a demand-led to a competition-led allocation of support, it expects to see continued cost savings, ensuring support for renewable deployment while delivering better value for money for consumers. Evidence provided before

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<sup>5</sup> <https://www.gov.uk/government/statistics/renewable-sources-of-energy-chapter-6-digest-of-united-kingdom-energy-statistics-dukes>

and during consultation suggests that certain technologies eligible for FITs, with well-sited projects, require a lower tariff than current levels and in some cases require very little support beyond possible bill savings and export revenues.

- 1.29. The measures set out in this response are about protecting bill payers from unacceptable costs in the future and ensuring that support for renewables remains affordable.
- 1.30. A large number of respondents compared the costs of support for renewables with the cost of support for new nuclear power. DECC is committed to a mix of all technologies. There is currently no either/or choice between nuclear and renewables. Nuclear power is a reliable long-term cost-effective source of baseload power, and being low carbon will also help Britain meet its carbon emissions targets.
- 1.31. A large number of respondents also suggested Government should stop supporting fossil fuel based technologies, referring in many cases to the extraction of unconventional gas and the use of hydraulic fracturing. Government believes that gas, as the cleanest fossil fuel, is part of the answer to climate change. It will provide a cost-efficient bridge for our transition to a green future, and will be especially significant as the UK moves away from coal generation. Government is supportive of efforts to rationalise and phase out fossil fuel subsidies in other countries that encourage wasteful consumption and is working with international partners to deliver this. There are a wide range of definitions of what constitutes a fossil fuel subsidy. The UK, like the EU and the IEA, excludes tax treatment from its definition of what is meant by a fossil fuel subsidy, using international market price as a benchmark. The UK therefore has no fossil fuel subsidies. Government believes that this is the correct approach, allowing a flexible response to the needs of the economy.
- 1.32. Many consultation responses focused on the employment impacts of the changes proposed. It was widely argued, in response to several questions, that this change would lead to reduced deployment across all sectors, with significant job losses and adverse consequences for the growth of industry. A small number of companies provided a quantified estimate of anticipated job losses. Respondents highlighted the potential loss of skills and expertise and the impact along the supply chain and through the wider economy, making future cost reductions less likely.
- 1.33. The available data on employment levels in the small scale renewables industry is not definitive across the different technologies and at each scale. It also does not allow for a comprehensive breakdown of the different job types which the industries support. It is therefore difficult to quantify the impacts on employment. More information is set out in the accompanying Impact Assessment.
- 1.34. Government does not consider that the amount of deployment currently supported under the scheme is sustainable and it is not acceptable for unlimited costs to be levied on consumers. The measures set out in this response seek to maintain a viable renewables industry which, in the longer-term, can continue to reduce its costs, seeking to achieve grid parity, and to

provide other technology sectors with tapered support, enabling further deployment over coming years.

## Summary of decisions

### Ensuring better value for money

- 1.35. The consultation proposed new tariffs for solar PV, wind and hydro technologies and relied on assumptions provided by PB. PB determined assumptions through direct engagement with industry and supplemented data received through literature review and internal expertise. Government acknowledged that PB did not receive a significant amount of data and therefore accepted there was uncertainty around some of the assumptions. At consultation, just over 100 respondents provided new robust evidence, many of those returns provided multiple data points. The strongest evidence provided was around capital expenditure assumptions.
- 1.36. Government has revised tariffs based on the evidence received. Most of the new tariffs provide for a higher rate of return than previously consulted on and, in most cases, the level of support has increased beyond levels proposed. In determining these tariffs, Government believes that the level of incentive offered reflects the cost of deployment whilst remaining within the boundaries of EU State Aid approval. Under new tariffs, Government is targeting a 4.8% rate of return for solar, 5.9% for wind, and 9.2% for hydro. More information on the evidence received is set out in the analysis to questions 1 and 2 below and more detail on how this evidence was used to set tariffs is enclosed within the accompanying Impact Assessment.
- 1.37. New tariffs are set out in table 1 below

Table 1 – New Generation Tariffs

Tariffs (p/kWh)	Installed capacity	Consultation tariffs	New tariffs (Jan 2016)
PV	<10kW	1.63	<b>4.39</b>
	10 - 50kW	3.69	<b>4.59</b>
	50 - 250kW	2.64	<b>2.70</b>
	250-1000kW	2.28	<b>2.27</b>
	> 1000kW	1.03	<b>0.87</b>
	Stand alone	1.03	<b>0.87</b>
Wind	<50kW	8.61	<b>8.54</b>
	50-100kW	4.52	<b>8.54</b>
	100–1500kW	4.52	<b>5.46</b>
	>1500kW	0.00	<b>0.86</b>
Hydro	<100kW	10.66	<b>8.54</b>
	100-500 kW	9.78	<b>6.14</b>
	500-2000kW	6.56	<b>6.14</b>
	>2000kW	2.18	<b>4.43</b>

## Controlling spend

- 1.38. FITs has either achieved (in the case of wind, anaerobic digestion and hydro) or is achieved within the range of deployment (in the case of solar PV) projected deployment levels for 2020/21 from the 2012 FITs Review. The consultation proposed that FITs should be limited to a maximum overall budget of £75m-£100m a year levied from consumer bills by 2018/19 from January 2016, as the maximum that the Government considers affordable within the context of higher than expected spend on the LCF. The consultation sought views on a new system of quarterly deployment caps broken down by technology and degression band, to enforce this budget.
- 1.39. The consultation asked three questions on the principle of introducing caps for FITs and proposals for how these caps should be designed and implemented. A summary of responses to each of these questions and the Government's response to this is provided in more detail below. Overall, Government recognises that there was a large amount of opposition to the principle of capping expenditure under FITs and the level of the deployment caps proposed. Government also recognises that there were particular concerns about the uncertainty for industry, householders, community groups and others operating in a capped system. In this context, there was also a strong current of concern that, without some sort of ring-fencing, the non-energy professionals originally targeted by FITs could miss out on the limited funding.
- 1.40. Some respondents commented that they felt unable to provide detailed comment because they did not understand the proposals. However, the number of respondents in this category was small, particularly when compared to the large numbers who provided detailed comments and suggestions on the proposal. Government has though endeavoured to set out decisions on caps as clearly as possible.
- 1.41. Having given careful consideration to responses received, Government remains convinced that deployment caps are the most robust method of controlling expenditure under FITs and that a budget of £100m is appropriate to limit the impact of the scheme on consumer bills. On the evidence received, Government considers that the scheme will be able to continue in a way which limits new expenditure through a system of quarterly deployment caps.
- 1.42. All new installations applying for FITs on or after 15 January 2016 will be subject to a new system of caps from 8<sup>th</sup> February 2016 with the following key features:-
- Maximum of £100 million a year for new installations by April 2019 from February 2016 divided between technologies and degression bands to set quarterly deployment caps (expressed in terms of aggregate total installed capacity of MW) as set out in Table 2 below.
  - Deployment to be tracked by Ofgem based on the total installed capacity of new installations registered on the Microgeneration Certification Scheme (MCS) database on or after 15 January and Ofgem's records of applications for ROO-FIT accreditation received on

or after 15 January and ROO-FIT pre-accreditation received on or after 8 February.

- The time and date (to the second) of an installation's MCS certificate or application for ROO-FIT accreditation or pre-accreditation to be the basis for determining whether or not that installation qualifies under any particular cap.
- A queuing system for applicants who miss out on a cap, meaning that their applications for FITs accreditation are frozen and they have a place in the queue when the next cap opens (but no guarantee of any support until they qualify under a cap).
- A two-speed system for recycling underspend:
  - (i) In-year rollover process – any unused capacity for a particular technology and degression band from one quarter simply gets added on to the next quarter; and
  - (ii) A budget reconciliation for FITs, which we expect to be biannual but could be more or less frequent depending on deployment: this would bring together any underspend and, subject to addressing any budgetary pressures, redistribute it as deployment cap 'top-ups'. In considering where Government redistributes these 'top-ups', Government will take into account its policy priorities. At the moment, we expect this redistributed underspend could be towards solar PV to continue supporting a trajectory towards subsidy-free deployment, as well as providing additional support to meet our earlier deployment projections.

Table 2 – Maximum Deployment caps (deployment per quarter)

		2016				2017				2018				2019
Maximum Deployment (MW)		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
PV	<10kW	48.4	49.6	50.6	51.7	52.8	53.8	54.2	55.9	57.0	58.0	59.1	60.1	61.1
	10-50kW	16.5	17.0	17.4	17.8	18.2	18.6	18.7	19.4	19.8	20.3	20.7	21.1	21.5
	>50kW	14.1	14.5	14.9	15.4	15.8	16.2	16.4	17.1	17.6	18.0	18.5	19.0	19.4
	Standalone	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Wind	<50kW	5.6	5.6	5.5	5.5	5.6	5.5	5.5	5.4	5.5	5.4	5.4	5.3	5.4
	50-100kW	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	100-1500kW	6.8	6.7	6.6	6.5	6.4	6.3	6.2	6.1	6.1	5.9	5.8	5.7	5.7
	1500kW-5000kW	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Hydro	0-100kW	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4
	100-5000kW	6.1	6.2	6.3	6.3	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.3	6.3
AD	All	5.8	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

1.43. Table 3 provides an estimate of the number of installations that could come forward under each cap. These numbers are based on the average installation size within each band and are therefore only indicative. If larger than average installations come forward, then the number of installations that are included within the deployment cap will be lower.

Table 3 – Estimated number of installations at maximum deployment (deployment per quarter)

		2016				2017				2018				2019
Estimated number of installations <sup>6</sup>		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
PV	<10kW	15330	15710	16050	16380	16720	17060	17170	17720	18060	18390	18710	19040	19360
	10-50kW	500	510	520	530	550	560	560	580	600	610	620	630	650
	>50kW	70	70	70	70	80	80	80	80	80	90	90	90	90
	Stand-alone	2	2	2	2	2	2	2	2	2	2	2	2	2
Wind	<50kW	540	540	540	530	540	530	530	520	530	520	520	510	520
	50-100kW	4	4	4	3	4	3	3	3	3	3	3	3	3
	100-1500kW	20	20	20	20	20	20	20	20	20	20	10	10	10
	1500kW-5000kW	2	2	2	2	2	2	2	2	2	2	2	2	2
Hydro	0-100kW	50	50	60	60	60	60	60	70	70	70	70	70	70
	100-5000kW	10	10	10	10	10	10	10	10	10	10	10	10	10
AD	All	10	10	10	10	10	10	10	20	20	20	20	20	20

1.44. Analysis of responses to the questions on caps, together with more detail on the Government’s final decisions on how to proceed, is set out in Chapter 2 of this Government response. Ofgem is also publishing guidance on how the system of caps will operate to assist generators and industry.

## Degression

1.45. The consultation proposed two forms of tariff degression tied to the quarterly system of budgetary caps. Default degression was proposed with the aim of maintaining a constant rate of return. Therefore, it will take into account projected changes to the bill savings and to the costs of installations. Alongside this, the consultation proposed retaining contingent degression. Contingent degression is designed to respond to spikes in the level of deployment, indicating deployment could potentially happen with less support and provide better value to the consumer. There were two thresholds of contingent degression proposed, 5% when projected levels of

<sup>6</sup> Note that this is based on the average installation size – the number of installations permitted under the cap could be higher or lower.

deployment are reached and 10% when technology deployment caps are reached. Contingent depression would be in addition to default depression.

### Default

- 1.46. Many respondents did not agree with proposed default depression levels, often citing an overly optimistic view by Government on the likely reductions in deployment costs. However, evidence submitted did not provide a strong enough case for Government not to retain default depression. Government is required to maintain a constant check on the rate of return to keep in line with current EU State Aid approval.
- 1.47. The final default depressions, determined by technology band and by quarter, are set out in response to question 3 below.

### Contingent

- 1.48. Many respondents felt contingent depression was unnecessary in a system of constrained caps, likely to reduce tariffs to non-investable levels too quickly and was overly complex. Government remains committed to providing better value for money to bill payers and, in doing so, must be able to respond to rapid changes in deployment costs, previously witnessed in relation to the falling cost of solar PV deployment. Contingent depression provides a tool to respond to these changes and therefore Government has decided to retain its function.
- 1.49. Recognising that two thresholds provided added complexity, Government has decided to implement only one depression threshold at the level of each quarterly cap. The contingent depression rate will therefore be 10% if the cap is hit. DECC will keep this rate of contingent depression under review and consider amending it if support and/or deployment levels are adversely impacted by a constant series of tariff depressions. More detail is set out in the response to question 4 in the consultation analysis below.

### Pre-accreditation

- 1.50. In the Government response to the consultation on pre-accreditation, published on 9 September, Government announced its decision to remove the ability to pre-accredit under the scheme. The rationale for doing so was clear: to maintain a viable scheme for the future, accelerating costs, brought about by higher than projected deployment must be brought under control. However, Government committed in that response to consider re-introducing pre-accreditation if, after consultation, it decided that the proposed new cost control measures would be effective at limiting potential future impacts on consumer bills and that pre-accreditation would be an appropriate means of enabling deployment under a cost controlled scheme.
- 1.51. Government believes that a system of caps, as set out in this response, does indeed provide increased protection against the risk of over-deployment increasing consumer bills. Many respondents to the consultation also believed that a system of caps created too much uncertainty for individuals or groups to invest in projects, if there was no guaranteed support



when seeking accreditation. This uncertainty could consequently lead to increasing the level of support required in order to invest.

- 1.52. Government therefore considers that the re-introduction of pre-accreditation is appropriate. Pre-accreditation will be re-introduced from 8 February 2016. As before, it will be available for solar and wind projects over 50kW and for all anaerobic digestion and hydro projects. Validity periods of pre-accreditation will be six months for PV; one year for wind and AD; and two years for hydro. Government will also reintroduce the additional six month period for community energy projects on top of the relevant period per technology. Applications for pre-accreditation will be subject to the new deployment caps in the same way as applications for full accreditation.
- 1.53. Government confirms maintaining the relaxation of energy efficiency criteria for qualifying communities and schools under the pre-registration system.<sup>7</sup> However, we will not reintroduce the tariff guarantee element of pre-registration at this time.<sup>8</sup> We have not re-introduced the tariff guarantee at this stage as we do not feel the current system is compatible with our cost control measures, and cost control must take priority in this Review. However, we intend to reintroduce the pre-registration tariff guarantee if we can devise an implementable system which delivers robust cost control and avoids gaming. We will issue an update early next year.

### **Scheme focus**

- 1.54. The consultation sought views on whether the scheme should be re-focussed towards any particular group or sector. Respondents gave mixed views with a strong emphasis on focussing a scheme towards householders and communities. There was also support to focus the scheme towards specific technologies, with building-mounted solar the most frequently cited.
- 1.55. Government does not believe re-focusing the scheme at this time meets the core objective to control costs of the scheme. Such a change may require notification to the EU Commission, a procedure which could introduce significant delay. However, Government will keep this decision under review as detailed in paragraph 1.66 of the Executive Summary below.

### **Extensions**

- 1.56. The consultation sought views on whether to remove the ability of installations to extend their capacity under FITs. There was only limited support for the proposal with the majority of respondents disagreeing with the proposal, principally because it was suggested extensions offered better value for money to the generator. Government has decided that the right to

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<sup>7</sup> Qualifying non-domestic community and school installations with a Total Installed Capacity up to 250kW can be eligible for higher solar PV tariffs at EPC Band G rather than EPC Band D.

<sup>8</sup> Qualifying community solar PV installations up to a Total Installed Capacity of 50kW were formally able to receive a tariff guarantee for up to a year from the date of their application.

receive a generation tariff for extensions should be removed for all installations which commission on or after 15 January 2016. Whilst encouraging the deployment of renewable installations, the scheme should provide better value for money for the consumer, rather than the generator, and extensions may provide generators a tariff that provides a higher rate of return on investment than that set out in the scheme's EU State Aid approval.

- 1.57. Some respondents proposed the introduction of a grace period. Government considers the period of notice, since the launch of the consultation, sufficient time to accredit an extension in advance of the new capped scheme. Further detail is set out in the analysis of, and decision to, question 16 below.

### **Other decisions**

- 1.58. A number of other proposals were set out as part of the consultation and further details on administrative changes to the scheme in respect of MCS standards, proposals on the levelisation exemption scope, levelisation exemption caps, levelisation fund interest and EPC requirements prior to commissioning are set out in the detailed analysis below.
- 1.59. Government does not propose introducing changes to the FITs scheme in relation to the export tariff, tariff indexation, competition, smart meters, grid management and sustainability criteria for anaerobic digestion at this time. However, Government may consult further on these proposals in future.

### **Next steps for implementation**

- 1.60. The budget agreed for FITs to April 2019 is up to £100m of new spend from January 2016. In order to preserve this budget for future deployment at tariffs which provide better value for money to the consumer, Government intends to implement a pause to the scheme for 4 weeks. The pause will start on 15 January 2016 and will continue until 8 February 2016 when the new tariff and deployment caps will be in place. In deciding to implement a pause Government has balanced the need to preserve the budget against concerns raised in consultation that a pause would limit the ability of some companies to operate. Government considers a pause of four weeks to be justifiable in an effort to preserve the longer-term future of the scheme.
- 1.61. The practical effect of this is that, during the pause, no new installations will be accredited for FITs save for those with pre-accreditation granted before 1 October 2015 who are applying for accreditation within the period of validity of the pre accreditation. Generators will still be able to apply for FITs in the normal way. Installations which commission and apply for FITs during the pause will be in the queue when the new deployment caps and tariffs come into force on 8 February 2016.
- 1.62. The Government recognises that there may be some cases where applications for FITs are received on or after 15 January in respect of installations which have MCS certificates dated before 15 January. Table 12,

in response to question 12 in the detailed analysis, provides an overview of the approach for transitional installations.

- 1.63. An amended FIT Order and Licence Condition modifications will be laid in Parliament on 17 December 2015. The Order will be subject to a minimum 21 day praying period before it comes into effect on 15 January 2016. The Licence Condition modifications will be subject to a 40 day praying period before coming into force on 8 February 2016.
- 1.64. The first cap period will run from 8 February to 31 March 2016. Ofgem guidance on how to apply will be published ahead of this date.
- 1.65. This consultation did not set out any proposals relating to tariffs or degression for anaerobic digestion (AD) and micro-combined heat and power (micro-CHP) technologies. Therefore, in early 2016 DECC intends to launch a separate consultation covering those topics. It is also intended to revisit the topic of sustainability criteria for AD plant, setting out more detailed proposals than those outlined in this consultation.
- 1.66. Government is not re-focusing the eligibility of the scheme at this time. However, it is important to ensure that these changes provide the best possible value for bill payers following their implementation. Government will therefore review eligibility and the balance of caps between technologies next year. Government will also consider whether there are grounds for reviewing the proposed tariffs following implementation of these changes. This will take account of factors including deployment levels, broader policy objectives, State Aid constraints and value for money. Government will issue an update on this in the first quarter of 2016.

# Analysis of responses to the consultation

## 1. Securing Better Value for Money

1.1. Questions 1 and 2 asked for views on whether the proposed new FITs tariffs and the assumptions used to calculate them were appropriate. As the assumptions are used to set the tariffs, analysis of each question is set out below followed by a combined Government decision.

### Question 1 – Generation tariffs

Consultation question	2557 unique responses
Q1	Do you agree or disagree with the proposed generation tariff rates set out above? Please provide reasons to support your answer.

### Summary of responses

- 1.2. Government sought views on the proposed generation tariffs published in the consultation document. This was the most widely answered question in the consultation, with 2,557 unique responses. Many respondents used this question to also state their broader views on the review and consultation. Respondents were representative of all groups responding to the consultation, with significant numbers from both the public and the renewable energy industry.
- 1.3. The majority of responses, nearly 90%, disagreed with the proposed generation tariffs, stating in general that the proposed tariffs were too low to bring forward new generation. Of the remaining respondents just over 5% neither agreed nor disagreed with the proposal, and a slightly smaller number of respondents believed that the proposed tariff rates were appropriate.

### Agreement with proposal

- 1.4. The most common reason given for agreeing with the tariffs was in support of the need to control the costs of the scheme. Respondents also raised the impact of widespread intermittent generation on the grid and potential market

distortions which would result from a higher level of deployment in the absence of cost controls.

### **Disagreement with proposal**

- 1.5. The majority of those in disagreement with the proposed tariffs focused on target rates of return. Any responses that referred to the full range of hurdle rates instead were considered in the analysis of responses to question 2.
- 1.6. Although very few respondents considered that the proposed target rate of return for hydro was appropriate, the majority of respondents who commented on the target rates of return considered that they were too low.
- 1.7. Three arguments were most commonly quoted: cost of capital, opportunity cost, and a lack of evidence for current rates of return being excessive. These arguments were then often accompanied by the view that even if the proposed target rates of return were appropriate, they would be impossible to achieve with the proposed tariffs for the majority of projects due to DECC's other assumptions on technology costs.
- 1.8. Some respondents noted that the proposed target rates of return are below WACC ("Weighted Average Cost of Capital") of small to medium-sized commercial investors. This they believed would make investment impossible, particularly in the solar and wind technologies. Other related arguments focused on the fact that pre-construction funding requires higher return than the eventual institutional owners of the assets. Respondents also flagged that other, more liquid investment opportunities were available to individuals at similar rates but allowing them to recover their initial capital over much shorter periods. In their view, this makes investment in domestic-scale installations particularly unattractive. Some respondents also argued – especially in the solar sector – the fact that depression rates had generally remained quite low showed that current returns offered by the scheme were not excessive. Some respondents believed, however, that solar installations at this scale could potentially deploy without subsidy.
- 1.9. Several responses disagreed with the tariff bands. In particular there was concern about the <10kW band for PV as respondents felt that these installations were not domestic, principally because the size of roof space required for a 10kW installation would be larger than the typical household. In addition, some respondents wanted an additional wind band of 50-100kW, and for hydro a <15kW band.
- 1.10. Several responses disagreed with the valuation of bill savings which contribute to the tariffs. They argued that only the variable element of the electricity bill is saved.
- 1.11. Many responses also disagreed with setting the tariffs based on a solar load factor of 11.3%. The main reason for this was that respondents felt it was not achievable in the majority of places in Great Britain.
- 1.12. In addition to the individual responses, a number of respondents both in unique responses and as part of the campaigns referenced a number of reports published during the consultation period. The most commonly

referenced came from the British Hydro Association (BHA), Renewable UK, the Solar Trade Association (STA) and a report by Good Energy.

#### *British Hydro Association (BHA)*

- 1.13. BHA suggested that generation tariffs for hydro should be significantly higher than those proposed in the consultation. In order to deliver a 9% rate of return, the BHA analysis suggested tariffs ranging from 26p/kWh to 8p/kWh across different bands. These findings were based on a survey the BHA conducted among its members and the analysis carried out by Pöyry to identify the required tariff for a “typical project”. Pöyry’s tariffs are higher because of higher project costs reported in the BHA survey, partly due to the inclusion of additional project costs that need to be recovered to make a project viable. The report suggested that at DECC’s proposed tariffs some projects would be viable, however, these are projects on the margin rather than a typical project.

#### *Renewable UK*

- 1.14. Renewable UK believed that the proposed generation tariffs for wind would fail to reflect the full costs of projects and would be insufficient to attract suitable investments into the sector. Particular concerns related to the larger wind band for projects larger than 1.5MW, where the proposed tariff in the consultation was zero; as well as proposed merging of bands resulting in 50-100kW projects potentially competing with much larger projects. A range of tariffs between 6p/kWh to 11p/kWh across bands were suggested to avoid contraction in the wind energy supply chain, and were based on discussion with its members.

#### *Solar Trade Association (STA)*

- 1.15. The STA disagreed with DECC’s proposed tariffs for solar PV, suggesting they were too low across all bands to incentivise deployment. Their response suggested tariffs should be in the range of 4p/kWh to 8p/kWh across different bands. The STA also disagreed with many of the underlying assumptions used to calculate the tariffs including the target rate of return, the load factor, the value of bill savings and the inclusion of the export tariff for years 21-30.
- 1.16. The major criticism brought forward by the STA was the target rate of return on which the proposed tariffs were based. The STA believed that a target 4% rate of return would not bring forward deployment from financially motivated customers, who would be seeking higher returns elsewhere. In addition, it suggested that setting a low hurdle rate for householders effectively excludes anyone that does not have the cash readily available, including the fuel poor and those on lower income.
- 1.17. The STA also believed that load factors should be lower and not based on returns from installations in the South-West, as this method rules out anything outside the highest insolation regions. It also suggested load factors should take into account panel degradation, i.e. loss of panel efficiency over time. The STA believed that export payments as well as bill savings should be lower to recognise respectively the uncertainty of revenue

after the lifetime of the FITs, and the standing charge of retail prices faced by FITs generators.

### Good Energy

- 1.18. Good Energy highlighted the contribution that wind and solar play in driving down consumer bills. According to their estimation, wind and solar reduced the wholesale cost of electricity by £1.55 billion in 2014. The analysis suggests that renewable support should be calculated in ‘net’ terms. Subsidy schemes supporting renewable generation are paid for through consumer bills; however the report suggests that renewables also decrease bills by reducing the wholesale cost of electricity. When this is factored in, the report suggested that the net cost of supporting these schemes in 2014 could be reduced by 58%.

### Question 2 - Assumptions

Consultation question	2086 unique responses
Q2	Do you agree or disagree that the updated assumptions produced by WSP Parsons Brinckerhoff (PB) are reflective of the current costs of deployment for UK projects in your sector? If you disagree, please set out how they differ and provide documented evidence, such as invoices and/or contractual agreements to support this evidence. Please also mark this evidence as commercially sensitive where appropriate.

### Summary of responses

- 1.19. Government sought views on the accuracy of the updated technology cost assumptions, produced by PB and published alongside the consultation document. There were 2,086 unique responses to this question. The majority of these answered that they neither agreed nor disagreed with the assumptions; just over 30% of respondents disagreed with PB’s updated assumptions, with only approximately 3% of respondents stating they agreed with the cost data. The responses which disagreed with the updated assumptions generally stated that the costs provided were too low.
- 1.20. A number of respondents who disagreed with the data provided their own evidence to counter its assumptions, and where possible this has been used in DECC’s updated analysis. The majority of respondents, however, did not provide documented evidence.

