



Feed in Tariff Consultations

A briefing by JDS Associates – 09/02/2012

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Introduction

The Department for Energy and Climate Change (DECC) today launched phase 2 of its consultation on Feed in Tariffs. Following the announcement JDS Associates has been reviewing the published information in detail.

DECC has published two separate consultation documents as part of phase 2 of the FiT scheme:

- 2A covers tariffs and degression policy for Solar PV from 1st July 2012
- 2B covers non-PV technologies and wider scheme rules

In addition DECC published a response to “Phase 1” of the consultation and an Impact Assessment This briefing document provides a summary of some of the key issues.

Consultation 2A – Proposals for Solar PV

Tariffs for Solar PV from 1st July

DECC proposes that the tariff for solar PV from 1st July is set based on an assessment of market deployment in March and April at the 21p tariff confirmed for these installations from 3rd March. The options are as follows:

- Option A: If volume deployed is over 200MW – the tariff from 1st July will be 13.6p/kWh for domestic PV
 Option B: If volume deployed is between 150MW-200MW, the tariff will be 15.7p/kWh for domestic P
 Option C: If volume is less that 150MW the tariff will be 16.5p/kWh for domestic PV

Figure 1 - July 1st Tariff optionsⁱ:

Band (kW)	1 April tariff	Option A	Option B	Option C
≤4kW	21p	13.6p	15.7p	16.5p
>4kW-10kW	16.8p	10.9p	12.6p	13.2p
>10-50kW	15.2p	9.9p	11.4p	11.9p
>50-150kW	12.9p	7.7p	9.7p	10.1p
>150-250kW	12.9p	5.8p	8p	10.1p
>250-5000kW	8.9p	4.7p	6.8p	7.1p
Stand alone ¹	8.9p	4.7p	6.8p	7.1p

Medium term degression Policy for PV

DECC is proposing a regular 6 monthly degression of tariffs for Solar PV, starting from October 2012. This timed degression may be brought forward if volume exceeds expectations. Industry is however promised a two month warning of any early changes.

Two options are provided for the pace of depression – a preferred 10% every six months, or a slightly more conservative 5% every six months. The pathway of future tariffs is of course also dependent on the starting point determined by take-up during March and April this year. Taking the Government’s preferred option of 13.6p/kWh from July 1st and 10.6% depression, future tariffs may look as follows:

Figure 2: Degression pathway if deployment between March and April exceeds 200MWⁱⁱ

**Table 1: Proposed generation tariffs for solar PV from 1.4.2012 to 1.4.2015:
OPTION A STARTING TARIFF, Baseline Degression at 10% every 6 months**

Band (kW)	Tariff Pt 1	Tariff Pt 2	Tariff Pt 3	Tariff Pt 4	Tariff Pt 5	Tariff Pt 6	Tariff Pt 7	Tariff Pt 8
	April 2012	July 2012	Oct 2012	April 2013	Oct 2013	April 2014	Oct 2014	April 2015
≤ 4kW	21p	13.6p	12.9p	11.6p	10.4p	9.4p	8.5p	7.7p
>4-10kW	16.8p	10.9 p	10.4p	9.4p	8.5p	7.7p	6.9p	6.2p
>10-50kW	15.2p	9.9p	9.4p	8.5p	7.7p	6.9p	6.2p	5.6p
>50-150kW	12.9p	7.7p	7.3p	6.6p	5.9p	5.3p	4.8p	4.3p
>150-250kW	12.9p	5.8p	5.2p	4.7p	4.2p	3.8p	3.4p	3p
>250-5000kW	8.9p	4.7p	4.5p	4.1p	3.7p	3.3p	3p	2.7p
Stand alone	8.9p	4.7p	4.5p	4.1p	3.7p	3.3p	3p	2.7p

Tariff Pt 1: applies from 1 April 2012

Tariff Pt 2: applies from 1 July 2012

Tariff Pt 3: applies from 1 October 2012, or 2 months after total deployment since 1 April 2012 exceeds 225 MW (whichever of these dates is earlier)

Tariff Pt 4: applies from 1 April 2013, or 2 months after total deployment since 1 April 2012 exceeds 563 MW (whichever of these dates is earlier)

Tariff Pt 5: applies from 1 October 2013, or 2 months after total deployment since 1 April 2012 exceeds 1075 MW (whichever of these dates is earlier)