### Agreement with proposal

- 1.21. Respondents who agreed with the proposal generally stated that the PB assumptions seemed reasonable and in line with their own view of the sector. The most common technology cited was solar PV, but respondents also agreed with assumptions for wind and anaerobic digestion. Some respondents qualified their agreement here with the caveat that they did not support policy proposals elsewhere in the consultation.

## **Disagreement with proposal**

- 1.22. Many responses again reiterated disagreement with setting the solar tariffs based on a solar load factor of 11.3%. The main reason for this was that respondents felt it was not achievable in the majority of places in Great Britain. In addition many respondents suggested that DECC should also include panel degradation in the solar load factor.
- 1.23. Many responses disagreed with the export fraction for the 0-10kW solar band. They suggested that it should be greater than 53%.
- 1.24. Many responses argued that the capital expenditure estimates were too low. In particular many responses suggested that capex and opex should include: land costs; development costs including environmental surveys; planning and licence applications (included as capex costs); additional overheads including insurance costs; licence charges; monitoring fees; fish surveys; bank charges; audit and accountancy fees; property and business rates and tax.
- 1.25. The majority of respondents who commented on hurdle rates felt that the ranges recommended by PB and Ricardo Energy & Environment were too low. Firstly, many respondents felt that the PB numbers didn't take financing or borrowing costs into consideration; and that as a result they wouldn't reflect the hurdle rates of investors who had to raise external funds for their projects. Tax and corporate status of some investors was also raised, as a factor limiting their ability to monetise benefits. Secondly, many respondents considered that domestic-scale installations would require higher rates of return to stimulate consumers to adopt energy saving technologies. Finally, some respondents argued that the ranges failed to take into consideration certain risks resulting from the proposed policy changes. Several respondents made the point that should the decision be made to change the indexation of tariffs from RPI to CPI, hurdle rates would have to be adjusted accordingly (question 6 sets out further consideration on indexation). Others commented that the PB report based hurdle rate levels on survey responses which related to the previous FITs regime, but that the industry would require higher rates of return should there be more uncertainty or volatility in tariffs (e.g. due to the introduction of caps or more frequent depression).

## **Quantitative evidence**

- 1.26. Around 100 respondents to the consultation supplied usable and evidenced data through the consultation in the form of receipts, company invoices, or other official documents.
- 1.27. The evidence submitted generated around 8,800 new data points to inform capital expenditure of solar PV, wind and hydro, which was added to the data provided by PB to increase the Department's evidence base. Evidence on operational expenditure was very limited, with the exception of hydro.



1.28. Due to the commercially sensitive nature of hurdle rates, the feedback received on this topic through consultation responses was mostly qualitative; however some respondents also provided quantitative comments and / or evidence such as project finance models. Wherever sufficient information was provided, the quantitative comments received were converted into data points which were then added to the dataset initially gathered and analysed by PB and Ricardo Energy & Environment, thus leading to revised assumptions. The various steps of the analysis are described in further detail in the accompanying Impact Assessment.

## Government decision

1.29. A large proportion of the comments disagreeing on hurdle rate assumptions were due to a lack of understanding of the definitions used by DECC. For example, DECC considers returns at the level of project cash flows in order to reflect the hurdle rate required by all of the project funders combined, thus taking finance costs into account but there was also an element of confusion in responses about the difference between pre-tax real hurdle rates – which are used in the DECC methodology – and post-tax nominal hurdle rates – which are more commonly used in the industry. Annex A of the Impact Assessment provides more information on the analysis that was performed on hurdle rates to address the main areas of confusion highlighted by consultation responses.

1.30. A number of responses to these questions focussed on how targeted returns would not be consistent with those required by commercial enterprises. Government was clear at consultation that the FITs scheme is aimed at non-energy professionals and returns should reflect what those groups are willing to accept. As a result, DECC has decided not to amend the methodology used to determine the target rates of return and which consists of targeting the low end of the intersection between the domestic and commercial<sup>9</sup> hurdle rate ranges<sup>10</sup>. The new target rates of return are however now based on the revised hurdle rate ranges which incorporate the new information received through the consultation; they have therefore increased respectively from 4% to 4.8% for solar, from 5% to 5.9% for wind and from 9% to 9.2% for hydro. For the full hurdle rate ranges, please see the accompanying Impact Assessment.

1.31. DECC recognises that the revised hurdle rate ranges may not fully reflect the risks resulting from the changes to the FITs policy, in particular the introduction of caps. Rather than addressing this new uncertainty through an arbitrary premium on hurdle rate assumptions, which would increase tariffs and therefore limit the deployment that can be afforded under the cap while

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<sup>9</sup> As explained in the Impact Assessment, the “commercial” category of investors refers to small and medium businesses that are not energy professionals (e.g. businesses which own offices or factories and which choose to develop renewable electricity installations on their sites).

<sup>10</sup> Set out in paragraph 5.14 of the August 2015 Impact Assessment:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/458662/IA\\_for\\_FITs\\_consultation\\_August\\_2015\\_-\\_FINAL\\_docx\\_e-signature\\_included\\_v2.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/458662/IA_for_FITs_consultation_August_2015_-_FINAL_docx_e-signature_included_v2.pdf)

worsening value for money, DECC has decided to mitigate it by amending the policy design itself. Pre-accreditation is therefore re-introduced to all qualifying projects. Where introducing pre-accreditation was not possible (wind and solar projects <50kW, which did not benefit from pre-accreditation in the first place), the allocation risk is reduced instead through adjusting the budget cap to cover the full projected unconstrained deployment. For details on caps and pre-accreditation, see Chapter 2 on cost control and the accompanying Impact Assessment.

- 1.32. A 50-100kW tariff band for wind is being introduced. This reflects information received setting out that this wind band uses different technology to the other wind installations within the 50-1,500kW band that was proposed in the consultation. All other tariff bands remain as per the consultation proposal.
- 1.33. Tariffs for the <10kW solar tariff band have been set using only the variable element of the electricity price, excluding the standing charge, as it is on this part of the electricity bill that savings can be made. As the average standing charge for electricity was 12% in 2014,<sup>11</sup> Government has assumed that 88% of the retail electricity price is variable and has set the tariff for this band accordingly.
- 1.34. Tariffs for all other solar bands, and hydro and wind, have been set using the total electricity price. This is because there is insufficient information available on the variable percentage of the price for non-householders.
- 1.35. The tables 4, 5 and 6 below give new assumptions used for tariff setting. More evidence behind these new assumptions is outlined in the Impact Assessment.

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<sup>11</sup> This is based on a fixed consumption of 3,800kWh and data tables published at: <https://www.gov.uk/government/statistical-data-sets/annual-domestic-energy-price-statistics>

Table 4 – Solar PV assumptions

Solar PV (2016 prices)	Target Rate of Return	Capex (including Grid Connection) (£/kW)	Opex (£/kW)	Load Factor	Export fraction	On-site use fraction
<10kW	4.8%	£1,630	£20	10.8%	50% <sup>12</sup>	45%
10-50kW	4.8%	£1,770	£10	10.8%	50%	50%
50-250kW	4.8%	£1,550	£10	10.8%	50%	50%
250-1000kW	4.8%	£1,480	£10	10.8%	50%	50%
>1000kW	4.8%	£1,310	£10	10.8%	50%	50%
Standalone	4.8%	£1,310	£10	10.8%	100%	0%

Table 5 – Wind assumptions

Wind (2016 prices)	Target Rate of Return	Capex (including Grid Connection) (£/kW)	Opex (£/kW)	Load Factor	Export fraction	On-site use fraction
<50kW	5.9%	£4,360	£30	26%	50%	50%
50-100kW	5.9%	£4,350	£30	26%	75%	25%
100-1500kW	5.9%	£2,700	£60	29%	85%	15%
>1500kW	5.9%	£1,680	£20	32%	100%	0%

Table 6 – Hydro assumptions

Hydro (2016 prices)	Target Rate of Return	Capex (including Grid Connection) (£/kW)	Opex (£/kW)	Load Factor	Export fraction	On-site use fraction
<100kW	9.2%	£6,910	£80	60%	75%	25%
100-500kW	9.2%	£4,640	£40	50%	88%	12%
500-2000kW	9.2%	£3,780	£20	40%	99%	1%
>2000kW	9.2%	£3,730	£20	40%	99%	1%

1.36. Table 7 shows final tariffs in light of these updated assumptions:

<sup>12</sup> Assumed to be 50% because the majority of installations at this scale do not install an export meter and opt for the “deemed” export tariff of 50% of generation.

Table 7 – New Generation Tariffs

Tariffs (p/kWh)	Installed capacity	Consultation tariffs	New tariffs
PV	<10kW	1.63	<b>4.39</b>
	10 - 50kW	3.69	<b>4.59</b>
	50 - 250kW	2.64	<b>2.70</b>
	250-1000kW	2.28	<b>2.27</b>
	> 1000kW	1.03	<b>0.87</b>
	Stand alone	1.03	<b>0.87</b>
Wind	<50kW	8.61	<b>8.54</b>
	50-100kW	4.52	<b>8.54</b>
	100–1500kW	4.52	<b>5.46</b>
	>1500kW	0.00	<b>0.86</b>
Hydro	<100kW	10.66	<b>8.54</b>
	100-500 kW	9.78	<b>6.14</b>
	500-2000kW	6.56	<b>6.14</b>
	>2000kW	2.18	<b>4.43</b>

### Question 3 – Default Degression

Consultation question		2038 unique responses
Q3	Do you consider the proposed default degression pathways fairly reflect future cost and bill savings assumptions in your sector? Please provide your reasoning, supported by appropriate evidence where possible.	

### Summary of responses

1.37. Government sought views on the proposed default degression timescales and the assumed technology cost reductions over the remaining lifetime of the scheme. There were 2,038 unique responses to this question. Of these, nearly 60% of respondents stated that they did not know whether default degression pathways fairly reflected future cost and bill savings assumptions. A small number, approximately 3% agreed with the proposition in the consultation with the remaining 37% disagreeing. Those responses which disagreed with the question generally stated that the cost and bill savings assumptions presented were overly optimistic and would not be realised in the given timeframes.

### Agreement with proposal

1.38. Respondents who agreed stated that the trajectory of cost reductions set out in the PB report seemed reasonable. Several respondents agreeing with this question stated that they agreed with the proposed cost reduction increments, but not the initial tariff proposed. Respondents in the hydro sector agreed with PB's view of the potential for cost reductions.

## **Disagreement with proposal**

- 1.39. The majority of respondents in disagreement with proposals on default degression centred on the capex forecasts. Many responses highlighted that potential VAT changes, exchange rate movement with the euro and US dollar and the European Commission rules on the Minimum Import Price (MIP) will all have an impact on capex costs in the future. Since the consultation closed, the EU Commission have announced an expiry review into the MIP which is expected to conclude in 2017. HMRC have also launched a consultation on removing VAT relief on solar panels. The outcome and implementation of these proposals are currently unclear and therefore are not captured in the Government decision.
- 1.40. In addition some respondents incorrectly interpreted degression to be the reduction in tariff proposed in the review, and reverted to their arguments summarised in question 1. However, DECC believes that degression was clearly differentiated in the consultation document as the mechanism to reduce tariffs in line with the falling costs in deployment.

## **Government decision**

- 1.41. As there was limited robust evidence submitted on capex forecasts the percentage changes over time have not been changed from those proposed at consultation. Table 8 shows the default degression over time, in the absence of contingent degression.

Table 8 – Default depression in the absence of contingent depression and RPI changes

2016 prices p/kWh	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019
<b>Solar PV</b>													
<10kW	4.39	4.32	4.25	4.18	4.11	4.04	3.97	3.90	3.83	3.76	3.69	3.62	3.55
10 - 50kW	4.59	4.53	4.46	4.39	4.32	4.25	4.19	4.12	4.05	3.98	3.91	3.85	3.78
50 - 250kW	2.70	2.64	2.58	2.51	2.45	2.39	2.33	2.27	2.20	2.14	2.08	2.02	1.96
250- 1000kW	2.27	2.21	2.15	2.09	2.03	1.97	1.91	1.85	1.78	1.72	1.66	1.60	1.54
1000- 5000kW	0.87	0.82	0.76	0.70	0.64	0.58	0.52	0.46	0.41	0.35	0.29	0.23	0.17
Stand alone	0.87	0.82	0.76	0.70	0.64	0.58	0.52	0.46	0.41	0.35	0.29	0.23	0.17
<b>Hydro</b>													
<100kW	8.54	8.53	8.51	8.50	8.48	8.46	8.45	8.43	8.42	8.40	8.39	8.37	8.35
100 - 500 kW	6.14	6.14	6.13	6.12	6.11	6.11	6.10	6.09	6.09	6.08	6.07	6.06	6.06
500 - 2000 kW	6.14	6.14	6.13	6.12	6.11	6.11	6.10	6.09	6.09	6.08	6.07	6.06	6.06
2000 - 5000 kW	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43
<b>Wind</b>													
0 - 50kW	8.53	8.46	8.39	8.33	8.26	8.19	8.13	8.06	7.99	7.93	7.86	7.79	7.73
50 - 100 kW	8.53	8.46	8.39	8.33	8.26	8.19	8.13	8.06	7.99	7.93	7.86	7.79	7.73
100 - 1500 kW	5.46	5.43	5.40	5.37	5.34	5.32	5.29	5.26	5.23	5.20	5.17	5.14	5.12
1500 - 5000 kW	0.86	0.85	0.84	0.83	0.82	0.81	0.79	0.78	0.77	0.76	0.75	0.74	0.73

1.42. These tariffs are subject to adjustment firstly at the end of each FITs year to reflect the RPI change and secondly if and when the cap is hit and a contingent depression of 10% occurs (see question 4). Updated tariffs, reflecting any contingent depression, will be published by Ofgem at least on a quarterly basis along with information on quarterly caps.

#### Question 4 – Contingent Depression

Consultation question	1976 unique responses
Q4	Do you consider it appropriate to harmonise the triggers for contingent depression across all technologies, and do you consider the proposed triggers will ensure tariffs reflect falling deployment costs? Please provide your reasoning, supported by appropriate evidence where possible.

## Summary of responses

- 1.43. Government sought views on the proposal to harmonise triggers for contingent depression across technologies. There were 1,976 unique responses to this question, of which approximately only 5% agreed with the proposition in the question, just over a third disagreed with the proposal and the remainder stated that they did not know whether it was appropriate or not to harmonise triggers for contingent depression.
- 1.44. The respondents who disagreed generally felt that this change would not be appropriate as the costs of different technologies would naturally fall at different rates.

## Agreement with proposal

- 1.45. Respondents who agreed with this question supported the idea that contingent depression triggers should be harmonised and that this would reflect falling deployment costs. A number of respondents believed that fossil fuels and nuclear as technologies were in receipt of comparable support which should also be reduced, although these technologies were out of scope for this consultation on the FITs scheme. Some respondents in agreement believed that the proposed starting point for tariffs was too low, and that caps were also set too low to incentivise deployment. Several respondents stated that while it was reasonable to harmonise triggers across technologies, an exception should be made for community energy projects because it was suggested community projects are not able to factor in rapid depression into their business models.

## Disagreement with proposal

- 1.46. Some respondents disagreed with the proposal to harmonise contingent depression rates as they felt that costs will fall across different types and scales of technology, particularly for hydro. This would result in a different level of deployment across different types and scales of technology. Therefore a 10% depression might be too much (or too little) depending on each specific case.
- 1.47. Some respondents disagreed that contingent depression could be used in the absence of pre-accreditation, as projects need to know the tariff they'll receive at the start of the project for investment decisions.

## Government decision

- 1.48. Contingent depression will be 10% each quarter on all future tariffs if deployment meets the quarterly deployment cap. Although Government recognises that sudden changes in the cost of deployment may not correspond exactly to a 10% fall in generation tariffs, the system it replaces was often cited as being overly complex and did not provide sufficient clarity on future support levels for those considering investment. A single contingent depression, at the level of the cap, reduces complexity for

generators and for the administrator and can provide value to the bill payer if investment is acceptable with a lower level of support.

- 1.49. Government will monitor the level of contingent depression and may consider changing it, subject to future levels of deployment or a sudden change in the cost of deployment.

Depression bands will correspond with bands for caps, as set out in table 9 below.

Table 9 – Cap and depression bands

Technology	Depression band
PV	<10kW
	10-50kW
	50kW-5000kW
	Standalone
Wind	0-50kW
	50-100kW
	100-1500kW
	1500-5000kW
Hydro	0-100kW
	100-5000kW
AD	All

### Question 5 – Export Tariff

Consultation question	957 unique responses
Q5	Which of the options for changing the export tariff outlined above would best incentivise renewable electricity deployment while controlling costs and enabling the development of the PPA market? How should we account for the additional and avoided costs to suppliers associated with exports in setting the export tariff? Please provide reasons to support your answer.

### Summary of responses

- 1.50. Government sought views on a variety of longer-term measures to ensure the export tariff is sustainable. Responses to this question were received from 36.5% of respondents, with the majority coming from the renewables industry and private individuals. Of the options proposed, there was only very limited support for re-basing the export tariff at a lower level, some limited support for withdrawing the right for >50kW installations to opt for the export tariff, and moderate support for an annual re-set of the export tariff to a wholesale power price index. However, the most frequently occurring response was for the current system to remain in place because those considering installation of FIT-scale technologies highly valued the certainty of a fixed tariff at a level sufficiently high to incentivise investment.



## Options for changing the export tariff

- 1.51. Where respondents supported re-basing the export tariff to a lower level, this was often because respondents favoured a lower fixed rate tariff rather than a potentially higher but fluctuating tariff, as this provided greater certainty to investors, reducing financing costs. Other respondents felt that a lower export tariff could help to incentivise behaviour viewed as desirable for the purposes of alleviating grid constraints, such as self-consumption or the installation of storage.
- 1.52. Respondents who supported withdrawing the right for >50kW installations to opt for the export tariff felt that generators of this scale could participate effectively in the power purchase agreement (PPA) market. Some respondents suggested alternate thresholds for the right to opt for the export tariff to be withdrawn, for example 30kW, 100kW, 1MW or 1.5MW. However, a larger proportion of respondents stated that smaller generators and community projects would not be able to effectively participate in the PPA market.
- 1.53. A limited number of respondents supported removing the right to opt for the export tariff for all installations and requiring all installations to participate in the PPA market; some respondents noted that this would require reform of the PPA market to allow domestic generators and community projects to participate effectively on an individual basis or at an aggregated level. The main reason given for this proposal was that PPAs more accurately reflect the value of exports according to locational, time of day or seasonal factors than the export tariff itself.
- 1.54. The proposal to annually re-set the export tariff to a wholesale power price index was supported by respondents who felt that this would more accurately reflect the value of these exports at the time they were generated. Some respondents suggested a more frequent re-set, for example on a quarterly or six-monthly basis.
- 1.55. Although a number of individual specific proposals were put forward, more generally, there was broad support for a move to meter all exports, though there were some technical concerns and concerns around privacy raised. There was also broad agreement that any changes should apply to future generators only. However some respondents, particularly small suppliers, preferred that the changes should apply to all generators.
- 1.56. Some small suppliers in particular highlighted concerns about the wholesale price falling below the export tariff for both new and existing installations. A key concern was that suppliers may be reluctant to offer PPAs if the financial loss to the supplier could be significant, which would in turn cause damage to the PPA market. A solution was suggested of including supplier export tariff payments in the levelisation fund by reversing the removal of the Secretary of State's discretion to include export payments in levelisation fund that was introduced in the FITs Order 2013. This could include applying the changes to all generators rather than future generators only. Alternatively, rather than including such supplier export costs in the levelisation fund, it was suggested that these be refunded to suppliers from general taxation.

- 1.57. Some respondents questioned whether the wholesale power price was an appropriate proxy for the value of exports. The reasons given were that a fixed and flat rate export tariff does not reflect factors such as local grid constraints, time or season of exports, or wholesale price changes; all of which contribute to the value of the exports at that particular time or location. A number of alternative indexes were proposed, for example against clean energy PPA contracts or the SSP (system sell price, potentially average time weighted). It was also suggested that different tariffs and methodologies should be adopted depending on whether a project was standalone or connected directly to a source of demand.
- 1.58. A few respondents questioned how FITs generators could be provided with a route to market once the export tariff expires after 20 years. It was felt that without such a route generators may remove equipment that is still functioning and capable of exporting electricity; solutions suggested including the export tariff portion indefinitely or increasing the export tariff portion to 30 years. In the shorter term, some respondents also stated that it would be helpful to have certainty now regarding the status of the export tariff once the cap has been used up in order to inform investment decisions that will be taken shortly.

### Government decision

- 1.59. As set out in the consultation document, Government is not proposing to make any change to the export tariff at this stage. However, Government notes the concerns made by some small suppliers and considers the export tariff is in need of reform in order to ensure it is sustainable and to ensure there is clarity over its long-term future. The responses to this question will be used to frame a detailed consultation on these issues in future.

### Question 6 – Indexation

Consultation question	1899 unique responses
Q6	Do you agree or disagree with the proposed changes to the indexation link under the FITs scheme? Please provide reasons to support your answer.

### Summary of responses

- 1.60. We sought views on changing the Retail Price Index (RPI) link for generation and export tariffs to a Consumer Price Index (CPI) link for new installations. There were 1899 unique responses to this question; of these 7% agreed with the proposed changes, approximately 34% disagreed, and 59% neither agreed nor disagreed.

### Agreement with proposal

- 1.61. Some of those in favour of the proposal agreed with the Institute for Fiscal Studies (IFS) that CPI was a more appropriate index than RPI, which it suggested is a less robust measure of inflation in the economy. Others felt

that because individual generators would not notice significant reductions in rates of return, if a move to a lower index allowed a greater number of installations to receive a tariff, this was a positive move.

### **Disagreement with proposal**

- 1.62. The principle reason for disagreement with the proposal was that RPI was seen as a better measure of changes to the cost of living and project financing (notably mortgage costs for when land was purchased or loans for upfront installation costs) therefore more relevant in the context of the financing of FITs installations. Another frequently cited reason for disagreement with the proposal was a perception that DECC was making the change purely to reduce the overall returns generators receive over time.
- 1.63. The May 2012 government response to the Phase 2A FITs Review consultation was cited by a number of respondents, with the view that the decision not to change from RPI to CPI at that point should also be applied to the current consultation. Some respondents suggested alternative indexes, for example the wholesale electricity price, CPIH, or equipment and maintenance costs. Some respondents also expressed the view that tariffs were so low that there was no appreciable difference between the RPI and CPI indexes.
- 1.64. Some respondents requested that community projects or domestic installations receive an exemption against the move from RPI to CPI. Others requested an exemption for hydro projects as financing costs were strongly linked to RPI, or an exemption for AD projects because AD project operating costs were more linked to RPI (for example, labour, machinery, digestate spreading, waste disposal and electricity costs). Government notes that applying the proposed change to only some of the technologies included in the FITs scheme would be difficult to justify in light of EU State Aid approval for the scheme. Some respondents, particularly small suppliers, requested that the change be applied to all generators rather than only future generators; given the retrospective effect of this application, DECC does not consider such an action lawful. Some respondents stated that different indexation methodologies across different subsidy schemes made it more difficult to compare them; DECC notes that the CfD scheme is indexed against the CPI.

### **Government decision**

- 1.65. DECC notes the objections to this proposal and the evidence provided by respondents, in particular the comments provided around the fact that hurdle rates, and therefore tariffs, would have to increase should indexation be changed from RPI to CPI. This could lead to fewer FITs installations being able to deploy within caps.
- 1.66. Government therefore does not intend to take forward this proposal within the FITs scheme because the impact is relatively marginal. Because the CPI tends to increase more slowly than the RPI, the change would have

had the effect of increasing initial levels to maintain returns consistent with the hurdle rates, but increasing the tariffs more slowly over time. Government has therefore decided to retain the RPI link for generation and export tariffs for all FITs installations.

- 1.67. However, as noted in the analysis to question 4, Government may make changes to the structure of the export tariff in the future for new entrants to the scheme and that may include changes to indexation.

## Question 7 – New Technologies

Consultation question	1933 unique responses
Q7	Do you agree or disagree with the proposal not to include any additional technologies in the FITs scheme? Please provide reasons for your response.

### Summary of responses

- 1.68. There were 1,933 unique responses to this question from a wide range of respondents including members of the public, trade associations, renewables companies, community groups, NGOs, local authorities and academia. Of the unique responses, approximately 12% agreed with the proposal not to include any additional technologies, 39% disagreed, and 49% neither agreed nor disagreed. The most popular technologies suggested for inclusion were wave and tidal stream, and storage, e.g. battery storage in combination with domestic solar PV.

### Agreement with proposal

- 1.69. Of those who commented on the proposal, the most commonly held view amongst individuals and industry was that, because of the budgetary constraints, the scheme should only support the existing technologies now, e.g. those that were on course to grid parity, but that it should be kept open for future review. Another significant group comprising individuals, renewable companies and local groups felt that there was no point extending the scheme to new technologies as it would dilute the funding available to those more mature technologies already included. Some groups thought that adding new technologies would require State Aid approval and that could jeopardise the whole scheme. Others, mostly companies and academics, thought that an alternative funding mechanism should be made available for innovative technologies, such as wave and tidal, storage with solar PV and geothermal.
- 1.70. A sub group of individuals, industry and environmental groups said they were not aware of any new commercial technologies at present, but Government should keep the scheme open and consider including others on a case-by-case basis. Others, particularly solar companies and community groups, agreed with the proposal, and went a step further by suggesting that the FITs scheme should only support solar PV, and especially in community

projects. A few individual responses suggested that, based on deployment to date, micro-CHP should be removed from the scheme on value for money grounds. Others from the industry thought it should be kept in, but with an increased maximum capacity size and aggregated in multiple housing blocks.

## **Disagreement with proposal**

- 1.71. The majority of individuals, industry and local and environmental groups who disagreed with the proposal said that the scheme should support innovative and diverse sources, provided they generated electricity efficiently and at scale, and not at excessive cost. Respondents believed Government needed to be open and flexible, to account for future technological developments. They claimed that transformational technologies, like storage, could revolutionise the energy market, and bring benefits to suppliers, consumers, and industry. Further arguments were that low carbon technology development would be beneficial to the economy, energy security, employment, and the environment through combatting climate change. A few individuals felt strongly that to do otherwise would be short-sighted and anti-competitive.
- 1.72. A considerable number of respondents, especially individuals, thought that renewable technologies should be supported across their full range, so as to reduce reliance on fossil fuels and help the UK meet its carbon targets. Some considered that the FITs budget should be increased to accommodate this, rather than spending money on new nuclear or shale gas. As with those who agreed with the proposal, a fair proportion of those who disagreed felt that, if FITs was not the right support mechanism, then a new incentive scheme needed to be established to bring forward new technologies such as marine, geothermal, and biomass CHP.
- 1.73. The reasons given by industry, individuals and local community groups for supporting wave and tidal stream technologies were: Great Britain's indigenous resource, that they provided opportunities for remote communities on islands and coasts by supplying electricity and employment, and thus prospects for regeneration. Some suggested that such support would also build on the UK's lead in this sector, which could result in increased export opportunities.
- 1.74. Proponents of battery storage, with or without solar PV, argued that this was a transformative technology, which could lead to long-term benefits for the economy, security of supply, grid balancing and reduce the need for back-up generation. However, some conceded that FITs might not be the appropriate mechanism to support storage. Alternative incentives suggested included one-off subsidy payments, Enhanced Capital Allowances or tax breaks.

- 1.75. Other technologies that were mentioned included geothermal/hot rocks, fuel cell CHP\*<sup>13</sup>, hybrid solar PVT\*, innovative electric/heat networks, smart grids, high-efficiency micro-CHP\*, Building-Integrated PV\*, floating solar PV\* and biomass gasification. However, none of these ideas had many supporters so it could not be said that a strong case was made for their inclusion.

### **Neither agreed nor disagreed**

- 1.76. Nearly half of those who responded to this question did not express an opinion either way. In many cases their comments were similar to those who agreed or disagreed with the proposal. However, there were some exceptions. Some felt that access to limited funding was a strong case to focus support on existing technologies rather than introducing new and competing possible scheme beneficiaries and they believed that the Government intended to phase the scheme out anyway. Others thought Government should be looking at an alternative support mechanism to succeed FITs, or some more radical form of incentive. Still more thought it should be left to the open market, and that renewables should receive no subsidy, but be left to deploy on their own merits.

### **Government decision**

- 1.77. The FITs scheme was designed to support the widespread deployment of proven technologies that can be realistically and effectively deployed at scale in the short term, rather than to support unproven technologies.
- 1.78. Government recognises that a significant proportion of respondents did not agree with the proposal, but it is not persuaded that there is a strong case for inclusion of any new technologies at this stage, especially given the constrained budget going forward. The two technology areas that received most support were marine energy and energy storage.
- 1.79. For wave and tidal stream, it is felt that the prototype development stage and scaling-up demonstration stage could best be supported through innovation funding. For large-scale deployment, projects could apply for Contracts for Difference, if they can make a case for inclusion, rather than small-scale FITs.
- 1.80. Government is supportive of cost effective energy storage at all scales and using all technologies. Government recognises the potential system benefits of storage deployed in combination with intermittent renewables. However, it does not consider that FITs is the appropriate mechanism for providing support for energy storage. DECC is currently engaging closely with Ofgem and stakeholders to identify barriers to the deployment of storage and are considering potential remedial actions. Government plans to consult on this work in spring 2016.

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<sup>13</sup> Technologies marked with a \* are already eligible for FITs, provided the product has gained MCS certification and carries a warranty.

1.81. In conclusion, Government does not propose to include any additional technologies at this stage, but to review again at a later stage.

## 2. Cost Control measures

### Deployment caps

2.1. Questions 8 to 10 of the consultation sought views on the proposal to introduce deployment caps to control expenditure under FITs; the proposed design of these caps; and options for implementing a system of caps.

### Question 8 – Deployment Caps

Consultation question	1956 unique responses
Q8	Do you agree or disagree with the proposal to introduce deployment caps under the FITs scheme? Please provide your reasoning.

### Summary of responses

2.2. There were 1956 unique responses to this question from a wide range of respondents including members of the public, community groups, trade associations, renewable energy companies, licenced electricity suppliers, NGOs, public bodies and academia. Of the unique responses, around 7% agreed with the proposed introduction of deployment caps, 52% disagreed, and 41% neither agreed nor disagreed.

### Agreement with proposal

2.3. The most commonly cited reasons from those agreeing with the proposals surrounded the budgetary control that the introduction of caps would provide, keeping the FITs scheme's costs under control and protecting consumer energy bills. A couple of respondents also commented on the certainty and stabilising effect of caps compared to the prospect of frequent reviews.

2.4. The second most common comment accepted the principle of caps but argued that the proposed level of the cap was too low and should be increased. A couple of responses from the renewables industry also asked that the LCF be increased.

2.5. The majority of other comments provided by those who agreed with the proposal suggested various ways in which the proposals on caps could be improved. These suggestions included making special provision for particular types and scales of technology; alternative ways of measuring a cap and requests for transparency in implementation. These are similar to suggestions made in responses to questions 9 and 10 of the consultation, which deal with the proposed design of the caps and the proposed approach to implementation. Further detail on these is provided in the analysis of those questions in paragraphs 2.18 to 2.79 below.



## Disagreement with proposal

- 2.6. Just over half of respondents to this question disagreed with the proposal to introduce deployment caps. Over 350 respondents, representing nearly the full range of respondent types that responded to the consultation, stated their opposition to the principle of capping FITs. The main reason provided was that renewables deployment should not be constrained, particularly in the perceived absence of any similar caps on subsidies/support for other types of electricity generation. A large number of respondents also cited concerns about the impacts of the proposals on tackling climate change and on renewables jobs and growth. Linked to this, a common concern was that the introduction of caps would create a stop-start industry, with some arguing that this would in turn have an adverse effect on quality, safety and price.
- 2.7. The second most common objection to the proposed introduction of deployment caps was that it would create too much uncertainty for businesses, individuals, investors, local government, community groups and social landlords to invest and make proper plans. A recurring view was that caps would make FITs a lottery, with some arguing that this uncertainty would be most pronounced for projects with long lead-in times (i.e. those requiring planning permission and other consents). Several respondents argued that if caps were introduced, the re-introduction of pre-accreditation would be essential to reduce some of this uncertainty.
- 2.8. As well as uncertainty, some respondents who disagreed with the proposal also cited other potential impacts of caps on the market. For example, the risk that caps could interfere with the market, reducing competition and basing investment decisions on speed rather than the appropriateness/innovativeness of products and solutions. A number of respondents from community organisations also expressed concern that the finite funding available for FITs would be used up by commercial projects at the expense of community/social housing schemes which, they said, generally take longer to develop and deploy.
- 2.9. Another strong theme amongst comments from those who disagreed with the proposals was an objection to the proposed budget for FITs and the resulting caps. Many respondents felt that the proposed budget was too small, and several argued that the LCF should be increased or funding of FITs moved from the LCF to central taxation.
- 2.10. There were also some respondents who argued that introducing deployment caps should be unnecessary if tariffs are set at the right level and degression is in place. Alternative suggestions for an approach based entirely on degression, with tariffs reducing automatically as soon as a capacity trigger was hit, were put forward.
- 2.11. Several respondents used their responses to this question to set out concerns about the proposed approach to implementing caps and to suggest alternative approaches to allocating caps (the focus of questions 9 and 10 of the consultation). Concerns highlighted included the expense and complexity of administering a system of caps and an increased fraud risk. Alternative approaches to allocating caps included suggestions to increase and decrease the caps of particular technologies and scales; to limit FITs to

particular groups individually or in combination (e.g. households, communities, schools) There was also a request to clarify the position in relation to the caps on micro CHP.

### **Neither agreed nor disagreed**

- 2.12. A significant number of respondents to this question neither agreed nor disagreed with the proposed introduction of caps. Some such respondents did provide comments which echoed those made by both those agreeing and disagreeing. For example, some argued that the proposed caps were too low, while others cited concerns about uncertainty and the impacts of this on investors, suggesting that re-introducing pre-accreditation and pre-registration could help with this.
- 2.13. There were also more suggestions about alternative ways in which the proposed caps could be allocated to different groups and technologies/scales. A few respondents asked for the hydro cap to be divided up, based on the tariff bands, to avoid large hydro schemes dominating at the expense of micro ones. Finally, there were a number of suggestions and comments on implementing caps including concerns about the administrative burdens on FITs licensees; a view that caps should be designed to ensure funding is spread and allows a steady flow of deployment; and a suggestion that caps should be introduced gradually to enable reasonable project planning.

### **Government decision**

- 2.14. The Government's decision on the design of caps is based on consideration of responses to question 8 as well as feedback provided in responses to questions 9 and 10.
- 2.15. The Government recognises that there are strong objections to the principle of capping deployment under FITs. In many cases these echoed concerns about the FITs Review as a whole and Government's support for renewables, both of which are addressed in the Executive Summary. Nonetheless, the Government remains of the view that caps are essential if the scheme is to continue and if its impact on consumers' bills is to be properly controlled. In this context the Government has given careful consideration to the alternatives suggested through the consultation, including relying on tariff changes and degression to control expenditure under FITs. However, it is not persuaded that this would provide the robust budgetary control now needed. Therefore, the Government has decided to proceed with the introduction of deployment caps.
- 2.16. The Government also recognises the strength of opinion, including from those agreeing with the principle of deployment caps for FITs, that the £75m-£100m budget referred to in the consultation is too low. However, £100m remains the maximum amount that the Government believes is affordable, given the significant level of deployment and support already provided under the FITs scheme before and during the consultation, and in the context of higher than expected spend on the LCF.

2.17. Government has also considered the feedback and suggestions on the proposed design and implementation of caps. Decisions on these are set out below.

### Question 9 – Cap Design

Consultation question	1850 unique responses
Q9	Do you agree or disagree with the proposed design of the system of caps (i.e. quarterly deployment caps broken down by technology and depression band)? If you disagree, are there any alternative approaches? Please provide your reasoning, making clear if your answer is different for different technologies or sectors.

### Summary of responses

2.18. There were 1850 unique responses to this question from a wide range of respondents including members of the public, community groups, trade associations, renewable energy companies, licenced electricity suppliers, NGOs, public bodies and academia. Of the unique responses, around 7% agreed with the proposed introduction of deployment caps, 37% disagreed, and 56% neither agreed nor disagreed.

### Agreement with proposal

2.19. A range of comments were provided by those who agreed with the proposed cap design. Some focused on the potential benefits of a system of quarterly caps broken down by technology. Suggested benefits included encouragement of cost reductions, provision of a tighter and more dynamic mechanism for controlling costs, enabling deployment to be evenly spread and helping businesses (including manufacturers) to plan.

2.20. There were also a number of comments which suggested qualified agreement; agreeing with the principle of caps but on the basis of changes to the proposals. The most frequently cited suggestion, largely from the renewables industry, was that there should be a mechanism to carry forward any unused capacity from one cap to the next. Some respondents added a view that this would be particularly important for technologies where there were seasonal variations in deployment e.g. hydro power. Alternative approaches for allocating caps were also put forward, with a handful of community and NGO respondents suggesting that caps should be focused on the most efficient and despatchable technologies, and technologies with the least environmental impacts. A few respondents also believed that the level of the proposed caps was too low and needed to be increased.

2.21. Concerns about uncertainty were also evident in some of the comments from those who agreed with the proposals, with a number arguing that pre-accreditation should be re-introduced to tackle some of the uncertainty inherent in a capped system.

## Disagreement with proposal

- 2.22. Just over a third of those who answered this question disagreed with the proposed cap design. The main reason cited by around 150 of those who disagreed and covering nearly all respondent-types was objection to the principle of caps for similar reasons as those provided in responses to question 8. Uncertainty was another recurring theme, with nearly 20 respondents (largely from community and industry) expressing concern that the proposed system of caps would be a lottery entailing too much uncertainty for projects to proceed. There were also again a number of objections to the proposed level of caps, with several respondents arguing that the overall cap was too low, while one of two others commented that the caps for AD and solar PV were too low, and the cap for hydro too high.
- 2.23. Around 30 respondents provided detailed comments on the proposed frequency of caps. Many of these explicitly endorsed the idea of quarterly caps, while others expressed concerns that quarterly caps would be too frequent, making proper business planning difficult and creating too much uncertainty. There was no clear consensus on an alternative approach; the most common alternatives suggested by around 10 respondents each were 6 monthly caps and annual caps. A couple of respondents also suggested more frequent caps i.e. monthly, to reduce the risk of boom and bust.
- 2.24. There were also a number of suggestions made on different approaches to allocating the proposed caps. A couple of respondents disagreed that the cap should be broken down at all, arguing that a single, overall cap would maximise the subsidy available for more popular technologies like solar PV. However, the majority of respondents who commented agreed that the proposed cap should be split up between technologies and degeneration bands. A few industry representatives, including key trade associations, suggested different ways of distributing caps for individual technologies, namely:-
- For AD combining the two proposed caps into a single, consolidated cap, to avoid artificially distorting the market;
  - For hydro, breaking up the single cap proposed to make a discrete cap for smaller, community hydro projects and prevent a perceived risk that otherwise the available cap would be dominated by larger projects. There was no consensus on what the cut-off point for this small hydro cap should be, but 100kW was suggested by several respondents;
  - For wind, extending the <50kW cap to all <100kW installations to prevent a perceived risk of the cap being dominated by larger wind projects.
- 2.25. There were also a number of suggestions to allocate the cap by recipient-type rather than technology. Examples suggested included caps for social housing, community projects, fuel poor households, schools, and brownfield sites.

2.26. A couple of respondents said that they disagreed with the proposal to use deployment capacity of applications as the metric on which the caps should be based. Alternatives suggested by individual respondents were number of installations (to reduce the chance of small projects losing out at the expense of larger ones) and a monetary cap (for maximum budgetary control). A couple of respondents who agreed with the suggestion of a deployment cap, suggested that the level of deployment should be the level deemed necessary to achieve the objectives of the FITs scheme rather than modelled deployment projections.

2.27. A number of respondents to this question focused their comments on options and issues surrounding the implementation of caps including a preference for a rolling system; a suggestion that installers/customers should be able to bid for a place in a cap (possibly through a competitive system) before their installation begins; concerns about the possibility of a stop-start system; emphasis on the importance of regular deployment monitoring; a suggestion that the cap should be a monetary cap rather than a deployment cap; a request that there should be no contingent degeneration if caps are introduced. Several respondents also flagged concerns about the administrative complexity of implementing caps. Around 15 respondents, largely from industry, indicated their support for the alternative model on caps put forward in the Solar Trade Association's consultation response.

2.28. Around 15 respondents highlighted the importance of allowing unused capacity from any cap to be rolled forward into a future cap, with one or two suggesting that such rolled forward capacity should be redistributed from technologies which are serially underperforming and or refocused on small-scale installations.

### **Neither agreed nor disagreed**

2.29. Over half of respondents to this question neither agreed nor disagreed with the proposed design of the system of caps. Comments provided by some of these echoed those made by both those agreeing and disagreeing. For example, some reiterated their opposition to the principle of capping FITs. Others said that they agreed with caps in principle, but felt that the caps proposed were too low. On the proposed design of caps, a couple of comments expressed support for quarterly caps, while a similar number argued for 6 monthly caps. The re-introduction of pre-accreditation and the ability to carry over unused capacity from one cap period to the next, were also believed to be important changes if caps were to be implemented.

### **Government decision**

2.30. Government's decision on the design of caps is set out below. This is based on consideration of responses to questions 9 as well as feedback provided in responses to questions 8 and 10.

2.31. Metric of caps: Only a few respondents commented on the proposal to base caps on applications for deployment capacity. Of the alternatives

suggested, the Government feels that a cap based on number of installations wouldn't provide the budgetary control sought. As set out in the consultation Impact Assessment, Government agrees that a monetary cap would have benefits. However Government remains of the view that this would be difficult to put into operation, and would add further complexity for new generators. Therefore, Government has concluded that the cap should be expressed in terms of applications for deployment (i.e. MW of total installed capacity) as proposed.

- 2.32. Frequency of caps: The Government has listened to the different views on the frequency of caps. Given that there was some support for quarterly caps as a means of spreading deployment, and in the absence of any clear consensus on an alternative, Government has decided to proceed with quarterly caps.
- 2.33. Allocation of caps: In the light of responses the Government intends to proceed with the proposal for individual caps broken down by technology and depression band. However, the Government has decided to adjust the way in which the caps for AD, hydro, and wind are distributed. This is in response to requests from trade associations and industry summarised in paragraph 2.24 above. The result is a single depression band/cap for AD; and an additional depression band/cap for each of wind and hydro as set out in table 9.
- 2.34. In reaching this decision, Government has given careful consideration to alternative approaches put forward. In particular, the idea of allocating caps based on recipient-type to enable the finite FITs budget to be ring-fenced for particular types of projects. While the Government is sympathetic to the idea of ring-fencing support for community projects, Government seeks to ensure any changes to the scheme remain within the scheme's current State Aid approval. Government also consider that further work would be needed to ensure clear workable definitions and to avoid the risk of gaming.
- 2.35. Calculation of caps: In the consultation, the Government proposed distributing the £100 million budget between technologies based on the underlying FITs modelling. The caps proposed under this approach were proportionate to the Government's projections of how much deployment would come forward under the proposed tariffs, and how much this would cost. The Government has revisited this approach in the light of:-
- support in consultation responses for refocusing FITs on solar PV, and concerns that the proposed allocation of caps was inconsistent with this;
  - the new tariffs set out in Table 7 above which result in deployment and spend projections above the £100 million budget; and
  - the decision confirmed in paragraph 1.52 above to re-introduce pre-accreditation.
- 2.36. The Government has decided to set the caps for those technologies which cannot pre-accredit (i.e. <50kW solar and wind) at the maximum end of the deployment projections and associated expenditure. This means that

all small solar and wind projects that are projected to deploy, will be able to. This should significantly reduce (although not remove) the risk that some applicants with a fully commissioned installation will miss out on a cap.

2.37. The remaining budget has then been distributed between the other technologies. The result is caps for AD, hydro and >50kW solar and wind which are affordable but are lower than the maximum deployment projected. This means that not all projects that are projected to deploy will be able to. However, pre-accreditation will be available to these projects. This means they will be able to “book” a place within a cap long before they are fully commissioned, reducing (although not removing) the risks associated with missing out on a cap. Table 10 below shows how the budget has been divided between technologies on the basis of this approach.

Table 10 – Maximum Deployment caps (deployment per quarter)

		2016				2017				2018				2019
Maximum Deployment (MW)		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
PV	<10kW	48.4	49.6	50.6	51.7	52.8	53.8	54.2	55.9	57.0	58.0	59.1	60.1	61.1
	10-50kW	16.5	17.0	17.4	17.8	18.2	18.6	18.7	19.4	19.8	20.3	20.7	21.1	21.5
	>50kW	14.1	14.5	14.9	15.4	15.8	16.2	16.4	17.1	17.6	18.0	18.5	19.0	19.4
	Standalone	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Wind	<50kW	5.6	5.6	5.5	5.5	5.6	5.5	5.5	5.4	5.5	5.4	5.4	5.3	5.4
	50-100kW	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	100-1500kW	6.8	6.7	6.6	6.5	6.4	6.3	6.2	6.1	6.1	5.9	5.8	5.7	5.7
	1500kW-5000kW	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Hydro	0-100kW	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4
	100-5000kW	6.1	6.2	6.3	6.3	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.3	6.3
AD	All	5.8	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

2.38. Table 11 provides an estimate of the number of installations that could come forward under each cap. These numbers are based on the average installation size within each band and are therefore only indicative. If larger than average installations come forward, then the number of installations that are included within the deployment cap will be lower.

Table 11 – Estimated number of installations at maximum deployment (deployment per quarter)

		2016				2017				2018				2019
Estimated number of installations <sup>14</sup>		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
PV	<10kW	15330	15710	16050	16380	16720	17060	17170	17720	18060	18390	18710	19040	19360
	10-50kW	500	510	520	530	550	560	560	580	600	610	620	630	650
	>50kW	70	70	70	70	80	80	80	80	80	90	90	90	90
	Stand-alone	2	2	2	2	2	2	2	2	2	2	2	2	2
Wind	<50kW	540	540	540	530	540	530	530	520	530	520	520	510	520
	50-100kW	4	4	4	3	4	3	3	3	3	3	3	3	3
	100-1500kW	20	20	20	20	20	20	20	20	20	20	10	10	10
	1500kW-5000kW	2	2	2	2	2	2	2	2	2	2	2	2	2
Hydro	0-100kW	50	50	60	60	60	60	60	70	70	70	70	70	70
	100-5000kW	10	10	10	10	10	10	10	10	10	10	10	10	10
AD	All	10	10	10	10	10	10	10	20	20	20	20	20	20

2.39. **Micro-CHP:** Several respondents asked for clarification about how micro-CHP would be treated under the caps. As set out in the consultation document, Government has not proposed amending the existing arrangements for micro-CHP. However, we are planning on looking at micro-CHP in more detail as part of the consultation on tariffs for AD envisaged for early next year.

2.40. Responses to question 9 also covered the principle of introducing caps and options for implementing caps. These were the subject of questions 8 and 10 respectively and the feedback and suggestions on these have been reflected in the Government decisions on each of these issues as set out in the analysis of and decision on question 10 below.

<sup>14</sup> Note that this is based on the average installation size – the number of installations permitted under the cap could be higher or lower.



## Question 10 – Cap Implementation

Consultation question	1821 unique responses
Q10	Do you agree or disagree with the proposed approach to implementing caps? If you disagree, are there any alternative approaches that you'd suggest? Please provide your reasoning, making clear if your answer is different for different technologies or sectors and provide any views on what should happen to applications for FITs for installations which miss out on a cap.

### Summary of responses

2.41. There were 1821 unique responses to this question from a wide range of respondents including members of the public, community groups, trade associations, renewable energy companies, licenced electricity suppliers, NGOs, public bodies and academia. Of the unique responses, around 4% agreed with the proposed introduction of deployment caps, 39% disagreed, and 57% neither agreed nor disagree.

### Agreement with proposal

- 2.42. The majority of comments provided by those who agreed with the proposed approach to implementing caps focused on which system respondents favoured out of the two suggested, and why. Around 15 respondents, including representatives from local government, industry, NGOs and licenced electricity suppliers, expressed support for some sort of rolling or queueing system whereby those who miss out on a cap are first in line for the next cap. The main reasons cited for this preference were reduced uncertainty and reduced administrative burdens on both applicants and Ofgem. Around 6 respondents, mostly from community campaign groups, indicated a preference for a stop-start approach on the grounds that it would avoid a cap being exceeded in any period. No alternative implementation models were suggested.
- 2.43. A number of respondents also made suggestions and comments relating to the implementation of caps. These included making real time deployment information publicly available; putting in place a mechanism to recycle unused capacity from one cap into a future one; re-introducing pre-accreditation; and ensuring that customers are made aware of the potential variability in their level of support.
- 2.44. Some of those who agreed with the proposed approach to implementing caps commented that they agreed with the principle and proposed approach to capping, while others said that they agreed with the principle of caps but felt that the level was too low or that alternative approaches to cap design should be considered (echoing some of the feedback provided in responses to questions 8 and 9).

## Disagreement with proposal

- 2.45. Just over a third of those who answered this question disagreed with the proposed approach to implementing caps. As with responses to question 8 and 9, the main reason cited by just over 100 of those who disagreed and covering nearly all respondent-types was objection to the principle of caps for similar reasons as those provided in responses to question 8. Uncertainty was another recurring theme, with nearly 30 respondents (predominantly from industry) referring to the certainty needed by customers and developers before they commit to a project, and a concern that this would not be provided by a system of caps. There were also a number of objections to the proposed level of caps, with several respondents arguing that the overall cap was too low. There were also suggestions that the caps for AD and solar PV were too low, and the cap for hydro too high.
- 2.46. Comments from several respondents also echoed responses to question 9, including alternative suggestions on the frequency of caps (monthly, 6 monthly or annual) and different approaches to allocating caps.
- 2.47. A number of respondents provided detailed comments on the options for caps implementation set out in the consultation. Of the two models put forward, the majority of respondents who commented (largely those representing community groups, industry, and local government) favoured some sort of rolling or queuing system, whereby applications that miss out on one cap are carried forward into the next cap; put on hold until the next cap begins or at least given the option of either of these. The main reasons cited for preferring this type of model included increased certainty and reduced bureaucracy for applicants (as a result of not needing to re-apply). Several respondents also objected to the stop-start system arguing that it would make the risks too high for securing project finance. Some also raised concerns about IT systems crashing at the start of each quarter under this approach. Only one respondent who disagreed indicated a preference for the stop-start model, on the basis that it would avoid the overall cap being committed early on in the three years.
- 2.48. Some respondents who disagreed with the proposed approach to implementing caps put forward alternative models. These included, a real-time contingent degression system (i.e. when a capacity trigger is hit, tariffs degress immediately and the new lower tariffs come into effect straightaway); a competitive bidding system for communities and public sector organisations; and a hybrid system whereby those missing out on a cap are kept into a queue until the subsequent quarter's cap is reached, at which point further applications are rejected and expected to re-apply.
- 2.49. Some respondents also expressed support for proposals put forward by the Trade Associations. The proposal put forward by the Solar Trade Association received most support, being explicitly endorsed by around ten respondents. The STA's proposal was for a system of higher caps, increasing incrementally over time and with a high level of flexibility to enable capacity to be moved between quarters (unused capacity rolled forward and additional capacity borrowed from a future quarter – at a reduced tariff rate).