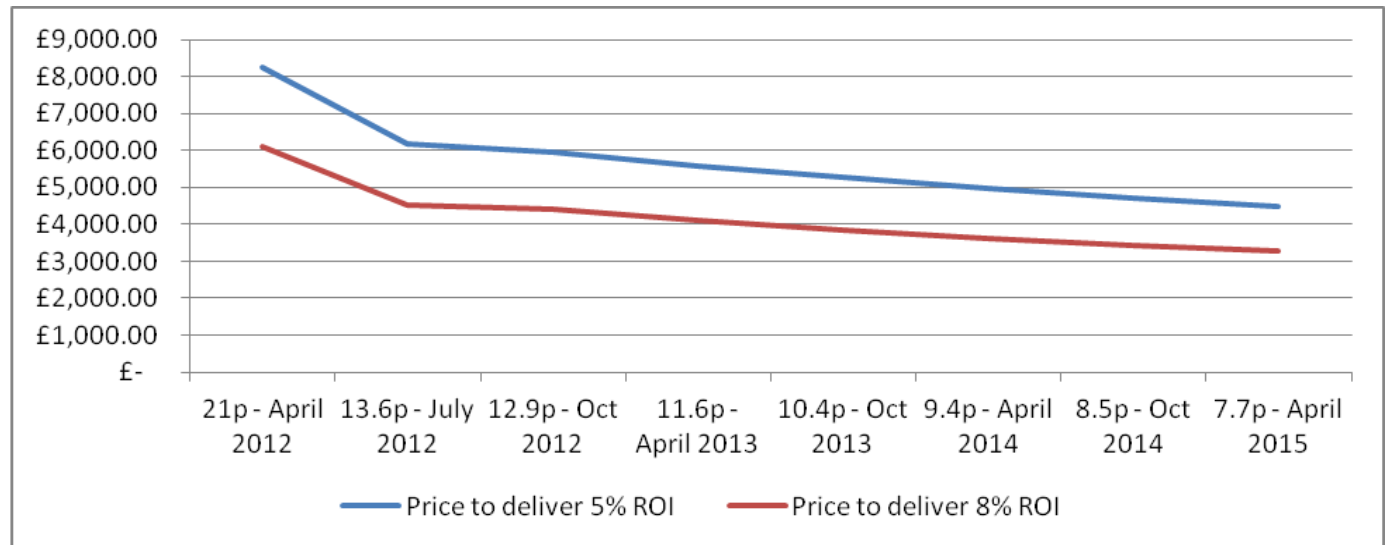
Tariff Pt 6: applies from 1 April 2014, or 2 months after total deployment since 1 April 2012 exceeds 1675 MW (whichever of these dates is earlier)

JDS Associates has analysed these tariffs using a replication of the DECC FiTs calculator in an effort to understand how prices might need to fall in order to provide investors with an acceptable return. We looked at the case of a 2.6kW capacity (typical domestic) system and modeled the installed price necessary to deliver a 5% and 8% ROI with these new tariff proposals. The results are set out as follows:

Figure 3: JDS Analysis of required system price to achieve Return on Investment at 5/8% - lead DECC option on tariffs from 1st July and 10% degression every six months.

Band (kW)	Tariff Pt 1 April 2012	Tariff Pt 2 July 2012	Tariff Pt 3 Oct 2012	Tariff Pt 4 April 2013	Tariff Pt 5 Oct 2013	Tariff Pt 6 April 2014	Tariff Pt 7 Oct 2014	Tariff Pt 8 April 2015
< 4kW	21p - April 2012	13.6p - July 2012	12.9p - Oct 2012	11.6p - April 2013	10.4p - Oct 2013	9.4p - April 2014	8.5p - Oct 2014	7.7p - April 2015
Price to deliver 5% ROI	£ 8,260.00	£ 6,165.00	£ 5,955.00	£ 5,595.00	£ 5,260.00	£ 4,965.00	£ 4,720.00	£ 4,490.00
Price to deliver 8% ROI	£ 6,110.00	£ 4,530.00	£ 4,390.00	£ 4,105.00	£ 3,845.00	£ 3,628.00	£ 3,435.00	£ 3,267.00

Figure 4: Installed price required to deliver ROI for 2.6kW PV System under DECC Tariff Scenario