- 2.50. A number of respondents also made suggestions and comments on wider issues linked to caps implementation. The most prominent of these concerned pre-accreditation, with around 30 respondents urging the Government to re-introduce pre-accreditation or to establish a pre-registration system as part of a capped system. Some of these respondents also suggested modifications to pre-accreditation under a capped system including penalties to deter speculative applications and a limit of 80% on the amount of any cap that can be taken up by applications for pre-accreditation.
- 2.51. Other implementation issues raised included concerns about over-complexity; concerns about mis-selling; a request that caps be phased in over a longer timeframe; emphasis on the need for real-time deployment data; the importance of unused capacity from one cap being recycled forward to future caps; a suggestion that tracking deployment towards a cap should be based on applications to FITs licensees; and a concern that delaying FITs payments until the start of a qualifying cap period would create too much uncertainty.

### **Neither agreed nor disagreed**

- 2.52. The majority of those who responded to this question neither agreed nor disagreed with the proposed approach to implementing caps. Nonetheless, some respondents in this category provided comments and suggestions on the proposals in this consultation.
- 2.53. Most comments focused on the two potential models for caps implementation set out in the consultation. In general, there was a preference for some sort of rolling or queueing system. Several respondents favoured the rolling system proposed in the consultation. Others suggested that those who miss out on a cap should be first in line for the next cap and/or should have their applications held until the next cap opens. A couple of respondents from industry endorsed the proposed approach to caps from the Solar Trade Association, and there was also a suggestion for an alternative, competitive approach to allocating any cap.
- 2.54. Again, respondents in this category also provided comments on the principle of capping FITs and the proposed design of caps. Suggestions in this context included focusing caps on limiting uptake of particular types of solar PV project; increasing the level of the cap and including a correction factor in the cap to allow for the expected percentage of MCS certificates that don't end up corresponding to a FITs installation.
- 2.55. A number of comments also related to wider implementation issues on caps including concerns about fraudulent MCS certificates; a question about what happens to applicants where the capacity of a project causes a cap to be both hit and exceeded; and a request for clarity on how and when licensees will be informed of a cap being hit. There were also a number of respondents who advocated the re-introduction of pre-accreditation.

## Government decision

- 2.56. Government's decision on how caps will be implemented is based on consideration of responses to question 10 as well as feedback provided in responses to questions 8 and 9.
- 2.57. Tracking deployment: The Government has decided to proceed with the broad approach to tracking deployment set out in the consultation document, adjusted to reflect the decision to re-introduce preliminary accreditation. The data that will be used for determining if and when a cap has been hit is as follows:-
- Data on new <50kW solar PV and wind projects registered on the Microgeneration Certification Scheme (MCS) database from 00:00:01 on 15 January 2016; and
  - Ofgem's records of applications received for full accreditation under the ROO-FIT accreditation process from 00:00:01 on 15 January 2016 and of applications received for preliminary accreditation from 00:00:01 on 8 February 2016.
- 2.58. Government recognises the concerns raised by some that discrepancies with MCS certificates could result in an overestimate of the capacity actually installed. However, Government remains of the view that a capped system necessitates using the most up-to-date measure of deployment. In the case of <50kW solar PV and wind, this remains the MCS database which is already the basis for tracking deployment for the purposes of degeneration. If there are discrepancies, then the budget reconciliation exercise described in paragraphs 2.75 – 2.78 will provide an opportunity to re-allocate any unused capacity.
- 2.59. A number of respondents to the consultation asked for clarity on which installations would be included in the cap and which would not. The Government has decided that it would not be practicable to count the following installations towards the cap from 15 January 2016:
- (i) Installations with pre-accreditation or pre-registration from before 1 October 2015;
  - (ii) Installations whose applications for FITs accreditation are received by their FIT licensee on or after 15 January 2016 but which have an MCS certificate with a time/issue date before 15 January 2016;
  - (iii) Installations whose applications for ROO-FIT accreditation are received by Ofgem before 15 January 2016 but which commission after 15 January 2016
- 2.60. Table 12, in the response to question 12 below, provides an overview of this approach for transitional installations in more detail.
- 2.61. Government will however monitor the level of deployment from the transitional installations described in (ii) and (iii), and will if necessary take action to balance out the costs of these through the budget reconciliation process described in paragraphs 2.75 – 2.78.

- 2.62. It is also important to stress that the transitional installations described in (ii) and (iii) will only be eligible for the new tariffs from 8 February 2016. This is consistent with the approach taken for previous tariff changes. For example, a householder has a solar PV installation installed on their property and is issued an MCS certificate dated 13 January 2016. The householder then applies to their FIT licensee and their application is received on 17 January 2016. The installation here would not be counted towards the cap. However, it would be affected by the Pause and would only be eligible for FITs payments under the new tariffs once these are implemented on 8 February 2016. Transitional MCS installations like this would also need to ensure that their applications for FITs are received by a FIT licensee by 31 March 2016 in order to be eligible for any support under FITs. This time limit is necessary given the administrative costs and complexity of continuing these transitional arrangements in perpetuity.
- 2.63. The Government has also decided to retain the approach for determining tariff eligibility for <250kW community and school solar PV projects that choose to use the pre-registration process. Pre-registration enables <250kW school and community solar PV projects to receive a relaxation of the minimum energy efficiency requirements from Ofgem. These school and community projects will be counted towards the cap in the same way as other installations. Their tariff eligibility will be based on the later of the date of their application to Ofgem for pre-registration or the first date of the tariff period within which the installation qualifies for accreditation.
- 2.64. Table 12, in the response to question 12 below, provides an overview of what this approach means for transitional installations, in terms of whether they would be counted towards the cap and whether they would be affected by the pause and new tariffs.
- 2.65. What happens if a cap is hit: If and when the deployment data shows that a cap has been reached, the exact date and time (to the second) will be recorded by Ofgem. Installations with MCS certificates timed and dated before and up to the point when a cap is reached will be eligible for the tariffs in place at that time; installations with MCS certificates timed and dated after the point when a cap is reached will have missed out on the cap and will not be eligible for the tariffs in place at that time.
- 2.66. Similarly, installations whose applications to Ofgem for preliminary or full ROO-FIT accreditation are received before the time and date when a cap is reached will be eligible for the tariffs in place at that time, as long as, in the case of the installation applying for full accreditation, the installation in question has already commissioned and no changes have been made in respect of that commissioned installation prior to its accreditation, and for the pre accreditation, the total installed capacity does not change between that applied for in the preliminary accreditation and that applied for full accreditation. Installations whose applications for preliminary or full ROO-FIT accreditation are received after the time and date when a cap is reached will have missed out on the cap and will not be eligible for the tariffs in place at that time.

- 2.67. Ofgem will publish regular deployment updates on their website to enable industry and others to keep track of deployment levels and if and when a cap is hit.
- 2.68. Some respondents asked for clarification about what would happen to installations that “straddle” a cap i.e. an installation which causes the cap to be hit and exceeded. The Government’s view is that caps are an absolute maximum on the level of deployment that can be afforded at a particular tariff. Therefore, if an installation both hits and exceeds the cap in the manner described, then (i) that installation should not qualify under the cap but should be in the queue for the next cap; and (ii) the cap should be considered as having been hit meaning contingent degeneration is triggered and no further deployment is eligible for the tariffs available under that cap. Any unused capacity that results from this can be included in the budget reconciliation process described in paragraphs 2.75 to 2.78 below.
- 2.69. What happens to applicants who miss out on a cap: The Government has decided to implement caps on the basis of a queuing system. This approach was suggested by a number of respondents. It means that those who miss out on a cap will have their applications frozen and put into a queue until the next cap opens. An applicant’s place in the queue will be based on their MCS certificate issue time/date (in the case of <50KW solar PV and wind projects) or the time/date of their original application to Ofgem for pre-accreditation or accreditation (in the case of AD, hydro and >50kW solar PV and wind projects) is received. **It is important to stress that a place in the queue is neither a guarantee of support under FITs nor a guarantee of eligibility for support at a particular tariff. DECC will retain the option of making future amendments to the scheme, which could include scheme eligibility (which could have implications for the size of future caps) and changing the application process (which could require applicants in the queue to re-apply).**
- 2.70. In reaching this decision, Government has listened to the widespread opposition to a stop-start system (whereby applicants who miss out on a cap have their FITs applications rejected and are told to reapply when the next cap opens). Government has also considered the support for the rolling system. However, responses to the consultation have highlighted the Government’s concerns that a rolling system could risk the entire cap being committed early on. This would constrain the Government’s flexibility with the FITs budget, including the ability to recycle and redistribute underspend and tackle any budgetary risks (see paragraphs 2.75 – 2.78).
- 2.71. Overall, Government feels that the queuing system should reduce some of the uncertainty of a stop-start approach. While this will not go as far as many respondents wanted, it will improve visibility for those involved in FITs and lessen the “lottery” effect that a number of respondents were concerned about.
- 2.72. Government has also taken further steps to reduce some of the uncertainty inherent with caps. In particular the decision to re-introduce pre-accreditation for projects subject to the ROO-FIT accreditation process; and the decision to set the cap for projects which are not able to pre-accredit

(<50kW solar PV and wind) at the maximum of projected deployment. Nonetheless, the Government will monitor the effectiveness and impact of the system of caps set out here, particularly in relation to the <50kW projects which are unable to pre-accredit.

2.73. Government has also decided that, as proposed in the consultation, the definition of “eligibility date” will be amended so that installations are eligible for FITs payments from the later of their application date or the start of the cap period under which they qualify. For new ROO-FIT applicants, this means that an application for full accreditation can only be submitted once an installation has been commissioned. The amended approach to defining eligibility applies to all installations that apply for FITs from 15 January.

2.74. The diagrams below present the expected “customer journey” for both those seeking to accredit through the MCS process as set out in Figure 1 below or through the ROO-FIT process set out in Figure 2.

Figure 1

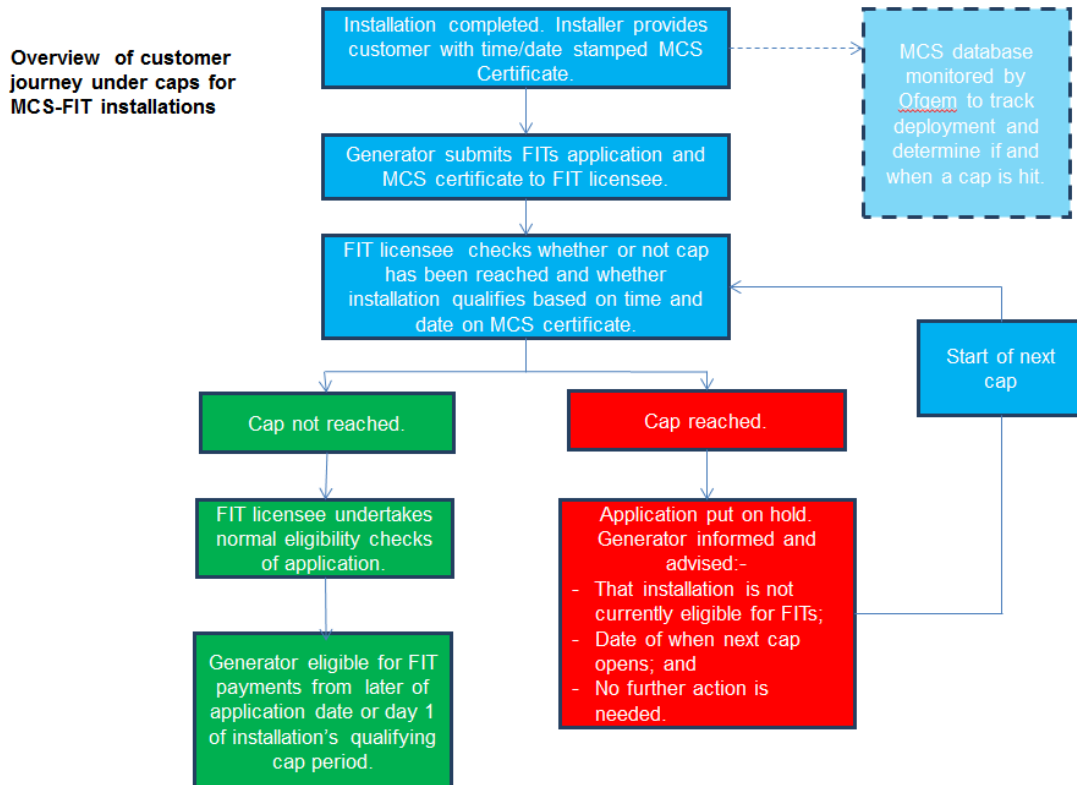
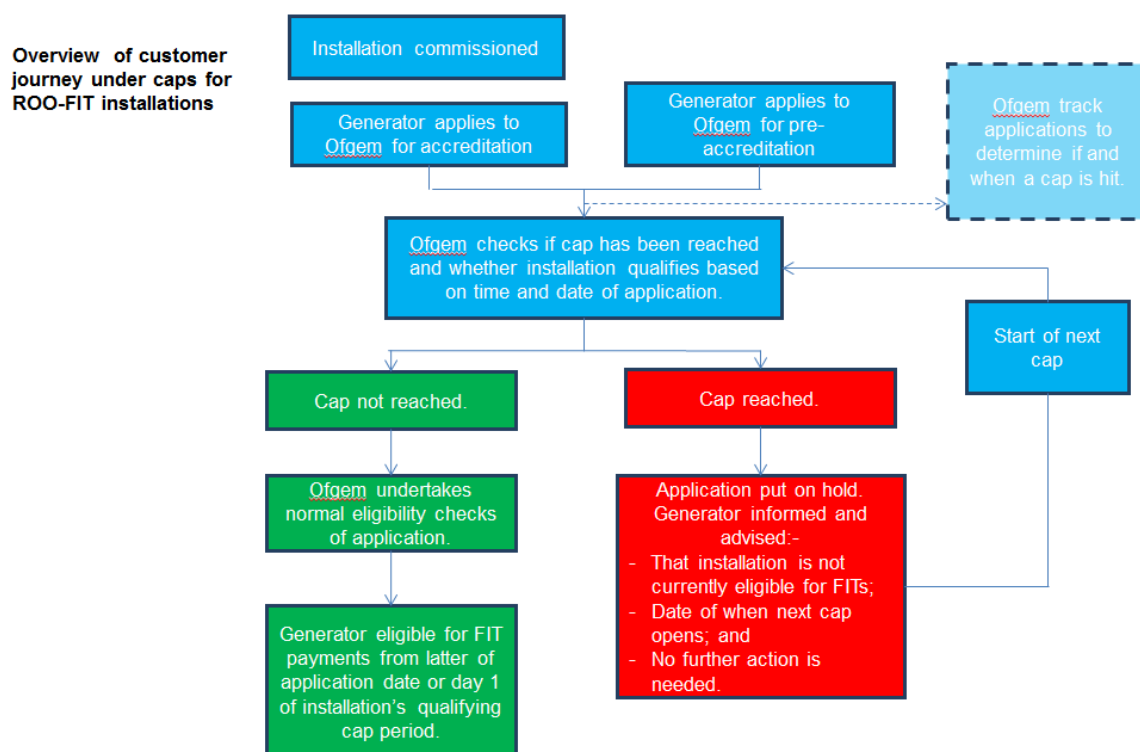


Figure 2



2.75. Recycling underspend: Government agrees with the strong message from consultation responses that there should be a mechanism for recycling underspend as part of the system of caps. Having carefully considered consultation responses Government believes that this mechanism should be able to perform a number of functions. These could include correcting seasonal fluctuations in deployment for individual technologies; re-distribute underspend to avoid underusing the £100 million budget; mitigating against any budgetary risks; and, if appropriate, supporting scheme refocusing. Although Government is not re-focusing the eligibility of the scheme at this time it will be important to ensure that the scheme continues to provide the best possible value for bill-payers. Government will therefore review eligibility and the balance of caps between technologies next year. This will also consider whether there are grounds for reviewing proposed tariffs following implementation of proposed changes. This will take account of factors including deployment levels, broader policy objectives, State Aid constraints and value for money. An update on this will be made in the first quarter of 2016.

2.76. Therefore, Government has decided that there should be a two-speed system for recycling underspend under FITs. Firstly, every quarter, any unused capacity from a particular technology and degression band resulting from lower than projected deployment, will be rolled forward - added on the next quarter's cap for the same technology and degression band. Secondly, Government will consider a more wide-ranging budget reconciliation exercise which Government expects to be biannual but which could be more frequent depending on deployment. This would bring together any



underspend and, subject to addressing any budgetary pressures, redistribute it as deployment cap “top ups” across the scheme. In considering where Government redistributes these ‘top-ups’, Government will take into account its policy priorities. At the moment, we expect this redistributed underspend could be towards solar PV to continue supporting a trajectory towards subsidy-free deployment, as well as providing additional support to meet our earlier deployment projections. Underspend could result from:-

- Actual unused capacity due to lower than projected deployment;
- Unused capacity because of discrepancies in the MCS certificates and applications to Ofgem for ROO-FIT accreditation on which the cap will be based; and
- Faster than projected tariff depression if contingent depression has been triggered.

2.77. The reconciliation exercise will also address any emerging concerns about overspending due to costs associated with the transitional installations described in paragraph 2.59 and/or the residual load factor risk. This is the risk that if load factors are higher within a particular year than anticipated by the underlying FITs modelling, then spend may also be higher than projected. The consultation suggested that any savings resulting from contingent depression should provide a built-in buffer against this risk. However, the Government feels that retaining a range of options in the reconciliation exercise is more appropriate.

2.78. We will provide further detail on how the budget reconciliation exercise will work in due course. We are required by statute to consult on any changes to the tariff levels set out in the modifications to the standard licence conditions.

2.79. Government is also confirming, as set out in the consultation document, that caps may need to be adjusted in the event of any future tariff changes, for example, as a result of the outcome of the consultation on FITs support for Anaerobic Digestion in early 2016. A reduction in tariffs for a particular technology and/or depression band, could lead to an increase in the cap for other technologies. This is because lower tariffs mean more deployment can be afforded for the same cost. Similarly, an increase in tariffs for a particular technology and/or depression band could lead to a reduced cap for that technology because higher tariffs would mean less deployment could be afforded for the same cost.

2.80. Responses to question 10 also covered the principle of introducing caps and the proposed design of caps. These were the subject of questions 8 and 9 respectively and the feedback and suggestions on these have been reflected in the Government decisions on each of these.

## Question 11 – Closing the scheme to new entrants

Consultation question	1250 unique responses
Q11	If it is not possible to sufficiently control costs of the scheme at a level that Government considers affordable and sustainable, what would be the impact of ending the provision of a generation tariff for new entrants to the scheme from January 2016, ahead of the 2018-19 timeframe or, alternatively, further reducing the size of the scheme's remaining budget available for the cap? Please consider the immediate and broader economic impacts and provide your reasoning.

### Summary of responses

- 2.81. There were 1250 unique responses to this question from the full range of respondents. Responses focused on outlining probable consequences of removing generation tariffs from the scheme. Many responses here expanded on those to previous questions, emphasising and extrapolating from previous views on the impact of tariff changes and cost-control measures.
- 2.82. Some respondents used this question to set out alternatives to the removal of generation tariffs; some of the alternatives raised are set out below. A small number of responses focused on the cost-control benefits which would result from this measure.

### Impacts of removing generation tariffs

- 2.83. The most common response focused on employment impacts of continuing the scheme without generation tariffs. Responses argued that this change would lead to reduced deployment across all sectors, with significant job losses and adverse consequences for industry growth.
- 2.84. Several responses raised the potential impact on projects currently in the pipeline, where the removal of generation tariffs would mean projects did not go ahead.
- 2.85. Many respondents speculated on the potential wider impacts of reduced deployment and job losses, including the economic cost of unemployment and loss of tax revenues from renewables companies. More broadly, respondents argued that removing generation tariffs now would undermine the lasting legacy of investment under the scheme so far.
- 2.86. Respondents claimed that removal of generation tariffs would lead to companies going out of business, reducing the number of participants in the industry. Some responses claimed there would be a particular negative impact on SMEs.
- 2.87. Various responses claimed that removing generation tariffs would undermine public engagement in renewable energy and reduce public

confidence in the sector. Respondents also commented that such a change would result in a gold rush of applications, with negative impacts for quality and safety of installations. Several respondents raised issues around scheme accessibility; removing generation tariffs would increase barriers to installing renewables and accessing support.

- 2.88. The potential policy consequences raised in responses included damaging the UK's credibility on climate change (with consequences for the Paris COP); the environmental impact of reduced deployment under the scheme, including on achieving renewable energy and emissions targets; and impacts on energy security and fuel poverty policy.

### **Impacts on specific sectors**

- 2.89. Various respondents focused on the impacts on specific sectors. Respondents argued that generation tariff withdrawal would prevent or delay solar PV achieving grid parity, with diverse views as to how long this would take. Several responses concentrated on the particular impacts on the smaller solar tariff bands (with some taking the view that large-scale solar would be able to survive without generation tariffs). Respondents also argued for a scheme focus on both the domestic and commercial rooftop sectors.
- 2.90. Respondents from the wind sector raised the potential loss of a strong UK manufacturing base; as well as impacts across the wider supply chain. Respondents from the hydro sector variously picked out the impact on the smallest hydro projects; low-head hydro; and community hydro. In the anaerobic digestion sector, respondents highlighted specific impacts on waste-based projects and the impact on wider waste objectives.
- 2.91. Several respondents claimed that the micro-CHP sector would not survive without support via generation tariffs. There was some argument that the scheme could be refocused on micro-CHP, to drive deployment of a "new" low carbon technology.
- 2.92. Community energy was widely mentioned as a sector where the lack of generation tariffs, would particularly undermine deployment. Respondents claimed that the longer time communities typically take to deploy, and their greater difficulty in accessing finance, meant the uncertainties of a capped or export-tariff only scheme would be amplified for them. Many respondents emphasised the wider benefits of community energy and the value of the volunteer capital which would be lost if projects were not able to deploy.
- 2.93. The potential impact of changes on public bodies was also raised, in particular those deploying solar PV on social housing. It was argued that as the public bodies deploying these panels did not directly benefit from bill savings, removing generation tariffs would have a particular adverse impact.

### **Evidence from the consultation**

- 2.94. Several companies responded highlighting already incurred or anticipated job losses. One respondent provided detailed information, stating

their expected employment impacts within their business which would be spread over a range of roles. A number of responses claimed that there would be job losses, of which a few provided a quantified estimate totalling fewer than 200 jobs lost. These respondents constitute a very small sample of businesses within the industry which is insufficient to be able to scale up and develop an industry wide estimate.

- 2.95. DECC is aware of other estimates for job losses including an estimated 27,000 according to the Solar Trade Association (STA).

### **Other comments**

- 2.96. Many respondents took issue with the judgement of affordability and sustainability implied in the question, with various responses arguing for either a greater LCF budget for renewables or a redistribution of the budget between technologies.
- 2.97. The most common alternatives proposed to the withdrawal of generation tariffs were the possibility of supporting deployment via tax incentives; investigating other sources of funding for support; or restricting the focus of the scheme. Several respondents also emphasised the necessity of a stable, predictable export tariff in enabling deployment in a world without generation tariffs.

### **Government decision**

- 2.98. Government recognises that the FITs scheme has been a success in bringing forward deployment of small-scale renewables. This has come at a cost to electricity consumers and FITs installations do not provide better value for money compared to larger scale renewables technology. However, Government recognises the wider benefits of the scheme in engaging non-energy professionals, such as households and communities, and does not therefore feel that closing the scheme now is appropriate given that Government intends to keep the generation tariff available at a more sustainable tariff level with the cost control measures proposed in this response.
- 2.99. Government recognises comments that closing the scheme would have a more significant impact on jobs. The impact on job losses if Government closed the scheme has not been estimated in the accompanying Impact Assessment as Government does not intend to pursue this option. However, based on the evidence received, the measures taken forward in this response could see FITs continue to support 15,000-23,000 solar jobs and 1,600-1,800 onshore wind jobs, based on headcount. More information on how these estimates were made is set out in the Impact Assessment accompanying this response. Given the imprecise nature of these estimates and assumptions, they must be treated with caution and are used only to give an indication of the possible reduction in jobs supported.

## Question 12 – Pausing the scheme

Consultation question	991 unique responses
Q12	What would be the impact of pausing applications to FITs for new generators for a short specified period to allow the full implementation of the cost control mechanisms? Please consider the immediate and broader economic impacts and provide your reasoning.

### Summary of responses

2.100. There were 991 unique responses to this question with the vast majority of those responding stating reasons why a pause would be detrimental to either for their business or the renewables sector more widely. Only a small number of respondents thought a pause to the scheme was a good idea. Approximately 10% of the respondents to this question stated they didn't feel able to accurately give a view on what the impact of a pause would be.

### Impact of a pause to the scheme

2.101. The majority of respondents raised points relating to the uncertainty that a pause might create in the renewables industry which, in turn, might lead to a loss of investor confidence. This belief focussed on several different impacts including a potential loss of jobs, skills and a potential reduction in the UK installation capacity. Many cited the announcement of the consultation itself as creating uncertainty and believed a pause would have a similar effect often referencing the perception of a "stop-start" culture that needed to end, replaced by a period of stability.

2.102. A smaller number of respondents specifically claimed that a pause would cause significant issues with cash flow, which in turn might impact on the long term viability of their business. Many of these respondents felt that a pause would impact small and medium size enterprises disproportionately more, as it was claimed that larger companies are able to withstand a reduction in cash flow over a longer period of time.

2.103. A number of respondents felt a pause, although generally undesirable, was a better option than closing the scheme. Many respondents stated what they considered to be a reasonable timeframe for a pause in these circumstances which generally ranged from two weeks to no longer than a year. Some, who stated a longer pause was worthwhile, thought the time should be used to consider and consult further on the proposals from the consultation. Many respondents representing the community energy sector suggested 3 months would be appropriate although, most commonly by other respondents, 3 - 6 weeks was considered the maximum amount of time the scheme should be paused.

2.104. If a pause was to be implemented, some respondents stated that it should be short and clearly defined, with a clear message on what the

scheme would look like after the pause. A small number of respondents suggested there should be a grace period for those who have already invested in projects.

- 2.105. A small number of respondents had more specific views. Some stated there should be no pause in addressing climate change, however others believed a pause could be necessary to minimise the impact of the scheme on electricity bills. Others highlighted that a pause may cause a surge in applications before and/or after the pause which may create additional administrative burden and cause caps to be fully allocated sooner.

### **Government decision**

- 2.106. Government recognises that a pause to the scheme may create a degree of uncertainty for some organisations for the period they are not able to access the scheme. However, balanced against this, Government must consider the long term viability of the scheme. In order to preserve the £100m budgetary cap from January and ensure better value for money for bill payers associated with the new tariffs, it is necessary to implement a pause.
- 2.107. The scheme will therefore pause from 15 January 2016 until new tariffs and caps are implemented on 8 February 2016, the date at which the scheme will re-open to new-entrants. In light of comments made by respondents, Government believes this to be a sufficiently short period of time to avoid significant adverse impacts to business. During the pause period, applications can still be submitted, but Ofgem will not accredit any new installations. Those that apply to accredit during this timeframe will be considered under the new capped system at new tariff levels. Installations will not be able to apply for pre-accreditation during this timeframe.
- 2.108. Table 12 below sets out the potential scenarios for different types of installations and if or how the pause might affect them.

Table 12 – Scenarios for transitional installations

	<b>Installation description</b>	<b>Counted towards caps</b>	<b>Subject to new tariffs</b>
<b>&lt;50kW solar PV and wind</b>	Installation commissioned and MCS certificate issued on or after 15 January 2016; application for FITs received by FITs licensee on or after 15 January 2016	Yes	Yes
	Installation commissioned and MCS certificate issued before 15 January 2016; application for FITs received by FITs licensee on or after 15 January 2016	No	Yes <sup>15</sup>
	Installation commissioned and MCS certificate issued before 15 January 2016; application for FITs received by FITs licensee before 15 January 2016	No	No
<b>&gt;50kW solar PV and wind; hydro and AD</b>	Installation commissioned on or after 15 January 2016; application for ROO-FIT accreditation received by Ofgem on or after 15 January 2016	Yes	Yes
	Installation commissioned before 15 January 2016; application for ROO-FIT accreditation received by Ofgem on or after 15 January 2016	Yes	Yes
	Installation commissioned on or after 15 January 2016; application for ROO-FIT accreditation received by Ofgem before 15 January 2016	No	Yes
	Installations with pre-accreditation from before 1 October 2015 which commission and apply for full accreditation either before or after 15 January 2016 within their period of validity for the pre-accreditation	No	No
	Application for ROO-FIT pre-accreditation received by Ofgem on or after 8 February 2016	Yes	Yes
	Installations with pre-accreditation granted on or after 8 February 2016 which commission and apply for full accreditation within their period of validity for the pre-accreditation	Yes	Yes
<b>&lt;250kW community/school solar PV installations pre-</b>	Application for pre-registration received by Ofgem before 1 October 2015; installation commissions before 15 January 2016.	No	No
	Application for pre-registration received by Ofgem before 1 October 2015; installation commissions after 15 January 2016.	No	No
	Application for pre-registration received by Ofgem after 30 September 2015 and before 15 January 2016; installation commissions on or after 15 January 2016.	Yes	Yes
	Application for pre-registration received by Ofgem after 30 September and before 15 January 2016; installation commissions before 15 January 2016	No	No
	Application for pre-registration received by Ofgem on or after 15 January 2016; installation commissions after 15 January 2016;	Yes	Yes
	Application for pre-registration received by Ofgem on or after 15 January 2016; Installation commissions before 15 January 2016.	No	Yes

2.109. Government does not intend to offer a grace period due to the short timeframe for the pause. The consultation, launched in August 2015, made clear that a pause may be necessary to preserve budgets for the long-term

<sup>15</sup> Subject to application for FITs being received by a FIT licensee by 31 March 2016.

viability of the scheme and further notice is given as part of this announcement until implementation of the pause on 15 January 2016.

### Question 13 – FITs beyond current budgets

Consultation question		828 unique responses
Q13	What would be the impact if FITs continued as an export-only tariff for new generators on reaching the cap of £75-100m additional expenditure? Please provide your reasoning.	

#### Summary of responses

2.110. Government sought views on the impact if FITs continued as an export-only tariff for new generators on reaching the cap of £75-100m additional expenditure. Responses to this question were received from 31.5% of all respondents, with the majority of responses coming from the renewables industry and private individuals. The vast majority of respondents stated that without the generation tariff then future deployment would be significantly curtailed and that the result would be the closure of renewables firms and corresponding job losses. It was also suggested by some respondents that social housing providers would possibly scale back plans to install FITs equipment because the export tariff alone would not provide sufficient returns to proceed with future projects.

#### Impact of proposal

2.111. There was moderate support for a move to an export tariff only FITs scheme. For some respondents, this was only because this was preferable to the total closure of the scheme and cessation of all tariffs. For other respondents, this was because they felt that efficient installations would still receive sufficient returns from both the export tariff and through bill savings from self-consumption (where the project was not stand-alone) to make investment worthwhile, with PV the technology most often highlighted as being sustainable under an export tariff only regime, particularly if the European Commission's Minimum Import Price (MIP) for solar PV modules was removed.

2.112. A few respondents suggested linking the export tariff to wholesale price or other indexes, while small suppliers in particular noted the potential damaging impact on their business models if the FITs scheme continues as an export tariff only regime without reform of the export tariff level or levelisation process. Linked to this, it was also noted that those considering installing FITs technology may be deterred by the prospect of an export tariff that could vary over time, with a flat rate (though inflation indexed) tariff more attractive to investors because of the certainty this provides.

2.113. A number of respondents noted that moving to an export tariff only regime would not incentivise self-consumption or the installation of storage, both of which are desirable for their whole system efficiency and stabilisation



benefits; given that bill savings at the retail price are higher than revenues through the export tariff, DECC considers that incentives for these desirable behaviours are somewhat inherent to the FITs design. Some respondents claimed that the proposed generation tariffs were so low as to effectively make the scheme an export tariff only regime in the near term, and others stated that changes to the scheme were undermining confidence in it.

2.114. Some respondents drew attention to particular groups (usually community projects, social housing projects, school projects, domestic installations, hydro installations or AD installations) that would be particularly impacted by such a change; in some cases, an exemption from any changes for such groups was requested. However, given the current State Aid approval for the scheme, Government wishes to avoid any change which would require a re-notification to the European Commission. A few respondents believed that removing the generation tariff would make the UK less likely to meet various renewables targets; however, as set out in the consultation document, Government does not expect that implementation of any of the proposed changes will adversely affect the ability to meet the UK's renewable electricity and carbon reduction targets.

2.115. A number of alternate measures were proposed. These included replacing FITs with net metering, or retaining the generation tariff and instead removing the export tariff; which DECC considers would not achieve the objective of cost control nor pay a fair price for the electricity exported. The notion of only paying tariffs until the installation and financing costs had been repaid was suggested; DECC considers this to be administratively complex and susceptible to gaming or perverse incentives. It was also noted that in certain parts of the country, grid constraints mean that it is not possible for FITs generators to export to the grid, therefore rendering them unable to receive the export tariff (the examples given were Orkney, Shetland, parts of Cornwall and parts of Wales).

### **Government decision**

2.116. Government does not intend to implement a decision at this stage on the long-term future of the FITs scheme. Government's view is that keeping generation tariffs available, within a system of caps where declining tariff trajectories provide a path for certain technologies to become less reliant on subsidies, offers an opportunity for only the export tariff to be available for new generators once the cap has been used up. Government will consider the future of the export tariff but believe at this stage that it may need to be adjusted for new applicants to better reflect the costs and benefits of renewable energy generation across the whole grid.

## Question 14 - Competition

Consultation question	813 unique responses
Q14	Do you have any views on the use of competition to prioritise applications within a system of caps? What do you think are the advantages and disadvantages of this approach? What forms of competition may be appropriate and is this different for different sorts of installations? Please provide your reasoning.

### Summary of responses

2.117. We sought views on the use of competition to prioritise applications within a system of caps. Responses to this question were received from 31% of respondents, with the majority of responses coming from the renewables industry and private individuals.

### Opposition to competition

2.118. The vast majority of respondents were against the introduction of competition to the FITs scheme in any form. This was for a variety of reasons, including that it would create a damaging level of uncertainty which would ultimately increase costs, that it would result in unrecoverable sunk costs for those unsuccessful at the end of a competitive round, and that it would create additional administration costs that could instead be used to fund tariffs or research and development. A high number of these respondents cited unfairness and the potential for distorted outcomes if domestic and community installations were required to compete against larger scale commercial projects for funding. Government notes that any competitive process would have to be designed to ensure that all participants could compete fairly.

2.119. A small number of respondents believed competition would raise safety concerns pushing installers to cut corners in order to ensure installations were completed quickly and to give the highest returns to potential generators. There were also a number of general comments around renewables requiring co-operation rather than competition and that keeping the FITs scheme as simple as possible should be priority (competition being viewed as adding complexity), with comparisons drawn to the complexity involved in schemes such as The Green Deal and Energy Company Obligation (ECO). A few respondents claimed that the proposed generation tariffs were already so low that competition was not worthwhile.

### Support for competition

2.120. There was limited support for the introduction of competition, chiefly because it could improve value for money through driving tariffs down. A lottery system was also suggested as a way to reduce costs and complexity, as was using a "first come first served" system to allocate tariffs. A variety of

criteria to be used to assess bids within a competitive process were suggested, including emissions saved, location (for example, projects that help reduce local grid constraints rather than add to them) and wider social benefits (e.g. installations linked to social housing projects). However, there were some concerns that a competition based on resource efficiency (e.g. local solar irradiation levels) could disadvantage projects located in more northerly regions.

2.121. There were also requests for exemptions or preferential treatment for community projects, domestic projects, AD projects (for example, those AD projects that do not use crops as feedstocks as it was argued this increases food prices, or projects that provide a useful service through processing locally produced waste), hydro projects and rooftop solar PV projects. Some respondents noted that the introduction of competition would require the re-introduction of pre-accreditation or a similar process, as the level of uncertainty would be too high to incentivise investment otherwise. Other respondents stated that competition could work only for larger installations, with some respondent suggesting that projects of the scale 1MW to 5MW be included instead within the CfD regime, as long as more frequent CfD auctions were held. The introduction of a “CfD Lite” regime was also suggested.

2.122. Alternatively, respondents suggested that competition could take place at an aggregated level through installers or suppliers, or at a local level through a process managed by each Local Authority. The most frequent format of competition suggested by respondents was Dutch auctions, starting with a high asking price which is lowered until some participant is willing to accept the auctioneer's price, or a predetermined reserve price, although this was only mentioned by a few respondents. There was limited support for competition within specific technology and degression bands, although a few respondents preferred completely open competition between all technologies and degression bands.

### **Government decision**

2.123. The purpose of this question was to seek initial views about the potential introduction of competition to prioritise applications within a series of caps. At this stage Government has decided not to take any steps towards introducing competition. This is principally because implementation would be extremely difficult within the current scheme structure and could add significant complexity to the other cost control measures taken in this decision.

2.124. However, Government believes that competition in the long-term is a good thing to deliver better value for money and reserve the right to change this position at a later date, subject to future developments and consultation on a specific proposal.

## Question 15 – Scheme Focus

Consultation question	1,850 unique responses
Q15	Should FITs be focussed on either particular technologies or particular groups (e.g. householders)? Please provide your reasoning.

### Summary of responses

2.125. There were 1,850 unique responses to this question from a wide range of respondents including members of the public, community groups, trade associations, renewable energy companies, NGOs, public bodies and academia. Of the unique responses, around 35% were in support of focussing the scheme in some way, Just over 20% disagreed with the concept of focussing on any particular groups or technology, whilst 45% didn't know whether it was a good idea to focus the scheme or not or did not give a clear view.

### Agreement with proposal

- 2.126. Of the unique responses supporting a re-focussing of the scheme, the highest proportion of respondents believed that the scheme should be focussed towards households and small scale deployment. This view was predominantly put forward by individuals and renewable energy companies. A number of reasons were put forward but most believed this aligns with the core purpose of the scheme and household scale generation offered the best chance of large scale roll-out.
- 2.127. A significant number of those who agreed with a scheme focus thought that the scheme should be focussed toward community projects. Just under half of those expressing this view came from community focussed organisations with further representation coming from individuals. Community projects were also often referred to as schools, public buildings and social housing projects. Many believed that community projects offered wider benefits than commercially lead projects and again thought the core aims of the scheme should not be to incentivise commercial entities to make profit. Options on how to do this were also put forward including raising tariffs for communities, restricting the scope of the scheme to communities and some mentioned re-introducing pre-accreditation for community groups.
- 2.128. A similar number of responses, principally from individuals and community groups, thought the scheme should focus on both householders and community projects often raising similar points to those set out above. In terms of focussing the scheme towards particular groups, there was some representation from respondents such as local authorities or housing associations to focus on social housing or vulnerable groups including the fuel poor and there were a small number of mixed views on whether the rent-a-roof model was something to focus on or avoid.

- 2.129. Some respondents thought the scheme should be focussed purely towards particular technologies or ambitions. A smaller number of those who agreed the scheme should be focussed, thought Government should target those technologies that offered better value for money – sometimes mentioning larger scale wind and solar. A similar proportion of respondents believed the scheme should focus on emerging technologies or those that need support now to drive down costs – small scale tidal and occasionally micro CHP were cited. A similar proportion suggested Government should focus on all scales of solar.
- 2.130. There were mixed views across a number of other respondent on focussing towards specific technologies with suggestions of focussing on one particular technology such as retrofit solar, new build solar, large building mounted solar, all non-standalone solar, hydro, AD, Micro CHP. Other minority views included focussing the scheme towards those sectors where there is most likely to be self-consumption, with others suggesting the scheme focussed on storage or base load. This was seen to be an approach which would mitigate concerns of intermittency and security of supply.
- 2.131. A small number of respondents also suggested reducing the length of the scheme to 18 months – two years believing the budget would be better distributed over this timeframe rather than over three years.

### **Disagreement with proposal**

- 2.132. Of those respondents who stated that the scheme should not be refocused, most believed that the scheme should support all technologies and user groups which can help tackle climate change and deploy renewables at all cost. A small number of people also assumed that focussing the scheme could be more difficult to administer. Others suggested that by narrowing the scheme Government would prevent a diverse mix of technologies coming forward in future or potentially discriminate against certain regions as some technologies are better suited to certain geographical conditions.
- 2.133. A small proportion of those respondents who stated they disagreed with the proposal also gave a view on how they would focus the scheme if that was the decision made by Government. A range of views were expressed with most implying the scheme should be focussed on non-energy professionals such as households and communities.

### **Neither agreed nor disagreed**

- 2.134. Of the respondents who said that they didn't know whether the scheme should be re-focussed a small number made comments that actually supported the principle of refocussing the scheme towards householders and/or communities, again with a minority suggesting that the scheme should be refocused towards a particular technology.

## Government decision

- 2.135. Despite some support to focus the scheme at this stage, Government does not propose to restrict the scope of the FITs scheme immediately. The primary aim of this consultation has been to introduce cost control measures as soon as possible to ensure the long term viability of the FITs scheme. Government wishes to avoid any change which may require DECC to notify the EU Commission and incur a delay to the implementation of the cost control measures outlined in this document.
- 2.136. Government does not intend at this stage to change the remaining duration of the scheme as suggested by some respondents but will keep this position and the possibility of future refocusing under review, following implementation of cost control measures.

## Question 16 - Extensions

Consultation question		1772 unique responses
Q16	Do you agree or disagree with the proposal to remove the ability of installations to extend their capacity under the FITs scheme? Please provide your reasoning	

## Summary of responses

- 2.137. We sought views on the proposal to remove the ability of all (i.e. both existing and future) installations to extend their capacity under the FITs scheme. Responses to this question were received from 1772 respondents; of these 10% agreed with the proposed changes, 46% disagreed, and 44% neither agreed nor disagreed. The majority of respondents were from within the renewables industry and private individuals. The most frequent response was to disagree with the proposal and state that the current system should be retained. While many respondents responded more generally objecting to any action that was seen to constrain the deployment of renewable energy, a wide variety of specific objections were cited.

## Agreement with the proposal

- 2.138. There was some limited support for the proposal. The main reason cited was that, assuming a system of caps was in place, removing the right for existing installations to extend would allow a greater number of new installations to deploy, spreading the benefits of the FITs scheme more widely. A moderate number of respondents stated that extensions had contributed to triggering depressions in the past and that this was undesirable as it unfairly impacted on new generators compared to incumbent generators. Some respondents stated it would still be viable for extensions to instead deploy as separate installations, while others favoured limiting support through FITs as much as possible for reasons of cost control and saw removing the right to extend as a logical contribution to achieving this.

2.139. A limited number of responses cited the potential negative impact extensions could have on the environment and local visual amenity, stating that extensions were often a way for developers to bypass planning permission rules by referring to the installation already in place. A few respondents noted that removing the right to extend would encourage developers and installers to optimise the installation at the time of original deployment. Some suppliers stated that processing applications for extensions was more administratively complex and expensive than processing applications for new installations; these additional costs are then passed through to the LCF as part of suppliers' qualifying FITs costs.

### **Disagreement with the proposal**

2.140. Respondents in disagreement suggested extensions often represented good value for money (for developers) as economies of scale were likely to present, with grid connection costs the example most often referred to. The benefit of bringing additional investment to the supply chain was also mentioned. A frequent response was that extensions formed a natural part of the life cycle of a FITs installation. For example, extensions could occur for reasons such as more capital becoming available for investment after the success of the initial installation or because a business was growing, increased confidence after positive experiences of the original installation, changes in circumstances beyond generator control such as grid constraints being removed, businesses taking on additional buildings or additional roof space, where local demand has increased, or where improvements in technology allow more efficient use of the renewable resource available. A few respondents stated that not being able to deploy in stages would prevent some installations from deploying at all, while others stated that an extension required less additional paperwork than setting up a new installation which represented an administrative saving to the generator.

2.141. Another frequently cited objection was the assertion that applying the proposal to existing installations, rather than future installations only, was unfair as it was retrospective. The main reason provided for this was that investment decisions related to extensions may already have been taken or that projects had been specifically designed and financed with extensions in mind. Particularly noted were hydro installations, AD installations, community projects that planned to extend as more capital is raised, and solar PV projects which are usually built from modular components.

2.142. A number of alternate proposals were put forward by respondents. For example, it was suggested that the right to extend be removed only after a grace period, for example of six or twelve months, or that it should be retained for those able to provide evidence such as invoices of investment decisions already taken. Alternatively, extensions could receive the export tariff only or a separate but lower generation tariff than available for new installations at that time. Other suggestions included allowing only one extension for each installation or requiring a certain period of time to pass (for example, one year from the date of accreditation or the date of the most recent extension, whichever is later) before an extension be allowed. On a

linked point, some respondents noted that this change could impact disproportionately on domestic and community projects because larger scale and commercial projects would be more likely to have sufficient access to capital to deploy at full scale at the time of the original installation.

2.143. Some respondents requested that the merits of proposed extensions be considered on a case by case basis in the future; Government considers that this would be too administratively complex and expensive to be feasible in practice. Government also believes that suggestions that extensions only be allowed where installations reach a certain level of efficiency would be similarly too complex and expensive to administer.

2.144. Exemptions from this proposal were variously requested for AD projects, PV projects, <10kW projects, community projects, domestic projects, projects where the electricity produced was used onsite, hydro projects, <100kW projects, or projects that ease local grid constraints. A number of specific challenges were identified around AD projects, for example where livestock numbers on projects based on farms could increase and so would waste feedstocks. This was also the case for hydro, where respondents explained the geographical constraints impacting on the deployment of hydro and that preventing extensions for hydro would represent an inefficient use of resource, particularly given the longevity of hydro installations. Respondents identified the need to maintain essential clean water supplies to consumers as a barrier to hydro projects deploying all in one go, and raised concerns around unsupported extensions and Article 17 of the most recent FITs Order. It was also suggested that if extensions were removed from the FITs scheme then extensions above 5MW should instead be permitted. Some stakeholders noted that given the low generation tariffs proposed, extensions would be the only viable way of increasing hydro capacity under FITs, because of the investment already undertaken, and therefore the right to extend should remain.

2.145. Some respondents stated that it should not matter to government whether the new capacity comes from an extension or from a new installation entirely; however Government considers that allowing a larger number of generators to participate in the scheme would help promote one of the scheme's objectives of empowering people and giving them a direct stake in the transition to a low-carbon economy. Other respondents noted that extensions to existing schemes would be likely to have less environmental or visual impact, and more likely to be acceptable to the public, than a new site. A few respondents stated that this proposal was a disproportionate response to a very minor problem, or that the costs of gaining planning permission for extensions had not been factored into the proposal.

2.146. On a linked point, some respondents noted that DECC's proposed changes to the tariff bands had reduced the risk of gaming through extensions and so the removal of the right for all installations to extend was no longer necessary. Further, a few respondents noted that removing the right to extend would increase the incentive for generators to deliberately fail to make the appropriate notifications when, for example, additional solar PV panels had been installed. Alternatively, to reduce the potential for gaming, it



was suggested that an extended installation's tariff should be determined by the overall size of the original installation plus the extension but at the tariff rate available at that overall size at the time of the extension. Some respondents noted that removing the right to extend could potentially raise issues around, for example, the replacement of solar PV panels with more efficient panels (either because of wear and tear or because of a sub-optimal original installation) and whether this small increase in capacity would be treated as an extension and not be eligible under the FITs scheme.

2.147. A few respondents noted that given that the government is in favour of a long-term move to electrify heating and transport, and given the potential benefits of storage to the system coupled with falling storage deployment costs, that it would be logical to retain the right for installations to extend as their demand for electricity potentially increases in the future. Others noted the potential impact for businesses seeking to meet corporate social responsibility (CSR) targets in part through deployment through the FITs scheme.

2.148. A few respondents stated that their response to this question would be different depending on the decisions taken around implementing a system of caps as part of this FITs Review, namely that if caps were not introduced then the right to extend should be retained, and if caps were introduced then the right to extend should be removed.

### **Government decision**

2.149. Government has decided that the right to receive a generation tariff for extensions should be removed for all installations. Whilst encouraging the deployment of renewable installations, the scheme should provide value for money for the consumer rather than the generator and extensions have in most cases provided generators an opportunity to receive a feed-in tariff that provides a higher rate of return on investment than EU State Aid approval provides for. This measure will therefore incentivise generators to install the maximum capacity achievable and eliminate the potential for generators to lock in higher tariffs for some of the capacity installed.

2.150. Government does not propose to introduce a grace period as suggested by some respondents. Government has considered the period of notice, since the launch of the consultation, sufficient time to accredit an extension in advance of the new capped scheme, although Government acknowledges that there may be some installations which could suffer detriment by the decision.

2.151. In asking whether the policy could be achieved in a different way, so that the detriment to individuals is avoided or reduced, Government did look at removing the right to extend just for new entrants to the scheme. But this would still lead to risking overcompensation by accrediting extensions under the current rules, and also eating up the tariffs available under the band for new installations of equivalent size.

2.152. However, Government has made an amendment to the definition of a hydro site in response to concerns that installations located several miles

apart were previously considered as extensions. The definition has therefore been revised to treat these projects as new installations rather than extensions.

2.153. Therefore Ofgem will continue to accredit any extension that commissions before the 15 January 2016. For installations with extension commissioning after the pause date the licence conditions have been amended so that suppliers may still pay FITs in respect of their electricity generated by the accredited part of the installation. The installation would of course still benefit from the electricity produced and consumed onsite by the unaccredited extension.

## 3. Metering export and generation – smart meters and other options

- 3.1. As stated in the consultation document, Government has been clear since launching the FITs scheme that the intention has been to use metering for the export tariff and that the deemed approach was a temporary measure that would be used until the functionality of smart meters, once they became available, was able to be utilised.
- 3.2. Questions 17 and 18 asked about options for introducing smart (or, for smaller non-domestic consumers in some cases, advanced) meters<sup>16</sup> to FITs. The questions presented alternative options and so are dealt with together here.

### Question 17 – Obligation for existing and new generators to accept a smart meter

Consultation question		1862 unique responses
Q17	Given our intention to move to fully metered exports for all generators, do you agree with the proposal that new and existing generators should be obliged to accept the offer of a smart meter (or advanced meter) when it is made by their supplier? Please provide reasoning for your response.	

### Question 18 – Obligation for generators to have a smart meter before applying for FITs

Consultation question		1807 unique responses
Q18	Do you agree or disagree with the alternative proposal that new applicants must have a smart meter (or advanced meter) installed before applying to the FITs scheme, with existing generators being obliged to accept the offer of a smart meter (or advanced meter) when it is made by their supplier? Please provide reasoning for your response.	

### Summary of responses

- 3.3. Almost 70% of respondents answered question 17, with a similar amount answering question 18. Of those who answered question 17, about 40% agreed with the proposal in it, with about 16% disagreeing. The remainder

<sup>16</sup> Further information on smart meters is available on the [www.gov.uk](https://www.gov.uk/guidance/smart-meters-how-they-work) website: <https://www.gov.uk/guidance/smart-meters-how-they-work>

responded with 'Don't know', although some of these also provided comments for or against the proposal. Of respondents who answered question 18, about 20% agreed with its proposal, over 30% disagreed and the rest replied with 'Don't know', again with some of the latter providing comments for or against the proposal.

## Question 17

### **Agreement with proposal**

- 3.4. Comments from those who agreed with the proposal included that it was reasonable only to pay for the actual amount of energy exported. Furthermore, some felt that consumers would benefit from knowing what was actually being exported and that it might encourage people towards ensuring more onsite use of the electricity they generate.
- 3.5. A number of respondents agreed with the proposal in respect of new generators, but considered that it should not apply retrospectively to existing generators as it was not part of their original terms and conditions to accept a smart meter when signing up to the scheme. Furthermore, some respondents claimed that it would be unfair to have to pay for a smart meter.