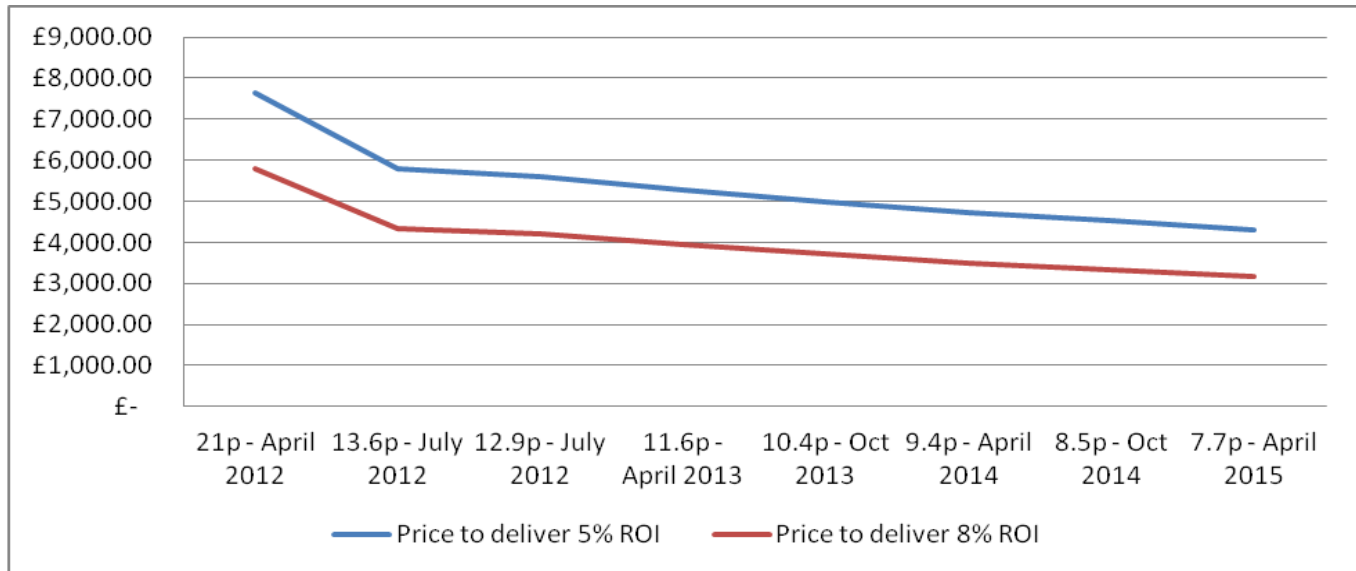


Whilst the direction of travel (regular planned and volume led degression) appears certain, the consultation does ask for views on the detail and implementation of this degression policy.

One further point to note is that DECC state they have no intention of stopping degression when tariffs reach 8.5p/kWh which is equivalent to 2 ROCs, the support provided for off-shore wind. Solar energy at this tariff is more-cost effective than the marginal technology for meeting the UK renewable energy target. However DECC argue it would still be inefficient use of funds if above target returns were achievable at the 8.5p/kWh rate.

Tariff Lifetime

DECC are also consulting on whether to reduce the tariff lifetime for PV systems from 25 years to 20 years. Stating that this lifetime neither reflects the economically useful life of PV systems (over 25 years) or the investment horizons of consumers (10-15 years). JDS Associates has re-modeled the scenarios set out in Figure 3 and 4 with this reduced tariff lifetime. Due to this curtailment of tariff lifetimes, system prices will need to fall further for the target rates of return to be achieved.

Figure 5 – Required System Price to deliver ROI with 20yr tariff lifetime

Consultation 2B – Non PV and wider scheme issues

Energy Efficiency Requirements

In the Phase 1 consultation document DECC set out options for linking energy efficiency with FiT eligibility. These were either to require a minimum EPC “Level C” before the FiT can be accessed or to require the consumer to undertake all measures falling under the Green Deal Golden Rule.

DECC have announced that they now propose to require EPC level D in order to access the FiT. This is an improvement on Level C and according to DECC should allow up to 50% of households to qualify automatically. However many in the solar industry had argued that no energy efficiency requirement should be in place so this proposal may still represent a disappointment.

Indexation

The 2B consultation document includes a lengthy discussion on whether to remove the indexation of generation and export tariffs. It asks for views on whether tariffs should move from index linked to nominal rates. Assuming that on balance it may make sense for indexation to remain in place it also asks for views on whether to move from RPI to CPI index. It may be important for industry to set out a robust case on the need for indexation if it is not to be watered down/removed at this review or potentially in the future.

Export Tariffs

DECC state that export tariffs at 3.1p/kWh may not be reflecting the true value of exported electricity which has been modeled at between 2.9 and 5.7p/kWh for metered electricity. The consultation states that there may be a case for increasing the export tariff, however it is also noted that electricity suppliers do not currently receive a revenue benefit from this export as it is not possible to meter it.