### **Disagreement with proposal**

- 3.6. Concerns around smart meters more generally were raised by some respondents. These included: health concerns around the radio waves generated by smart meters, privacy impacts of the transmission of energy use/generation data; and risks around cybersecurity as smart meters can be accessed remotely.
- 3.7. Technical concerns were also raised, principally that smart meters might not be able to work everywhere in the country, for example in very remote rural areas, because of lack of communications coverage.
- 3.8. Furthermore, some respondents highlighted concerns about the timing of introducing any smart meter requirement, noting the current state of readiness of the smart meter legislative and administrative frameworks to deal with use of the export functionality of smart meters.
- 3.9. It was also suggested that the establishment of a requirement to accept a smart meter under FITs could possibly run contrary to the position that consumers have the right to refuse a smart meter, and that the proposal might have a detrimental impact on consumers' perception and acceptance of the rollout. The issue was also raised of the need for coordination between a consumer's energy supplier, who would install the smart meter, and their FIT Licensee, who would need to check compliance with the proposed obligation, where they were two different entities. It was suggested that any smart meter requirements in FITs should wait to be introduced until the Data & Communications Company (DCC) was operational. An additional point raised related the provision of half-hourly export data and the settlement process.

- 3.10. Other concerns highlighted included circumstances where retention of smart services were not being guaranteed following change of supplier once a smart meter was in place and some installations possibly requiring additional costs to be incurred which could fall outside of the 'reasonable steps' that suppliers would need to take to install and such costs might be placed directly onto the recipient of the smart meter.
- 3.11. It was also highlighted that, in some cases, generators might see their export payments increase following a switch to metered export because they exported more than the deemed amount.
- 3.12. Queries were also raised about how existing generators who already had a smart meter (but who were not using its export metering functionality), or a standard export meter would be treated were the proposal to be implemented.

### Question 18

- 3.13. Question 18 set out the alternative proposal of requiring new generators to have a smart meter in place before applying to the FITs scheme, with existing generators having to accept a smart (or advanced) meter when offered one by their supplier. On balance, there was a greater degree of opposition than support for this proposal.

### Agreement with proposal

- 3.14. Of those that agreed with the proposal, several respondents expressed support for smart meters in general and not necessarily a preference for the proposal. Some of those who agreed also believed that the obligation would support smart meter deployment.
- 3.15. Many respondents put forward alternative approaches or conditions:
- The obligation should apply at the point of installation of generating equipment and not before the submission of a FITs application;
  - Withhold payment until a smart meter is installed;
  - Delay the requirement for a smart meter by, for example, 12 months after commissioning of the renewables installation.

### Disagreement with proposal

- 3.16. Amongst those that opposed the proposal, a range of challenges and concerns were presented. Three common themes that were raised were:
- i. Concerns that smart meters themselves are not ready to provide the functionality required;
  - ii. Potential delays in the smart meter rollout may stifle FITs deployment;
  - iii. Lack of clarity on who would pay for the smart meter if it became obligatory.

- 3.17. Some respondents disagreed with requiring existing generators to install a smart meter as it would be a retrospective change, but were open to the idea of imposing smart meters on new installations.
- 3.18. A few respondents raised concerns with:
- i. Incompatibility with the Balancing and Settlement Code (BSC);
  - ii. The need for suppliers to develop 'smart tariffs';
  - iii. Links with a distributed energy system; and
  - iv. Lack of affordable communication services, like broadband connection.
- 3.19. Other claims from respondents included that the proposal may result in additional costs to generators and thus they may simply not claim the export tariff.
- 3.20. As with some responses to question 17, concerns were also raised regarding health, privacy, cybersecurity and the ability to switch supplier once a smart meter was in place.

### **Government decision**

- 3.21. Government remains committed to ending deemed exports in favour of metering for the FITs export tariff. However, it is not proposed to introduce smart meters requirements at this stage. Government will continue to consider the options for doing so and will take on board the responses received to this consultation in building up more detailed proposals for a future consultation.
- 3.22. In response to concerns about the cost of installing a smart (or advanced) meter, as stated in the consultation document there must be no upfront cost placed on the customer for the installation of smart metering equipment. Therefore, under the proposal in question 17 regarding acceptance of the offer of a smart or advanced meter, there would be no direct cost to the consumer, as the export meter would form part of the smart metering rollout.
- 3.23. On the current lack of mobile communications coverage in some parts of the country, the DCC's Communication Service Providers have committed to network coverage targets of 99.25% of premises in Great Britain by the end of 2020 (the end of rollout) and will provide coverage to at least 80% of premises within each region by 2016 (the start of live service).
- 3.24. On claims that smart meters already installed cannot perform everything they were expected to do and lose smart functionality upon changing supplier, some energy companies have started installing smart or smart-type meters during the initial rollout stage using their own communications systems. However, most households will have smart meters installed during the main installation stage, which is due to commence in 2016, when the DCC infrastructure enabling communications between smart meters, energy suppliers and other authorised parties starts operating.

- 3.25. Furthermore, DECC accepts that some generators may see an increase or decrease in their FITs export tariff payments following a switch to metering because they export an amount different to the deemed amount. Those consumers who would get reduced export payments as they export less than 50% will already be seeing the benefit of lower overall energy costs since they will be importing less electricity from the grid and the retail price for it is higher than the FITs export tariff. DECC considers this approach is compatible with the potential rollout out of storage.
- 3.26. Finally, DECC has previously provided information online relating to safety and privacy around smart meters<sup>17</sup>.

### Question 19 – Remote reading of generation meters

Consultation question		771 unique responses
Q19	Do you have any views on possible approaches to introducing remote reading for generation meters? Please provide reasoning for your response.	

### Summary of responses

- 3.27. There were 771 respondents who provided comments on this question. Approximately 50% agreed with the concept of introducing remote reading for generation meters, although some caveats were raised. About 25% of respondents specifically disagreed with the concept.

### Agreement with proposal

- 3.28. Several of those who agreed said that remote reading would allow for continuous monitoring of performance of installations, auditing generation levels, a reduction in the cost of processing meter readings, the removal of the need to send manual readings and the removal of the need to undertake frequent site visits.
- 3.29. Some respondents also said that it tied in with the general trend of moving towards the ‘internet of things’. Also, it was claimed that remote reading would especially help with community schemes or where generators ran multiple installations (e.g. housing associations). Several responses mentioned that remote generation reading was already being used (e.g. the ACCESS project in Scotland<sup>18</sup>) and some highlighted a variety of businesses that already offer remote reading services.
- 3.30. Ways of remote reading were suggested, including using the smart meters framework, the general use of wifi, or existing mobile communications technologies (e.g. GPRS, 3G, 4G), and the use of (wired) broadband.

<sup>17</sup> <https://www.gov.uk/guidance/smart-meters-how-they-work>

<sup>18</sup> <http://www.localenergyscotland.org/funding-resources/funding/local-energy-challenge-fund/2014-phase-one-projects/access-assisting-communities-to-connect-to-electric-sustainable-sources/>

- 3.31. Several of the respondents who agreed with the concept of remote reading set out caveats. These included associated costs, privacy, security, minimum standards to prevent things like tampering or ensuring correct sizing and installation of remote reading packages, lack of mobile reception in rural areas (in the case of using smart meters), ensuring accuracy and ensuring 'fair treatment' of consumers and generators. The need for generators to continue to be able to view meter readings themselves was also highlighted. Some also felt that it should only be applicable to new applicants to FITs, with it remaining optional for existing generators.
- 3.32. A few respondents felt that, given the potential additional costs, remote reading should not be required for the smallest installations, with 10kW or 100kW being suggested as the point from which it should be brought in.

### **Disagreement with proposal**

- 3.33. Those respondents who disagreed with the concept of remote reading raised similar issues to the above-mentioned caveats, such as associated costs, privacy, security, health concerns around wireless communication, the problem of interactions between energy supplier and FIT Licensee where they are separate entities, the impact on jobs from automation and the lack of mobile reception in rural areas (in the case of using smart meters). Others felt that the current process of providing manual readings was fine. Some respondents also felt that it should be left to industry to decide whether to offer remote reading and that generators should be left to decide whether to take it up. A few felt that any decision on remote generation reading should wait until smart meters have been fully rolled out in order to learn lessons from it and to take advantage of the framework that would then be in place.

### **Government decision**

- 3.34. Overall, there appears to be a majority of support from respondents for the concept of introducing remote generation reading. However, several issues were identified that would need to be resolved before it could be implemented. Many of these chime with the reasons given by others for disagreeing with the concept.
- 3.35. As with the proposals for moving away from deeming for the export tariff covered by questions 17 and 18, Government does not intend to introduce any immediate change to the way generation meters are read. Government may consider exploring it further in the future. Should it be decided to develop detailed proposals on introducing to FITs universal remote generation reading, they will be consulted on in more detail before any decisions are made.



## 4. Effects off the Feed-in Tariffs scheme on grid management and costs

### Question 20 – Notification to the DNO

Consultation question		1793 unique responses
Q20	Do you agree or disagree that recipients of FITs should be required to notify the relevant DNO of new installations as a condition of the scheme?	

4.1. Government sought views on using FITs to ensure that Distribution Network Operators (DNOs) are always notified of new small-scale installations to help with network management and planning. Government notes that, currently, installers were required to notify the DNO when a new installation has been installed, but that this did not always happen in practice. It was recognised that the new EU Requirements for Generators code also makes it mandatory for all new installations over 800W to be notified to the DNO by early 2019 and that Ofgem was considering the release of FITs data to DNOs. Government sought views on whether a requirement should be included under FITs to help ensure notification happened routinely as the current process intended.

### Summary of Responses

4.2. Responses to this question were received from 68% of respondents. Of those respondents who expressed a firm view 76% agreed that this should be a requirement under FITs with 24% disagreeing.

### Agreement with proposal

4.3. Those who agreed this should be a requirement felt that it would help with network management and security as well as providing useful information for regulation and policy making. Many agreed that installers should be notifying the DNO already and several installers said that they already did this. There were concerns among those who agreed that it might be onerous or unnecessary for domestic installations and suggested that a threshold be introduced below which notification would not be required. Many also agreed on the condition that the requirement was not administratively burdensome. Others sought reassurance this would be notification to the DNO rather than requiring DNO approval.

## Disagreement with the proposal

4.4. Those respondents who disagreed with the introduction of the requirement gave a number of reasons. Some felt that the impact on the network of smaller installations was minimal, if any at all, and therefore it was not necessary for the DNO to have this information. Others argued that many FITs recipients (particularly for domestic installations) would not have the capability to inform the DNO and that it should continue to be a requirement on installers. There were also concerns about the potential costs for submitting this information. Many respondents felt that the existing requirements should be fully enforced or that the Microgeneration Certificate Scheme database should be used or that Ofgem should release the data to DNOs.

## Government decision

4.5. Government would like to take the opportunity to remind installers of the existing requirement for installations to be notified directly to the DNO. This is set out in legislation<sup>19</sup> and reflected in Engineering Recommendations<sup>20</sup>. Although individually small installations would not have a significant impact on the network, cumulatively they can have an effect. The notification of installations assists DNOs in planning and managing their networks more efficiently bringing benefits to all users and reducing consumer bills. Government will embed this notification requirement in the FITs process, for example by including it in the FIT application form, process checklist and relevant guidance notes.

4.6. In addition, notification to the relevant network operator of all generation greater than 800W will become mandatory under the new European Requirements for Generators code. An industry working group has been established to implement this code, under the standard industry code governance process. This group will work with stakeholders to design an appropriate notification and compliance process. Government would want this to be implemented in a timely manner and by spring 2019 at the latest

4.7. Since DECC published the FITs consultation, Ofgem has agreed to release certain FITs installations data from its Central Feed-in Tariff Register to those DNOs who have requested the data under the Environmental Information Regulations 2004 (EIR). This information included the Meter Point Administration Number (MPAN), technology type, installation type, installed capacity, declared net capacity, commissioned date, and export status (limited to “export” or “no export”). Ofgem continues to work with other DNOs who have expressed a similar interest in making requests for FITs installations data under the EIR.

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<sup>19</sup> The Electricity Safety, Quality and Continuity Regulations 2002  
[http://www.legislation.gov.uk/ukxi/2002/2665/pdfs/ukxi\\_20022665\\_en.pdf](http://www.legislation.gov.uk/ukxi/2002/2665/pdfs/ukxi_20022665_en.pdf)

<sup>20</sup> See pages 20-23 of the Energy Network Association’s “Distributed Generation Connection Guide”  
[http://www.energynetworks.org/modx/assets/files/electricity/engineering/distributed%20generation/March%202015/G83%20Single%20Full%20June%202014%20v2\\_Comms\\_Red.pdf](http://www.energynetworks.org/modx/assets/files/electricity/engineering/distributed%20generation/March%202015/G83%20Single%20Full%20June%202014%20v2_Comms_Red.pdf)

## Question 21 – Additional grid requirements

Consultation question		1786 unique responses
Q21	Do you agree or disagree the FITs scheme should be amended to include requirements that help mitigate and limit the impact on grids such as requiring generation to be co-located with demand or storage?	

4.8. In the consultation, Government explained that some generation connected to the distribution networks was, at times, causing issues on the transmission network such as high voltage and also reducing available distribution network capacity. Government sought views on some stakeholder suggestions that new FITs installations should be required to locate close to demand, so that generation can primarily be used on-site rather than exported to the grid or that new installations should be required to incorporate storage devices to limit the level of export and/or equipment to mitigate adverse impacts on the network.

### Summary of responses

4.9. Responses were received from 68% of respondents. Of those who expressed a firm view 38% agreed with the suggestion and 62% disagreed.

### Agreement with proposal

4.10. Those who agreed felt that co-location would reduce the network infrastructure required to accommodate new installations and be more efficient for the network, for example through lower losses. A significant number felt that, while this should be looked at, it was not appropriate to implement now due to the cost of storage. Others agreed but on condition that it was accompanied by incentives or other support for storage or for FITs installations to generate at certain times of the day.

### Disagreement with proposal

4.11. Of those respondents who disagreed, some felt that co-location was already incentivised for FITs recipients because savings made on purchasing electricity were far higher than export tariffs. Many felt that this would be too complex and expensive, particularly for domestic installations, micro-generation and community schemes. It was further argued by some that storage solutions were too expensive and that it was not always feasible to locate FITs installations with, or close to, demand. There was support for this to be encouraged and incentivised rather than required. A recurring theme in responses was the view that the network should adapt to accommodate FITs installations rather than requirements being placed on the generators to mitigate their impacts. This could be achieved by the network being redesigned and upgraded with suggestions that this be

funded by all users (socialised), Government, suppliers or network companies.

- 4.12. Arguments were also put forward for alternative ways to deliver the same outcome such as new market arrangements or time of use tariffs. It was further argued that existing grid governance arrangements already allowed DNOs to introduce such requirements by revising engineering standards and that the future EU Requirements for Generators Code would consolidate this.

### Government decision

- 4.13. Government has no plans at present to introduce requirements under the FITs regime to mitigate the impacts of FITs installations on the electricity system, such as co-location with demand or storage. Government also believes that action can be taken to mitigate these impacts. DECC, Ofgem and network companies will continue to explore this area.
- 4.14. Work currently being taken forward includes a joint programme of work with Ofgem intended to manage the transition to a smart energy system. Smarter, more flexible, energy solutions (such as storage and demand side response) could help to manage the energy system more cost-effectively from a whole system perspective. Locally-generated energy supported by storage, interconnection and demand side response, offers the possibility of a radically different energy system.
- 4.15. As set out in DECC's recent publication "Towards a Smart Energy System",<sup>21</sup> Government is considering ways to harness smart technologies through the energy system in the future, and specific measures to enable the market for storage and demand side response. Government will be consulting formally on this area in the spring. This will build on work by the Smart Grid Forum<sup>22</sup> and Ofgem's flexibility project<sup>23</sup> and will look at the following areas:
- Removing regulatory barriers to smart solutions;
  - Delivering clearer price signals to allow more flexibility from consumers;
  - Catalysing further innovation so new solutions can emerge and compete in the market;
  - Examining the need for more fundamental changes, including considering what system functions may be required in a future smart energy system to maximise benefits while managing the risks; and how roles and responsibilities may need to change in light of these; and

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<sup>21</sup> <https://www.gov.uk/government/publications/towards-a-smart-energy-system>.

<sup>22</sup> A DECC/Ofgem stakeholder group which engages on the challenges and opportunities posed by the move to a low-carbon energy system, particularly for electricity network operators <https://www.ofgem.gov.uk/electricity/distribution-networks/forums-seminars-and-working-groups/decc-and-ofgem-smart-grid-forum>

<sup>23</sup> [https://www.ofgem.gov.uk/sites/default/files/docs/2015/09/flexibility\\_position\\_paper\\_final\\_0.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2015/09/flexibility_position_paper_final_0.pdf)

- Developing a better understanding of the costs and benefits associated with a smart energy system.
- 4.16. As the system changes it needs to be as productive, secure and cost-effective as possible. There is a strong case for greater independence for the System Operator to allow it to make the necessary changes. So, alongside the National Infrastructure Commission, Government will work with National Grid, Ofgem and others to consider how to reform the current System Operator model to make it more flexible and independent.
- 4.17. The EU Requirements for Generators code also includes various elements which are designed to enable the System Operator to manage the impact of generation connected to distribution networks. For example, new installations of greater than 1MW (threshold to be confirmed) will need to have the inbuilt capability to respond to commands from the System Operator, e.g. to reduce power output. This regulation will apply from spring 2019, and any equipment ordered after spring 2018 will need to be compliant.

### Question 22 – Costs to the network

Consultation question		1785 unique responses
Q22	Do you agree or disagree that the FITs scheme or wider networks regime should be amended to ensure generators pick-up the costs they impose on the network?	

- 4.18. In the consultation document Government sought views on the suggestion from some stakeholders that changes be made through FITs, or wider network regime, to ensure that small scale generation paid for the costs it imposed on the system.

### Summary of responses

- 4.19. Responses were received from 68% of total respondents. Of those who expressed a firm view 19% agreed with the suggestion and 81% disagreed.

### Agreement with proposal

- 4.20. Those who supported the suggestion felt that it was not fair that others should bear the network costs caused by FITs recipients. Some felt, though, that this should not apply to the smallest generators such as domestic installations.

### Disagreement with proposal

- 4.21. Of those who did not support the suggestion there was a strong feeling that many FITs recipients already paid these costs through the connection charges particularly where these included a proportion of any wider network reinforcements needed to accommodate the project. Many also felt that only

looking at network impacts was too narrow and that the wider benefits of renewable generation should also be taken in to account. Many respondents suggested that there was a need to redesign and upgrade the network anyway and that FITs recipients shouldn't be paying for this. Some added that the costs should be socialised or funded by suppliers or network companies.

4.22. There were also suggestions that introducing such costs would be premature as well as unworkable with difficulties in fairly apportioning costs to individual installations (particularly the smallest) highlighted. Finally, many respondents suggested alternative means of managing these impacts such as encouraging the use of storage and demand side response, more onsite use of any electricity generated, and network companies deploying more cost effective and innovative solutions.

### **Government decision**

4.23. Government has no plans at present to include these costs specifically in the FITs scheme. Should this work provide justification for charging smaller scale generation connected to the distribution network for wider impacts on the system, Government would need to consider whether this would best be achieved through FITs or in other ways. However, distributed generation paying for its impact on the whole system is an area Government, Ofgem and National Grid continue to explore. This work includes:

4.24. As part of its flexibility project, Ofgem will be examining and feeding into European discussions on how future distribution charges may need to evolve. This, along with the other priority areas highlighted in Ofgem's flexibility project paper,<sup>24</sup> will form part of a broader DECC and Ofgem programme of work, intended to manage the transition to a smarter energy system<sup>25</sup>

4.25. DECC is also undertaking work to better understand the whole system impacts of different electricity technologies. This includes considering how these impacts can be allocated in a fair, cost-reflective framework in which mature technologies will need to compete in a market without subsidies. Government wants intermittent generators to be responsible for the pressures they add to the system when the wind does not blow or the sun does not shine. Only when different technologies face their full costs can be a more competitive market. There are different ways that this could be achieved from considering balancing charges to looking at export tariffs. For example, time-of-use export tariffs could in time provide an appropriate price signal. Government is listening to ideas from stakeholders on this and how Government can best ensure a level playing field between renewable and other generation technologies.

4.26. As referred to in the FITs Review consultation document, National Grid published an informal consultation on 6 August 2015 on the treatment of

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<sup>24</sup> [https://www.ofgem.gov.uk/sites/default/files/docs/2015/09/flexibility\\_position\\_paper\\_final\\_0.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2015/09/flexibility_position_paper_final_0.pdf)

<sup>25</sup> <https://www.gov.uk/government/publications/towards-a-smart-energy-system>.

transmission charging arrangements at exporting grid supply points (i.e. where energy flows from the distribution network onto the transmission network) which includes consideration of how these costs should be attributed.<sup>26</sup> The consultation closed on 31 October 2015. National Grid received 29 responses to the consultation which are now published on its website<sup>27</sup>. It is currently using these responses to inform its work and any potential changes that may be required and will discuss with industry in due course.

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<sup>26</sup> <http://www2.nationalgrid.com/UK/Industry-information/System-charges/Electricity-transmission/Transmission-Network-Use-of-System-Charges/Transmission-Charges-Open-Letters/>

<sup>27</sup> <http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=43925>



## 5. Ensuring sustainability for anaerobic digestion

5.1. The consultation set out sustainability criteria proposals for anaerobic digestion (AD) plant, but made clear that Government was not planning to implement anything immediately. The Government decision in relation to questions 23 – 25 covers the responses received across each of these questions and can be found at the end of question 25.

### Question 23 – Obligation to meet sustainability criteria

Consultation question	1662 unique responses
Q23	Do you agree or disagree that payments to newly accredited AD installations, at all scales, are conditional on meeting the proposed sustainability criteria? Please provide your reasoning.

### Summary of responses

5.2. Of those who responded to this question, the majority neither agreed nor disagreed with the proposal, while about 30% agreed with the proposal and less than 10% disagreed with it. Many of those who neither agreed nor disagreed also commented that they felt that ensuring feedstock for AD plant was sustainable was a good idea.

### Agreement with proposal

5.3. General comments in support of the proposal were in agreement about the need to ensure AD feedstock is sustainable, so as not to cause damage to the local environment or divert agricultural land from food crops.

### Disagreement with proposal

5.4. The comments from those that disagreed with the proposal ranged from whether any sustainability criteria should be applied at all, through points about the timing of when they should be applied and to whom, to whether the criteria were stringent enough.

5.5. Other comments received did not disagree with the concept of sustainability, but highlighted caveats to it. They included that any criteria should only be introduced after a more detailed further consultation following discussions with industry and that plant already complying with the RHI sustainability criteria should not also have to comply with any introduced for FITs (i.e.



where it is a combined heat and power (CHP) plant and therefore eligible for both schemes). Some felt that the criteria should apply to all AD plant, including existing generators.

- 5.6. There were comments related to the details and scope of the criteria, including that some energy crops were necessary for the working of AD plant, the criteria should allow grass to be used and that they should include a definition of acceptable feedstock and should look at maximum transport ranges and minimum percentages of waste as feedstock.
- 5.7. There was disagreement with the view that the current voluntary approach used by farmers was not working, but there was nonetheless agreement with the introduction of sustainability criteria on the basis that similar criteria apply in the Renewables Obligation (RO) and Renewable Heat Incentive (RHI) schemes.
- 5.8. Additional comments questioned whether the implementation of the criteria would have much of an impact on the scheme as a whole and that this should be balanced against the additional complexity that would be added to the scheme.
- 5.9. Questions posed in responses included whether, under the criteria, one would still be able to use feedstock from managed woodland. Another question was where the proposed percentage savings for greenhouse gas emissions came from. There was also a question about whether the 1MW threshold for when generators would have to conduct independent audits related to electricity (1MWe) or heat (1MWth).

### Question 24 – Proposed criteria

Consultation question	1577 unique responses
Q24	Do you agree or disagree that the proposed criteria and GHG trajectories set out above would set the necessary bar to meet our objective to incentivise the multiple benefits from waste-fed AD? Can you suggest alternative criteria which would help to achieve this goal? Please provide reasoning and evidence for your answer.

### Summary of responses

- 5.10. A large proportion of people commenting on this question neither agreed nor disagreed with the question as they did not understand it or did not have the expertise to provide a response. Approximately only 10% of total respondents to the consultation provided a comment to this question. Of those that did indicate a preference, slightly more people agreed with the proposal than disagreed.

### Agreement with proposal

- 5.11. Some of those who agreed commented that waste-only feedstock should be subject to the greenhouse gas criteria. There were also comments

on the need to focus on incentivising waste feedstock use rather banning energy crop use and that some energy crop use should still be allowed. In addition, the need to ensure easier access to food waste so that it can be used in AD was highlighted. Furthermore, a suggestion was made to develop a suppliers list to reduce administrative burdens and standardise evidence and assessment procedures.

### Disagreement with proposal

- 5.12. Many of the comments disagreeing with or caveating the proposal were similar to those in response to question 23. Some disagreed for more specific reasons such as a belief that all forms of subsidy should be removed and that technologies should stand on their own feet or the belief that the market should decide feedstock types. Others felt that AD would always be a greenhouse gas contributor and so should not be supported at all.
- 5.13. Comments were also made on the need to be clearer on what was meant by 'energy crops' in order to not bar some types of crop or feedstock that are beneficial to biodiversity. It was also felt that the criteria should include transport emissions.
- 5.14. Some respondents disagreed with the criteria because they felt that they did not go far enough to encourage waste feedstocks over energy crops, whilst others felt that encouraging AD should be paramount.