An increase to the export tariff could be very valuable to FiT eligible technologies. Without further detail on the Government's plans for a review it is difficult to assess how likely this will be. Contributions from industry stating the importance of this and setting out ideas for the review could be important

Multi-Installation Tariff

A multi-installation tariff at 80% of the rate for single installations will apply for any organization that registers more than 25 installations to the FiT scheme from 1st April onwards. However it is important to note that **consultation 2B proposes that "commercial" multi-installations will receive a tariff equivalent to the stand-alone tariff from October 2012ⁱⁱⁱ. This could be as low as 4.5p/kWh. This could mean that rent-a-roof models are not viable from October onwards.**

Micro-CHP

The FIT consultation proposes an increased tariff support for micro-CHP with a capacity of 2kW or less of 12.5p/kWh from an original 10p/kWh (estimated current tariff is 11p/kWh due to indexation). A support cap of 30,000 installations has been retained with a review of tariff and deployment levels triggered at the point of 12,000 installations to provide budget security, thus maintaining the pilot nature of FIT micro-CHP support.

Micro-CHP is the only technology that sees its proposed FIT support level increased under the Consultation. The principal reasons cited for that are:

- the key role that the technology can play in a portfolio of low-carbon domestic technologies
- the role of micro-CHP as a transitional alternative to gas boilers particularly in urban areas
- the need to reduce high current manufacturing costs
- the low uptake under the FIT scheme – there were just 315 registered micro-CHP installations compared to the initially predicted 8,250

As opposed to other technologies eligible for FIT support, no capacity-based degeneration is foreseen for micro-CHP under the scheme, as the installation ceiling and scheduled review at 12,000 units per se imposes sufficient cost control.

Additionally it is suggested that unlike proposals in Phase 1 of the FITs on PV, energy efficiency requirements to the support of building mounted technologies, such as micro-CHP, could create significant uptake disincentives. Therefore energy efficiency requirements equivalent to PV are not recommended for micro-CHP although further views on this are being sought during the Consultation process.

Anaerobic Digestion and Wind

DECC are proposing to freeze tariffs for AD of up to 500kW, consistent with the constraint that no tariffs are increased from their current levels. They will however increase by RPI from 1 April 2012. Tariffs for AD above 500kW will continue to be set at the 2ROC equivalent level i.e. 9.0p/kWh

Tariffs for small scale wind are affected by DECC's "budget restraint" initiative and therefore reduced to 21p/kWh which is the highest rate available for solar PV. Tariff Degression of 5% p.a. will also begin from 2014 for non-PV technologies with some capacity triggers also included. Full tariffs are shown in the table below:

Figure 6 – Proposed tariffs for non-PV technologies^{iv}

Technology	Tariff band (kW capacity)	Current tariffs (i.e. no change to current policy)	Proposed tariffs from Oct 2012
Hydro	• 15	22.0	21.0
	>15-• 100	19.7	19.7
	>100-• 2000	12.1	12.1
	>2000-• 5000	4.9	4.5
Wind	• 1.5	35.9	21.0
	>1.5-• 15	28.1	21.0
	>15-• 100	25.4	21.0
	>100-• 500	20.7	17.5
	>500-• 1500	10.4	9.5
	>1500-• 5000	4.9	4.5
AD	• 250	14.7	14.7
	>250-• 500	13.7	13.7
	>500-• 5000	9.9	9.0
Micro-CHP	• 2 kW	11.0	12.5

Preliminary Accreditation

DECC is also consulting on proposals to offer generators preliminary accreditation, confirming the tariff that will be received prior to installation and commissioning. This is seen as an important feature if more frequent degression of tariffs is to occur without causing undue uncertainty. Current proposals only allow pre-accreditation for wind projects over 50kW and all Anaerobic Digestion and Hydro projects.

Community Projects

Views are requested on the definition of community projects and possible uses (e.g. higher tariffs) for such a definition.

DECC propose to reduce the tariff for non-community owned (i.e. commercial) multi-installation propositions to the equivalent of the standalone tariff by October 2012. This could be as low as 4.5p/kWh. Social housing propositions will continue to receive the multi-installation tariff at 80% of the individual tariff. In addition, community schemes may be able to apply for some form of preliminary accreditation, recognizing that they take longer to develop.

Responses

The closing date for responses to consultation 2A is 3rd April

The closing date for responses to consultation 2B is 26th April

Contact:

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JDS are experts in sustainable energy regulation, focused exclusively on helping those who wish to promote sustainable energy to understand and influence policy developments in the sector. We also have extensive modeling and scenario capability for Feed in Tariffs.

END-NOTES

ⁱ Source: DECC FiTs consultation 2A pg10

ⁱⁱ Source: DECC FiTs consultation 2A pg17

ⁱⁱⁱ Source: DECC FiTs consultation 2B pg39

^{iv} Source: DECC FiTs consultation 2B pg19