### Question 25 – Reporting

Consultation question		1596 unique responses
Q25	Do you agree or disagree with the proposed reporting system to underpin sustainability criteria? Please provide your reasoning.	

### Summary of responses

- 5.15. Most of those who responded to this question said they were neither for nor against the proposal. Only approximately 10% of all respondents to the consultation expressed a strong opinion, the majority of those in favour of the proposal.

### Agreement with proposal

- 5.16. Comments from respondents who agreed with the proposal included that it was a good idea to make FITs consistent with the RO and RHI schemes and to use a similar approach to reporting as those schemes. There was also agreement that smaller installations should have a reduced reporting burden.

## **Disagreement with proposal**

- 5.17. Comments from those who disagreed included that sustainability criteria and reporting on them was restricting generators, farmers in particular, from diversifying or innovating and that the market should decide the type of feedstocks used. Some respondents felt that AD needed time to bed in before introducing sustainability criteria. A few believed that the proposals were too onerous and should be simplified, whereas others suggested that the proposals did not go far enough.
- 5.18. Some comments queried whether FITs should introduce sustainability criteria at all since most plants were CHP and so already reported under the RHI's sustainability criteria.
- 5.19. Suggestions were made to reduce the reporting burden on small-scale installations. These included that plants under 100kWe using a majority non-crop feedstock should be deemed to have met the sustainability criteria. Also, that crop feedstock sourced within a 25-mile radius should be deemed to meet the criteria. This would be similar to the RHI approach to deeming that generators sourcing solid biomass within a 50-mile radius were 'self-suppliers' and so do not need to report against the scheme's sustainability criteria. There was also a request that the greenhouse gas emissions related to consignments of feedstock should be averaged.
- 5.20. There were a few conflicting views on whether auditing by Ofgem should apply to all plants regardless of size or whether reporting should apply to only large-scale plants.

## **Government decision**

- 5.21. As stated in the consultation document, Government does not plan to introduce sustainability criteria immediately. However, Government remains committed to investigating the option of doing so. Therefore, DECC plans to set out further details as part of the AD tariff consultation that is intended to be launched early in 2016. The details will be developed in light of stakeholder responses received to these questions.
- 5.22. Some of the comments and questions posed in stakeholders' comments are addressed here. Some stakeholders questioned why sustainability criteria should be introduced. There is a strong case to ensure that the FITs policy achieves significant greenhouse gas savings and introduces minimum protections for land with a high ecological value. Not doing so could severely undermine the policy intent of delivering low carbon and sustainable energy. There are now a significant number of plants which use crops and these are set to increase. Without sustainability criteria, the risks only grow. Furthermore, with the RO and RHI schemes already having introduced sustainability criteria, Government will aim for a consistent approach where practicable.
- 5.23. Regarding the use of feedstock from areas such as managed woodland and grassland, the proposed land criteria are aligned with the EU's

Renewable Energy Directive 2009<sup>28</sup> and place restrictions on sourcing feedstock from such areas. Similar criteria already apply under the RO scheme. Ofgem have produced RO guidance which provides further information on how they might apply in particular circumstances<sup>29</sup>.

5.24. On what the appropriate greenhouse gas saving threshold should be for AD under FITs (the consultation identified this as 60%), the greenhouse gas savings threshold under the RO and the RHI were informed by recommendations from the European Commission<sup>30</sup>. The details of any threshold for AD under FITs would be set out in more detail in the proposed 2016 consultation mentioned above.

5.25. There was also a question about whether the 1MW threshold for when generators would have to conduct independent audits related to electricity generation (1MWe) or heat generation (1MWth). This would be confirmed in the planned detailed AD consultation.

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<sup>28</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:EN:PDF>

<sup>29</sup> <https://www.ofgem.gov.uk/environmental-programmes/renewables-obligation-ro/information-generators/biomass-sustainability-and-renewables-obligation>

<sup>30</sup> Report from the Commission to the Council and the European Parliament on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling” (COM(2010)11), and the Commission staff working document (SWD(2014)259).

## 6. Administrative changes to the Feed-in Tariff scheme

6.1. Government sought views on proposals to limit the type and amount of overseas renewable electricity that can be used for the purposes of claiming an exemption from suppliers' shares of FITs costs, in line with the approach that has been implemented for the Contract for Difference Supplier Obligation (CfD SO)<sup>31</sup>. Questions 26 and 27 were linked so the analysis of responses and decision are combined below.

### Question 26 – Levelisation exemption scope

Consultation question		1648 unique responses
Q26	Do you agree or disagree that only imported renewable electricity produced by generators in other EU Member States that are under 5MW and commissioned on or after 1 April 2010 should be used to offset levelisation costs? Please provide your reasoning.	

### Question 27 – Levelisation exemption cap

Consultation question		1636 unique responses
Q27	Do you agree or disagree that we should introduce a cap on the amount of overseas generated renewable electricity that can be exempt from the costs of the scheme? Do you agree that the cap for 2016/17 should be calculated based on the number of GoOs recognised in 2013/14, increased by 10% twice to match the cap under the CfD Supplier Obligation (SO)?	

### Summary of responses

6.2. The majority of respondents either did not answer these questions or, where a response was provided, stated that they neither agreed nor disagreed with the proposals. Approximately 20% of total responses to the consultation provided a strong view either way, with the number of respondents supporting the proposal to limit the eligibility of imported renewable electricity eligible for the exemption, slightly outnumbering those that disagreed. A slightly higher proportion of respondents agreed with the proposal to

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<sup>31</sup> The CfD SO is designed to collect money from electricity suppliers in order to pay generators under the CfD scheme. A suppliers' share of these costs depends on their market share, though any electricity supplied from renewable generators in other EU member states is deducted when calculating that market share. The total amount of exempt electricity is capped in each financial year, and eligibility restricted to generators that commissioned on or after 1 April 2015 – the earliest that a generator could have begun its CfD.

introduce a cap on the amount of imported renewable electricity eligible for the exemption than disagreed.

### **Agreement with proposal**

- 6.3. Respondents who agreed with the proposals supported the principle of restricting the type and amount of imported renewable electricity eligible for the exemption. Some respondents believed that no renewable electricity imports should be eligible for offsetting levelisation costs.
- 6.4. Many respondents believed that the proposals would encourage greater levels of domestic renewable energy production by reducing the incentive for suppliers to source electricity from abroad, allowing for greater investment and/or jobs in the UK. Respondents also claimed that the proposals would be positive for reasons of energy security, efficiency, and would level the playing field between small and large suppliers. The proposals were considered to be desirable measures that would reduce the risk of market distortion.
- 6.5. Specifically in response to the proposal of a cap, several respondents described this proposal as a sensible balance between a more stringent position (which they claimed would unlikely be compliant with State Aid), and the current position (which they claimed is open to abuse). Many respondents believed it would be logical to align the cap with the one that applies under the CfD SO to reduce complexity.
- 6.6. Many electricity suppliers agreed with the proposal. One supplier argued that large volumes of imported eligible electricity have already led to uncertainty over the final value of suppliers' levelisation costs.
- 6.7. Others, whilst agreeing with the intention, believed that the cap should be set in alternative ways, such as in relation to the volume of renewable energy produced in GB or with reference to the size of the levelisation fund. Some respondents argued that the proposed cap is set too high. Others agreed that DECC should use the most recently published GoO figures as the basis for the cap calculation, but noted that in January 2016 these would be those for 2014/15.

### **Disagreement with proposal**

- 6.8. There were three broad themes of disagreement with the proposals:
  - i. Those who disagreed with the specifics of the proposals to restrict the type and amount of imported renewable electricity that can be used to offset levelisation costs (the minority);
  - ii. Those who disagreed with the principle of the proposals, which were to restrict the use of imported renewable electricity to offset levelisation costs (the majority);
  - iii. Those who disagreed with the principle of restricting the import of electricity more generally (note this was not proposed, yet was a theme in responses). Some suggestions appeared to misinterpret the

proposals by assuming that the restriction applied to the import of electricity, rather than the eligibility of electricity supplied from such imports for an exemption from the market share in the FITs levelisation process.

- 6.9. It is worth highlighting that only a minority of the responses received (see *i* above) disagreed with the specifics of the proposal. Many of these respondents made comments in agreement with the principle of restricting the use of imported renewable energy to offset levelisation costs. Therefore some of those who responded in disagreement may actually agree with amending the exemption when compared to a 'do nothing' approach. The other broad themes of response (ii and iii above), although classified as disagreement with the proposals, did not offer evidence in response to the specific questions asked. The points made under these two themes have however been summarised in this section for completeness.
- 6.10. Several respondents raised concerns about the impact of the proposed cap and the pro-rating approach on the ability of electricity suppliers to forecast levelisation costs. It was claimed that suppliers would not know at the time of contracting if imported renewable electricity would be eligible for the exemption and this uncertainty would result in higher costs for consumers. It was also claimed that the pro-rating approach would require inefficient billing systems using retrospective calculations, and that suppliers who have imported modestly would be penalised due to other suppliers importing large volumes.
- 6.11. In addition, several respondents commented that due regard would need to be given to the outcomes of Ofgem's consultation on market coupling and levy exemption certificates (LECs)<sup>32</sup>. Some respondents criticised DECC's suggestion that there could be an increase in imported renewable electricity, claiming that the historic increase in imported electricity was largely driven by demand for LECs (which have now been removed), and that the proposal to restrict eligibility for the exemption together with the restriction provided by interconnection capacity would be sufficient to limit the exemption without a cap. Several respondents suggested that DECC coordinate any decision on its proposals with Ofgem to take into account changes to the evidence criteria for GoOs, any revised criteria following the removal of the Climate Change Levy (CCL) for renewable electricity, or to wait to see whether a cap is necessary before implementing one.
- 6.12. Some respondents claimed that there are established ways of trading European renewable electricity which means that in-house management is not required. This, together with the removal of LECs, was argued to mean that small suppliers can now more easily contract overseas and the disproportionate impact of the exemption on smaller suppliers is less than DECC suggested in the consultation document.

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<sup>32</sup> [https://www.ofgem.gov.uk/sites/default/files/docs/2015/03/consultation\\_on\\_market\\_coupling\\_and\\_lecs.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2015/03/consultation_on_market_coupling_and_lecs.pdf)

## **Neither agree nor disagree**

- 6.13. Of those respondents who neither agreed nor disagreed, several stated that they did not have sufficient knowledge to fully understand the proposals and that the details were too technical to comment on.
- 6.14. Several respondents raised significant concerns around when the proposals would be implemented. Respondents commented that they would expect sufficient lead time for making any commercial changes, due to suppliers potentially already having agreed contracts for delivery. Specifically, respondents did not believe that implementation should occur before April 2016. Many in favour of the proposals believed that the changes should come into effect as soon as possible.
- 6.15. In relation to the cap, some respondents believed that it was complex and administratively burdensome, with one supplier claiming the proposal would be difficult for new entrants to manage.

## **Government decision**

- 6.16. Having considered the range of views and evidence presented, Government intends to implement the proposals to limit the eligibility of exemptible electricity and introduce a cap on the amount of overseas renewable electricity that can be used to exempt suppliers from the costs of the scheme.
- 6.17. Government intends that these measures will come into effect from 1 April 2016. Government intends for the cap for 2016/17 to be calculated based on the number of GoOs recognised in 2013/14, increased by 10% twice. GoO data for 2013/14 will be used as this is the most recent data available at the time of publication of this government response. This would give a cap of 8,117,254 MWh for 2016/17 (FITs year 7), which corresponds to the cap under the CfD SO for 2016/17<sup>33</sup>.
- 6.18. DECC notes that the reason that overseas renewable electricity was exempt from the levelisation process in the original FITs Order in 2010 was to ensure the scheme didn't fall foul of Article 30 or Article 110 of the Treaty of the Functioning of the European Union. However DECC considers the current incentive for suppliers to source an increasing amount of imported renewable energy from overseas provides a market distorting incentive to seek to import greater quantities of renewable electricity than would otherwise be the case. Imposing a restriction on the amount that can be exempted should reduce this distortion, bring the FITs levelisation exemption in line with other exemptions from levy costs, such as that for the CfD SO, and may help level the playing field between established suppliers and new entrants.
- 6.19. DECC considers that this approach is entirely within scope of EU law. It follows closely the exemption agreed for the Contracts for Differences (CfD)

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<sup>33</sup> Due to rounding and the FITs cap being set on an annual rather than quarterly basis, there will be a small but negligible difference between the CFD and FITs caps across each financial year.



scheme in its State Aid approval of 2014 where the Commission found there was no breach of EU law and acknowledged that the approach was to prevent a market distortion. Similarly, this approach for FITs corresponds to the approved CfD scheme by restricting the exemption to those generators that would have been eligible for CfDs had they been located in Great Britain<sup>34</sup>.

6.20. With regard to Ofgem’s consultation on market coupling and LECs, DECC will maintain an interest in Ofgem’s findings; however, Government does not believe that these will negate the necessity for a cap in future. There remains a risk that the level of imported renewable electricity will continue to increase, and Government therefore maintains the position that a cap should be in place to protect suppliers from the impact of a sudden rapid increase in imported renewable electricity.

### Question 28 – MCS standards

Consultation question	1596 unique responses
Q28	Do you agree or disagree with the proposed change to the FITs legislation to refer to specific versions of relevant MCS standards? Please provide your reasoning?

6.21. This question covered the proposal to make a drafting change so that it was clear in the FITs legislation which versions of MCS installation standards that FITs installations should be installed against.

### Summary of responses

6.22. Of those respondents who replied to the question, most did not indicate a preference either way for the proposal. Only approximately 22% of respondents expressed a definitive view, but were split equally in their agreement or disagreement. Responses were received from a mixture of renewable energy businesses, supplier companies, community organisations, public bodies, trade associations, NGOs and individuals.

### Agreement with proposal

6.23. Some of those who agreed felt that the proposal would protect against abuse of the system and ensure that the standards are met appropriately and would remove ambiguity. It was also highlighted that the approach would align with that already taken by the domestic and non-domestic Renewable Heat Incentive (RHI) schemes.

6.24. Various respondents who agreed with the proposal also set out a few concerns. These included the potential impact on existing FITs-accredited installations or installations not done recently that have yet to become accredited, with a few pointing to the need to refer to previous versions of

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<sup>34</sup> Paragraphs 90-95 of the 2014 State Aid approval for Contract for Difference for Renewables (SA.36196 2014/N): [http://ec.europa.eu/competition/state\\_aid/cases/253263/253263\\_1583351\\_110\\_2.pdf](http://ec.europa.eu/competition/state_aid/cases/253263/253263_1583351_110_2.pdf)

standards to ensure full coverage. Furthermore, it was claimed that the proposal should not restrict installers in designing and installing microgeneration plant. It was also highlighted that it would be vital to ensure that legislation was kept up to date with developments in MCS standards, with some comments made about the need for a grace period before one version of a standard superseded another.

### **Disagreement with proposal**

- 6.25. One of the themes running through many of the comments raised by those respondents who disagreed with the proposal was a concern that it would undermine or reduce the role of MCS in FITs. It was also felt by some that the proposal would lead to legislation not keeping track of developments in industry standards.
- 6.26. Some respondents suggested that the legislation should use a different referencing approach. For example, refer to the version of a standard that is 'applicable at the time of installation', or the 'most current version'. Several respondents also suggested that there should be a period of overlap between an existing version of a standard no longer applying and a new version that is being implemented.
- 6.27. Others felt that the proposal would restrict industry to using MCS standards and suggested that other standards be used. There were also comments that MCS should work with industry to develop standards in the most cost-effective and timely way.
- 6.28. Further concerns related to extending the MCS requirement's scope and the impact of the proposed change on existing accredited plant.

### **Government decision**

- 6.29. The proposal set out in the consultation seeks to address a legal issue and relates to what can and cannot be done through secondary legislation. The current reference in the FITs legislation to MCS recognising an installation as "satisfying relevant equipment and installation standards" means that MCS can potentially choose which standards to test against. In effect, this unintentionally sub-delegates to MCS the power to choose eligibility for FITs.
- 6.30. The proposal is not intended to alter the role that MCS plays in FITs. Therefore, the proposal does not, for example, extend the requirement of MCS certification in FITs to hydro (or AD) installations or to wind or PV installations above 50kW. Neither is the proposal intended to affect installations already accredited under FITs.
- 6.31. Furthermore, the FITs legislation already recognises schemes that are equivalent to MCS and this would be clarified in the amendment. It is to be noted that MCS offers more than just certification of products and installations. It includes a robust consumer protection framework which has been important in building confidence in renewables and therefore encouraging deployment under FITs.

- 6.32. Regarding making sure that the legislation is updated whenever new versions of MCS standards are brought in, Government is working with MCS to establish an ongoing working arrangement through a Memorandum of Understanding to ensure this is achieved in the necessary timescales.
- 6.33. MCS develops new versions of its standards through a process that assesses technological developments and whether and how to reflect them. This includes consultation periods. In addition, MCS is an industry-led organisation, so already works closely with industry representatives.
- 6.34. Regarding suggested alternative drafting approaches put forward by some respondents, none avoid the issue of sub-delegation.
- 6.35. Having considered the objections raised by stakeholders, Government does not believe that they form a substantive challenge to the need to amend the FITs legislation, nor to the structure of the proposal. Therefore, Government intends to implement the proposal to amend the drafting of the FITs legislation in order to refer to specific versions of MCS standards.

### Question 29 – Levelisation fund interest

Consultation question		1648 unique responses
Q29	Do you agree or disagree with the Government's proposal to use interest accrued on the FITs Levelisation Fund to part-fund administrative changes to the scheme which would otherwise be borne through public funding? Please provide your reasoning.	

- 6.36. Government proposed using interest accrued on the FITs Levelisation Fund to part-fund changes to the scheme required to implement the proposals in the consultation. Government estimates that implementing the changes confirmed in this consultation will cost around £200,000.
- 6.37. The Levelisation Fund is the central bank account managed by Ofgem into which electricity suppliers pay money or receive money on a regular basis to levelise the costs of funding Feed-in Tariff payments to generators across the entire supplier group, based on their retail electricity market share. There is a lag on the amount of time between payment arriving in Ofgem's account on a quarterly basis and Ofgem subsequently paying out funding, during which time interest is accrued.
- 6.38. Since scheme launch in 2010 until publication of this FITs Review in August 2015, the levelisation fund accrued £66,000 in interest. To date, this interest has not been used and has remained untouched in Ofgem's account. On publication of this Government Response in December 2015, interest in the fund had risen to £77,000. The reason why this amount has leapt is because the latest quarterly levelisation round concluded at the end of October and was the largest amount paid to date as the scheme value rises with new applicants.

## Summary of responses

6.39. There were 1648 responses to this question with respondents represented by a range of people, including private individuals, renewable developers, community groups, electricity suppliers, local authorities, and non-energy companies. Of those that answered the question, approximately 17% agreed with the proposal, approximately 14% disagreed with it and the remainder, approximately 69% neither agreed nor disagreed.

## Agreement with proposal

6.40. The most frequently expressed view in agreement to this proposal were short replies indicating support along the lines that the proposal was a sensible use of funding. This position was expressed by a range of respondents including individuals, technology developers, community groups, and organisations not directly involved in the energy sector.

6.41. Others expressed their agreement and noted that the sum involved was comparatively small and redistribution amongst suppliers was likely to be administratively complex and poorer value for money overall or would have a negligible impact on consumer bills when redistributed. This was expressed by a range of people including individuals, electricity suppliers, trade associations, non-energy businesses, and technology developers.

6.42. A number of respondents noted the importance of transparency in outlining the ongoing value of the levelisation fund and how Ofgem will spend the money. Related to this, a number of respondents noted that they agreed to the proposal only if Ofgem used the funding to support the administration of FITs. These were views noted by local authorities, installers, consumer interest groups, and electricity suppliers.

## Disagreement with proposal

6.43. The most commonly expressed opinion by those disagreeing with the response was that any interest accrued should be spent on expanding the Levy Control Framework and deploying more renewable generation. This was expressed by a broad range of respondents from private individuals, to renewable developers, community groups, and business not involved in the energy sector.

6.44. Another commonly expressed view was that Government should use Departmental expenditure to pay for any changes the Government wanted to make to the scheme and more limited numbers of people expressed concern that access to the accrued interest might create a perverse incentive on Government to make frequent changes to the scheme. These views were expressed by a range of individuals, community groups, energy companies, charities, and business not involved in the energy sector.

6.45. More limited respondents who disagreed with the approach did so on the basis that Government should not make any changes to the FITs

scheme and so should not grant Ofgem the ability to use the levelisation fund interest. This was expressed by individuals, non-energy companies, and consumer groups. Conversely, a number of people, largely individuals, disagreed with this proposal on the basis that the FITs scheme should not continue in order to limit the impact on energy bills.

### **Neither agreed nor disagreed**

6.46. Most people responding to this question did not supply detailed comments in support of their position. A small number of respondents, largely from industry, indicated that they required more information to make a decision. A larger body of people, largely private individuals, felt that they lacked technical knowledge of the scheme to offer an opinion. Finally, a small number of respondents felt that this question was an internal matter for Government, or unimportant within the scale of changes proposed within the consultation.

### **Government decision**

6.47. Having given careful consideration to the views expressed, Government has decided to grant Ofgem the power to access levelisation fund interest to part-fund changes proposed under the consultation. However, in line with consultation responses Government agrees with the importance of transparency and for the interest to be used on FITs scheme administration only.

6.48. Therefore, DECC will legally limit the remit for Ofgem to use this expenditure to fund its reasonable costs in the administration of the FITs scheme. The Secretary of State will determine what these reasonable costs are to be – but intends these to be restricted to the costs of making the changes as a result of this consultation. In addition, Ofgem have also committed to reporting publically on the value of the interest in the levelisation fund and how it is spent in Ofgem's Feed-in Tariff Annual Report. Government is satisfied that there are sufficient checks and balances on Ofgem's administration of the levelisation fund which will prevent a perverse incentive to accrue interest to the detriment of timely payment to FIT licensees (and therefore generators).

6.49. In taking this decision Government has considered the views of those who disagreed with the proposal. In particular, Government believes that the value of the levelisation fund interest is so small that, in terms of deployment, the impact on the sector would be negligible if the funding was recycled into the LCF. Government also notes that it is likely that processing and returning interest to FIT licensees for return to bill payers would be inefficient and likely to cost Government and electricity suppliers more to process than the individual value of returns.

6.50. Finally, in response to those who argue that Government should not make changes to the scheme, either because FITs should continue in its current state, or because the scheme should be discontinued immediately,

Government reiterates the view that the current proposal balances the need to act to protect bill payers with the ambition to continue renewables deployment under the scheme.

## 7. Energy efficiency criteria

7.1. Questions 30 to 32 related to different aspects of the FITs energy efficiency criteria. These included potential additional measures to increase the stringency of the criteria for future applicants and a specific proposal to change the rules on when an Energy Performance Certificate (EPC) needs to have been obtained. A summary of responses is provided below for each question, but there is a single Government decision section covering all three.

### Question 30 – EPC Threshold

Consultation question	1636 unique responses
Q30	Do you agree or disagree with the revision being considered to increase the energy efficiency threshold to EPC band C for anyone with an installation to which the criteria apply? Please provide your reasoning.

### Summary of responses

- 7.2. This question sought views on whether the threshold for getting the higher PV tariff should be raised from EPC band D to band C for future applicants.
- 7.3. About two thirds of respondents gave substantive answers to this question. Of those, almost half stated that they neither agreed nor disagreed with the proposal; a third disagreed with it, while about a fifth agreed with it.

### Agreement with proposal

7.4. Many respondents who agreed with the proposal were in favour of increased energy efficiency. While some believed that it should come before renewables, others felt that both were equally important. A number of respondents claimed that, in their experience, fitting solar panels or other renewables gave homeowners a greater sense of the need for energy efficiency.

### Disagreement with proposal

- 7.5. Other respondents claimed that the FITs scheme should not be used as a tool to implement energy efficiency policy, saying that the energy efficiency of a property had nothing to do with generation of renewable electricity.
- 7.6. Many respondents believed that this proposal would excessively reduce eligibility for the scheme. In particular, they expressed concerns that several types of property might not be able to achieve an EPC C rating through

energy efficiency measures alone and that the cost of moving to a C rating was greater than moving to band D.

7.7. Some respondents believed that Government support should be provided to help with installation of energy efficiency measures. Alternative approaches were suggested such as those taken by the Renewable Heat Incentive (RHI) scheme or ESOS (the Energy Savings Opportunity Scheme)<sup>35</sup>.

7.8. Finally, several responses commented on the proposal to require that an EPC is obtained prior to the commissioning date of a PV installation. One disagreed with the proposal as they felt that installing energy efficiency measures and renewable plant at the same time reduces hassle and potentially cost. Another respondent put forward a suggestion to introduce the change, but to assess its impact before taking steps to bring in the other energy efficiency proposals. It was also claimed that PV installations can in some circumstances contribute up to 20 points in the EPC rating system<sup>36</sup>, therefore presenting a significant way to reach the current band D requirement.

### Question 31 - Eligibility

Consultation question		1604 unique responses
Q31	Do you agree or disagree with the revision being considered to remove FITs eligibility from anyone with an installation to which the criteria apply who does not have at least an EPC band C? Please provide your reasoning.	

### Summary of responses

7.9. This question sought views on whether eligibility for new applicants to FITs should be limited to just those with an EPC rating of C or above.

7.10. About two-thirds of respondents gave substantive answers to this question. About half of them stated that they neither agreed nor disagreed with the proposal, while about 10% agreed with it and 40% disagreed with it.

### Agreement with proposal

7.11. Comments in favour of the proposal mainly focused on the point that it would encourage greater energy efficiency and that it was more cost effective to save energy than to generate it. It was requested by some respondents that certain buildings be exempted, for example, due to their age or building fabric.

<sup>35</sup> <https://www.gov.uk/guidance/energy-savings-opportunity-scheme-esos>

<sup>36</sup> Each EPC band (from A to G) covers sections of the ratings range which runs from 0-100. Properties are scored against this range during an EPC assessment. For example, currently band E covers ratings 39-54 and band D covers ratings 55-68.



## Disagreement with proposal

- 7.12. Many respondents felt that the proposal would restrict the number of suitable properties for solar PV installations under the scheme. Others believed that it would discourage poorer households from installing renewables. Further comments included that the installation of PV was sometimes the only measure that could be installed on some properties to reduce carbon emissions.

## Question 32 – EPC exemptions

Consultation question	1624 unique responses
Q32	Do you agree or disagree with the exceptions for community groups, schools and fuel poor households to the revision to the energy efficiency criteria being considered? Please provide your reasoning.

## Summary of responses

- 7.13. Government consulted on exemptions for community groups, schools and fuel poor households to the potential future revisions to the energy efficiency criteria considered in questions 30 and 31.
- 7.14. Almost 70% of respondents gave substantive answers to this question. Nearly half of these were in favour of the proposal, with about 10% disagreeing with it and the rest neither agreeing nor disagreeing.

## Agreement with proposals

- 7.15. Many respondents agreed with the proposal, with some believing that these groups should be exempted in particular if the other proposed energy efficiency measures were implemented. Some believed that the fuel poor were a group that needed the benefits of on-site generation of energy the most.

## Disagreement with proposals

- 7.16. Some respondents felt that administering any exemptions would add to the running costs of FITs. Others felt that the same rules should apply to all.
- 7.17. Several disagreed with the proposal on the basis that support should be made available to raise the fabric efficiency of community buildings, schools and fuel poor households. Others felt that improved energy efficiency should be a stipulation for these groups to be eligible for exemptions. A number of respondents added that any exemptions should be time limited.
- 7.18. Others disagreed with offering an exemption to one or another of the proposed groups for specific reasons. Most related to the feeling that the

group in question should prioritise improving their energy efficiency over electricity generation.

- 7.19. Finally, some respondents suggested exemptions for specific property types including social housing, listed buildings, religious buildings and council/public buildings.

### **Government decision**

- 7.20. Many respondents commented on the proposals on the assumption that they might be imposed on existing FITs generators. To be clear, the consultation stated that the potential changes being considered were aimed at new applicants. Existing accredited generators would not be affected.

- 7.21. Many comments received questioned why there should be a link between the installation of renewable electricity technologies and setting energy efficiency criteria. The rollout of renewable energy cannot be looked at in isolation. It forms part of the wider UK energy system which involves consumption in addition to generation. The UK needs to switch its energy generation base *and* reduce its energy demand in order to achieve its long-term carbon abatement targets at least cost. Therefore, a holistic approach to reducing carbon from properties is required by addressing avoidable energy waste alongside the rollout of renewably generated energy.

- 7.22. In addition, from a consumer perspective, it may be better value for money to make energy bill savings through reducing overall consumption than through getting on-site generation. Consumers should therefore be looking at all the options rather than viewing the installation of renewable electricity technologies as the first step in every situation. It is for these reasons that FITs has energy efficiency criteria in place.

- 7.23. DECC has considered the arguments made by respondents against the proposal to require an EPC to be obtained prior to the commissioning of a PV installation. DECC does not believe that they address the concern highlighted in the consultation document that the aim of the energy efficiency requirement is to encourage improvements in the energy efficiency of properties more generally. Allowing the installation itself to contribute to how the energy efficiency requirement is met does not satisfy this objective. As highlighted in some of the responses received, the installation of a PV panel can, in some cases, on its own increase a property's EPC rating significantly, meaning it could potentially leap fairly easily to the band D rating required for the higher tariff without any other measures being installed. Furthermore, as set out in the consultation, this inconsistency with the original policy intent could become more pronounced with the changes to the definition of "eligibility date" linked to the implementation of caps (see chapter 2 "Cost Control measures" above).

- 7.24. Therefore, DECC intends to implement the proposal to require the EPC to be issued prior to the commissioning date of the PV installation as a scheme eligibility requirement for new applicants. The effectiveness and impact of this change will be monitored and, if necessary, reviewed following its implementation.

7.25. As the consultation document stated, beyond the proposal to require the EPC to be obtained before the commissioning date of the PV installation, DECC is not intending to make any changes to the energy efficiency criteria at this stage. Therefore, DECC will not be introducing the further proposals as a result of this consultation. DECC will continue to monitor the energy efficiency criteria, however, and if DECC considers it necessary to revisit them in the future, a further consultation will be held on any proposed changes.

# Annex A - List of consultation respondents

The organisations listed below were identified from their consultation responses. However, it was not clear in every circumstance if an individual was responding in a personal capacity or on behalf of the organisation attributed to their name. Individual responses are not listed.

10:10
East Bridgford Community Energy IPS Ltd.
1 world solar ltd
2020SolarPV
3R Energy
4NAVITAS
Aardvark EM Limited
AB Connect
AC Solar
Acorus Rural Property Services Limited
AECOM
Aeolus Power (Wind Energy) Ltd
Affordable Solar Europe Limited
AFM Solutions
Alder Carr Farm
All Eco Energy
Alpha Eco Systems.
Amber and Derwent Valley Community Energy
Amgylchedd Flintshire County Council
AMP Renewables Ltd
Anaerobic Digestion and Bioresources Association
Anthesis
Appleton & Spaunton Community Energy CIC
Argyll and Bute Council
Arts & Health South West
Arup
ASE
Ashden
AspenEco
Asset Finance & Management Ltd.
Association for decentralised energy

Association for Public Service Excellence
Association of meter operators
Athena Electrical Ltd
Avon and Somerset Constabulary
Axpo UK Limited
Aylesbury Vale District Council
Aztechs Ltd
Babergh District Council
Barn Energy Limited
Barnet council
Barnsley Metropolitan Borough Council
Bath & North East Somerset Council
Bath & West Community Energy
BAXI
BayWa r.e. Solar Systems Ltd
beneficial environments
Big Society Capital
Biochemical Society
bioregional
biOS
Biosustainable Design
Bioturbines Ltd
Bishops Castle & District Community Land Trust
Bishop's Castle Community Energy Cooperative
Blue Tidal Energy Ltd
Border Hydro Ltd
Boston Renewables
Bovey climate action
Bowler Energy LLP
Boydell Architecture
BRE National Solar Centre
Brendon Energy Ltd

Brent Pure Energy (registered CBS)
Brighton Climate Action Network
Brighton Energy Co-op
Bristol City Council
Bristol Energy Cooperative
British Gas
British Hydropower Association
British Photovoltaic Association
British Sugar plc
Buckinghamshire County Council
Bullion Community Resource Centre
Business Futures Forum
C02 Sense
Calderdale Council
Camden Council
Campaign to Protect Rural Devon - East Devon Group
Canal & River Trust
Canonbie & District Residents Association
Caplor Energy
Carbon Action Network
Carbon Conversations
Carbon Zero Renewables
Carden Consulting
Cardiff community energy
Carpenter Lowings A&D Ltd
CasMad Energy Consultants Ltd
CBRE
Ceiba Renewables Limited
Celsa Group
Central Bedfordshire Council
Centre for Ecology and Hydrology
Certsure LLP
Chase Royale farm

Chelsfield Solar
Cheltenham Borough Council
Cherwell District Council and South Northants Council
Chester Community Energy/Transition Chester
Chippenham Green Party
Christian Climate Action
Church Cottage Farm
Church of England
cilgwyn community association and others
Citizen's Advice
Civil Engineering Contractors Association
Clarke Energy
Claverton Associates Ltd
Climate Integrated Solutions
Climate Stewards
Climate Vision
Cofely Energy Services
COLDSTREAM COMMUNITY TRUST
Collective Intelligence Ltd
Commercial
Communities for Renewables CIC
Community Energy Birmingham Limited
community energy england
Community energy for Gargrave & Malhamdale (CEGAM)
Community Energy Plus
Community Energy Scotland
Community Energy South
Community Energy Wales
Community Energy Warwickshire Limited
Community Housing Cymru
Community Hydro Forum
Community Outdoor Art Therapy Service (COATS)
Community Power Cornwall
Campaign to protect rural england
CompareMySolar Ltd
conergy
Conergy UK Ltd
Connect Regen Ltd
Consumers Association, BMA
Cooks Energy
Cool Earth trustee
Co-operative energy
Co-operatives UK
Cornwall Council

Cornwall Solar Panels
Country Land and Business Association
Craydene Associates Ltd
Crichton Carbon Centre
CSGS Grammar School
Cuckmere Community Solar Community Benefit Society
Cumbria Action for sustainability
Curtis Brown Group Ltd
CW Design
CWind
d.a.s.h services
Data Track Solutions Ltd
Datblygiadau Egni Gwledig (DEG)
DDM Agriculture
Delphi Diesel Systems
Derwent Hydro Developments Ltd
Derwent Hydroelectric Power Ltd
Develop Your Ltd
Devon County Council
Differential Audio Limited
DMH Stallard LLP
dnvgl
DONG Energy
Dorset Community Energy Limited
DP Williams Group Ltd
Dragon Renewables
Dryhouse
Dulas Ltd
Dwr Dymru Welsh Water
E.ON
Earthmill Ltd
East kent against fracking
East Lothian Housing Association
Eastrington Energy Community Interest Company
ECO HI SOLAR
Eco Power & Lighting
Eco Republic
Ecobuddhism.org
Ecocetera Ltd
Ecodyn Limited
Ecoskies Ltd
Ecosphere Renewables
Ecosunpower
Ecotricity
Ecoup Ltd
Ecuity Consulting LLP

EDF Energy
EDF Trading Ltd
Edinburgh Council
Egni Sir Gar Cyfyngedig
Eigg Organics
Elan Global Renewables
Electrical Contractors' Association
Electricity North West
ElectroSensitivity UK (ES-UK) www.es-uk.info
ELEXON Limited
EMW-SS
Endurance Wind Power Inc.
Eneco Wind UK Ltd
Energiekontor UK Ltd
Energiesprong UK
energise Sussex coast
Energy Agency
Energy Enterprises Associated Limited
Energy Jump Ltd (Solar PV installers)
energy saving trust
Energy Source Ltd.
Energy UK
Energy4All
energyhive
EnergyMyWay
Enertek International Ltd
Engena Limited
Enphase Energy
Environmental and Energy Consultancy
Environmental association for universities and colleges
ESPE Group
Essex County Council
Eternal Energy Systems
Ethex
European biogas association
European Convention Bureau
European Marine Energy Centre
European Public Health Association
Evesham Methodist Church
EWT Direct Wind
Exeter and East Devon Low Carbon Task Force
Exeter City Council
F & S Energy
Fair World Alliance

FARA
farm wind limited
Fenland solar ltd
Fetlar Wind Ltd
Fife Council
Finance Otherwise CIC
fintech business
First Utility Limited
First Wessex (Housing Association)
Flowgroup
Forever Beta
Forster Energy Ltd
Fortress Property Investment Ltd
Forum for the Future
Four winds Energy Co-operative Ltd
Frack Free Cleveland
Frackfree Ryedale
Freesona Solar 1 Limited
FreeTree
freetricity plc
Freewatt Group
Friends of Benton Village Green
Friends of Rural Cumbria's Environment.
Friends of the Earth
Friends of the Peak District
Frome Renewable Energy Co-op
Fronius UK Ltd.
Funding knight
Funky Renewables Ltd
Futurewise Energy
G2 Energy Renewable Developments Limited
Galpin Landscape Architecture Ltd
Galson Sciences Ltd
Gazprom energy
ENGIE (GDF SUEZ)
Geffryes LLP
GEINI Ltd
Gelli'r Onn Farm
Gemserv Limited
Gen Community
Genetic Digital
Gentoo Group Ltd
Geowarmth
Gerlan Hydro Ltd
Gigha Renewable Energy Ltd (GREL)

Gilbert Gilkes & Gordon Ltd
GJ Renewables Ltd.
GLA
Glasgow City Council
glen hydro
Glenburnie Hydro
Global documentary
Gloucestershire Community Energy Coop
Good Energy
Grand Union Community Energy Ltd.
Grannell Community Energy
Granta Design
Great Ormond Street Hospital School
Greater Grimsby Community Power C.I.C.
Greater manchester centre for voluntary organisation
Greater Manchester Community Renewables
Greater Manchester Fire & Rescue
Green & Co Renewables Ltd
Green 2 Green Ltd
Green air heat pumps.co.uk
Green Cat Renewables Limited
Green Deal Homes
Green Energy UK
Green Highlands Renewables Ltd
Green Light Energy Solutions
Green Party
Green Party MEPs
Green Power
Green switch solutions
Greening Wyomndham Group
Greenman Solar
Greenpeace UK
Greenscape Energy Ltd
Greenshop Solar Ltd
Greentricity Ltd
GrnHub.com
Groundwork
Growing a Greater Bentley
Guardian
GW Consulting
H&H Land and Property, Carlisle
H2O Power Ltd
Hackney Energy
Haddenham Parish Council

Halesworth in Bloom
Hallidays Hydropower Ltd
Hanergy
Harbon Wind Turbines
HARTLEPOWER CIC
Hartley Wintney Solar Action Group
Hastings Transition Town Renewable Energy Group
Haven Power
Heather Garth Ltd
Heating and Hotwater Industry Council
Heattech (Scotland) Ltd
Highgate Society
Highland council
Highland Eco-Design Ltd
Highlands and Islands Enterprise HKD Energy Limited (Community Benefit Society)
Holton Renewable Power Ltd
Home Insulation & Energy Systems
Hutchesons' Centre for Research
Hyde Park Electrical Ltd
Hydro Schemes UK Ltd
Hydromatch Consulting
Hydroplan
IDLS Partners Ltd
Immanent Associates
Inenco Group
Ingleton Wood
Inspirit Energy Ltd
Institute for Sustainability
Intelligent Land Investments (Renewable Energy) Ltd
Iona Community Council
Ipswich borough council
It's About Water Ltd.
J3 Building Futures
Jacobs
James Wigg General Practice
JC Hydro Ltd
JJM BUILDING SUPPLIES LTD
jmarchitects
JMP Autos
John Gilbert Architects
Joju Solar
Jorro Ltd
JS Consultancy
Julian Abrams Ltd

K2 Solar Mounting Solutions Ltd
keep it in the ground campaign
Keep Scotland Beautiful
Keynsham Community Energy
Kingspan Environmental kirkbymoorside and district energy co-operative
KJ Tait Engineers
Knight Frank
Knoydart Renewables Ltd
Kyle of Sutherland Development Trust
L B Ealing Social Services
Lakes Renewables Ltd
Lambeth Green Party
Lansdowne Green Energy
Lark Energy Commercial Installations Ltd
Laurence Collings Ltd
LCON
Leeds Solar
leitwind
LessCO2 Limited
Liberal Democrat Group, Oldham Council
Lightsource
Lincolnshire County Council
Linlithgow Natural Grid
Liverpool City Council
Liverpool Community Renewables Limited
LMK Thermosafe Ltd
Local Energy Scotland
Locogen
London Assembly
London Borough of Islington
London Borough of Merton
London Environment Directors' Network
London School of Hygiene and Tropical Medicine
London Sustainable Development Commission
London University UCL-Institute of Education
Loundsley Green Community Trust
Love Solar Ltd
Low Carbon Chilterns Co- operative Ltd
Low Carbon Hub
Low Carbon.
Lower Shaw Farm
Lymm Community energy

M Dodd & sons
M3 Solutions Ltd
MABRAKE environmental group
MacWind Consulting
Maidencombe Community Group
MaidEnergy Ltd
Make Public
Manchester City Council
Manchester Friends of the Earth
Mandorla Co-Housing in Herefordshire
Manley Park Methodist Church
mann power consulting ltd
MAP ENERGY FUNDING SOLUTIONS LIMITED
MAP Environmental
MAP Environmental Limited
Marches Green Energy Ltd
Marketing Plastic Extrusions
Marlec Eng Co Ltd
Marr Area Partnership
material change
Matlock Area Climate Action Forum
Mayor of London
McKenzie Crafts
Mears Group PLC
Med-Ocean
Medoria Solar Ltd
MEG Renewables
Melness & Tongue Community Development Trust
Metapraxix ltd
Michael Goulden Architects
Micro Hydro Association
Microgeneration Certification Scheme
MicroHEP
Mid Suffolk District Council
Midori Solar & Electrical Solutions Ltd
Midsummer Energy Ltd
Mike Preston Associates
Mineral Wool Insulation Manufacturers Association
Mint Energy (Scotland) Ltd
mitie
MLDI
Mobile Massive Ltd
modece architects
Moixa Energy

Mole Valley District Council
Mole Valley Farmers Ltd
Mongoose Energy
Morben Hydro
MORE Renewables
MoreFrom Coaching Ltd
Morton Brothers Ltd
Mosscliff Environmental Ltd
Mott MacDonald
MRES
Muirhall Energy
Mull and Iona Community Trust
Muswell Hill Sustainability Group
My Solar PV Ltd
naet-co ltd
Narec Distributed Energy Ltd
National Association of Professional Inspectors and Testers
National Energy Foundation
national farmers union
National Grid Electricity Transmission
National Housing Federation
National parks england
National Union of Students
Natural Generation
Natural Generation Ltd
Natural Technology Developments Ltd
NEPO Newcastle City Council
Network of Wellbeing (NOW)
New Anglia Energy Limited
New Buckenham Village Hall Charitable Trust
New Generation Energy Ltd
Newcomb Energy Ltd
Newgate Solar
Newport 21
Newton-le-Willows Climate Change Group
NextEnergy Capital
Nexus Planning
NFU scotland
NGO - PCAH (Parents Concerned About Hinkley)
NHS
Non-Linear Functions
Norbar Torque Tools Ltd
North Ayrshire Council
North Star Solar

Northern Power Systems
Northumberland Beach Cottages
northumbrian water
NorthWest CAN
Norvento Wind Energy UK
Notting Hill Methodist Church
O2i Design Ltd
Oakapple Renewable Energy Ltd
Offgrid power wind ltd
Ofgem
Oil & Gas Infrastructure Support Consulting
Oldham Council
Open Energi
Operation Noah
Opus Energy
Orenda Energy Systems
Orkney Islands Council
Orkney Renewables
Orsis (UK) Limited
OST Energy
Otter Solar
Our Power Community Benefit Society Ltd
Ouse Valley Energy Services Co Ltd
Ove Arup & Partners Ltd
Ovesco
OVO Energy
Oxford City Council
Oxford Solar PV
Oxfordshire Green Party
Oxton organics
Paperclip C.N.
Partneriaeth Ogwen
PassivSystems Limited
Pasteur Environmental
Paul Testa Architecture
Pembrokeshire County Council
Pembrokeshire Friends of the Earth
Pennine Community Power
Peter Harrison Furniture
Peterborough City Council
Phantom Productions
Photon Energy
PLMR
PLUG INTO THE SUN
Plymouth Energy Community

Polruan Village Hall
Poole Agenda 21
Population Matters
Porlock Community Orchard
Portsmouth City Council
Positive Solutions Glasgow
Power for Good Co-operative Ltd
Poweri Services Ltd
Powervault
Powerwatch (small UK NGO)
PPL TRAINING LIMITED
Prescient Power Ltd
Preservation of Rural Devon Group
Primavera Energy
Property Maintenance
Protect Devon
Proterra Energy Ltd
PSCA (North Wales) Ltd
Public Power Solutions Ltd
Pure Leapfrog
Purelec Energy Ltd
PV FIT Ltd T/A Genfit
Quantock Eco
Quantum Strategy & Technology Ltd
Queenswood Development and Green Energy Company Ltd
R E Osborne - Building Consultant
Rail Delivery Group
Reach Community Solar Farm
Reading Borough Council
Reading Hydro
Reading School
RECC
Recyke y'bike
Redhead Business Films
Redland Parish Church
Regen
Regen SW
RenEnergy
ReneSola UK Limited
Renewable Energy Association
Renewable Energy Investments
Renewable Energy Specialist
Renewable Energy Systems Limited
Renewable Energy Worthing Co-Operative (RenewCo)
Renewables First Ltd

Renewables for Schools
RenewableUK
Renewtech Installations Ltd
Renzow Barker Architectural Designers
REPOWERBalcombe
Repowering london
RES (Devon) Ltd
Revolution Power Ltd
River Energy Networks Ltd
RJ Energy Ltd
Roseacre Awareness Group
Rotary International
Royal College of Nursing
Royal Institution of Chartered Surveyors
rspb uk
RWE npower
RX Power Rye Ltd
RZ Farm Energy
Safari Glamping
safe install ltd
Safin Resources Ltd
SALT Action group
Saunders Energy
Savills
Scaled Energy Llttd
Scene consulting ltd
Scientists for Global Responsibility
Scotland Against Spin
Scottish School of Child and Baby Massage
Scottish Communities Climate Action Network
Scottish Community Energy Coalition
Scottish Federation of Housing Associations
Scottish Government
Scottish Green Party
Scottish Islands Federation
Scottish land & Estates
Scottish Renewables
Scottish Water
ScottishPower
SDM Electrics Ltd
SEAM Centre, Inverness College UHI
Segen Ltd
Seren energy ltd
Severn Trent



Sharman Associates
Sheffield Climate Alliance
Sheffield Green Party
Sheffield Renewables
Sheffield Solar
Shrewsbury Hydro CIC
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Simple Power
SJ1 Renewables Ltd
Skills2Learn
SKYLINE SOLAR LTD
Smartest Energy
Smiths Electrical Ltd
Snowdon Mountain Railway
Snowdonia Hydro Limited
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Social Finance
Society of Friends
Sohost
Solar and Wind Applications
Solar Energy Alliance Ltd.
Solar Kingdom Ltd
Solar Media
Solar Polar Limited
Solar Power Engineers Ltd
Solar PV Tech
Solar South West Ltd
Solar Trade Association
SolarCentury
Solarkinetics Ltd
SolarKing UK
Solarplicity
SolarUK LTD
Solarwall Ltd
solarworxs
Solesco Co-operative Ltd
solstice renewables
Source PV
Source Renewable
South Facing Limited
South hams district council
South Hill Association for Renewable Energy
South Lanarkshire Council
South Seeds
South Somerset District council
South Tynedale Railway Preservation Society

South West Mull and Iona Development
South West Water Ltd
Southampton Climate Coalition
Southern Staffordshire Community Energy
Sparks Publishing Services Ltd
Spoken Word Studio
SSE
SSE Energy Supply Ltd
St Anne's Church, London N6
St George's Church Southall
STAR (StAustellRenewables)
Stedingk Industrial Design
Stirling Council (Housing Services)
Stop Smart Meters! (UK)
Stretton Climate Care
Stroma Technology
Stroud Transition Town
Suffolk Climate Change Partnership
Sun Edison
SUN ELECTRIC LIMITED
Sunamp Ltd
Sunderland City Council
Sundog Energy Ltd
Sunfixings Limited, Quercus Renewables LLP, Solar Limpets Limited
Sungevity UK Ltd, part of Sungevity International
SunGift Solar Ltd
Sunrise Community Energy
Sustain Solar Limited
Sustainability & Energy Network in Staveley
Sustainability First
Sustainable Blewbury
Sustainable Crediton
Sustainable Energy Association
Sustainable Energy Communications / Pomona Solar Co-operative
Sustainable Future Services
Sustainable Housing Action Partnership
Sustainable Kirtlington
Sustainable Kitchens Ltd
Sustainable Mull & Iona
Synthetic Films Ltd
System Error Studio
SystemsGames
Tamar community energy

Target Renewables Ltd
TDSolarGroup
Tees Valley Unlimited
Temple Knight Law
Teign Energy Communities Ltd.
Tetro Energy Ltd
TGE Group
TH White installation Ltd
The Abbey Group Cambridgeshire Ltd
THE ARCHITECTURE ENSEMBLE
The Centre for Sustainable Energy
The Efficient Energy Corporation Ltd
The Francis Crick Institute
The IBSA
The national trust
The North Devon UNESCO World Biosphere Service
The Salvation Army Leigh on Sea
Theatre for a Change
theSCPItd
Think North
Think Renewable Energy
Calor
Thringstone Community Centre
Tigermarque
Top Spin Web Design
Total Power Installations Ltd
TPC
TradeLink Solutions Ltd
Trades Union Council
Transition Bath
Transition Exeter
Transition Eynsham Area (GreenTEA)
Transition Forest of Dean
Transition Langport
Transition Stratford
Transition tavistock
Transition Town Lewes
Transition Town Totnes
Triangle Design
Tridium Europe Ltd
Trillion Fund Ltd
Triodos Renewables
Trowers & Hamblins LLP
Two Wards Of Solar co-op
U3a Climate Change Group Bury

St Edmunds
uk energy solution ltd
UK Power Networks
UK Sustainable Energy Limited
Ulrika Jarl Lighting & Homewares
Ulster Farmer's Union
UniSolar
United Utilities
Unmade Ltd
Upchurch Associates Architects
Utilita
Vale of Glamorgan Council
Value Retail Plc
vento ludens Ltd.
Verco
Vergnet
Viessmann Ltd
VIRIDIS
VS Property Ltd
VSI
Wardell Armstrong LLP
Warm Wales--Cymru Gynnes CBC ( Community Interest Company)
warm-space insulation Ltd
Warrington Borough Council
WATT ENERGY SAVER
Weald Consulting Ltd
Welsh Government
Wemyss Renewables Ltd
West Berkshire Council Liberal Democrats
West Midlands Solar Installations Ltd
West Sussex County Council
Westech Solar (UK) Ltd
Westerwood Properties Ltd
Westmill Solar Cooperative Ltd
Whole House Energy
Wiley Accessories (UK)
Wiltshire Council
Wiltshire Wildlife Community Energy
Wimborne Minster Church (Dorset) Environment Group
Wind & Sun Ltd
Wind Power Scotland
Woodborough Park
Worcestershire County Council
Wrexham County Borough Council

Yealm Community Energy Ltd
York Community Energy
York Green Party
Yorkshire Energy Partnership CIC
YouGen
zanussi solar
zlc energy ltd

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London SW1A 2AW

[www.gov.uk/decc](http://www.gov.uk/decc)

URN 15D/542