

## **Ofgem response to comments on our draft guidance entitled “Guidance for generators: Co-location of electricity storage facilities with renewable generation supported under the Renewables Obligation or Feed-in Tariff schemes”**

On 14 December 2017, Ofgem published a draft of the ‘Guidance for generators: Co-location of electricity storage facilities with renewable generation supported under the Renewables Obligation or Feed-in Tariff schemes’ for an eight week comment period. This guidance was developed to provide clarity to participants about the treatment of storage facilities within the framework of the schemes in anticipation of increased uptake of co-located storage.

The comment period closed on 8 February 2018. We have reviewed all responses and, where appropriate, updated the guidance document. The final version of the document was published on 22 June 2018.

In addition to this guidance we have published an update to the ‘Feed-in Tariff: Guidance for Licensed Electricity Suppliers’<sup>1</sup> to ensure this document aligns with the guidance and provide further information for Feed-in Tariff (FIT) licensees about their responsibilities with regards to installations with co-located storage. We have also published an update to the ‘Feed-in Tariff: Guidance for Renewable Installations’<sup>2</sup> to align it with the new guidance.

### The comment period

During the comment period we held three workshops, where stakeholders were invited to discuss the guidance, these were:

- In Glasgow on 11 January 2018,
- In London on 16 January 2018, and
- An online webinar on 17 January 2018.

We would like to thank all stakeholders who attended these workshops and responded during the comment period. We have summarised the key themes raised by stakeholders below and how we have responded to these comments.

### Summary of responses

In total nineteen responses were received. Seven of these responses came from suppliers, aggregators or FIT Licensees, five from trade associations, five from generators and installers, one from a consumer body and one from the electricity system operator – National Grid Electricity Transmission.

The majority of comments related to co-locating storage with an installation accredited under FIT and primarily centred on metering arrangements. A few respondents also commented on the principles for co-locating storage with accredited generation and co-locating storage with generation accredited under the Renewables Obligation (RO).

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<sup>1</sup> <https://www.ofgem.gov.uk/publications-and-updates/feed-tariffs-guidance-licensed-electricity-suppliers-version-10>

<sup>2</sup> <https://www.ofgem.gov.uk/publications-and-updates/feed-tariffs-guidance-renewable-installations-version-12>

## Comments on principles of co-location

Two respondents requested further clarity regarding the third principle, that installing co-located storage will not impact the Total Installed Capacity (TIC) of the generating station or installation. These respondents seemed to be referring to the role that the TIC and Declared Net Capacity (DNC) have in validating data submissions on a monthly basis rather than the TIC and DNC themselves, as these are used to calculate an estimate of the expected generation output of a generating station or installation. These respondents noted that there could be instances where the output of a generating station or installation with co-located storage may exceed its rated capacity in a settlement period. However, the respondents also noted this would be unlikely to be the case when generation output is considered on a monthly basis.

## Ofgem response to principles of co-location comments

We note that respondents are correct in that there may be instances where the output of generating station or installation may be higher than the rated capacity if the station or installation is generating at full capacity and the storage device is also discharging. However, the definitions of TIC and DNC are based on the capacity at which the installation or station could be operated for a sustained period. It is our view that storage devices do not discharge over sustained periods and so should not be considered when determining the TIC and/or DNC of a station or installation.

We have automated systems and manual processes in place to validate output data submissions made by RO generating stations on the Renewable and CHP Register. Where output submissions exceed expected feasible generation, this will be flagged to the user who can enter any information relevant to the data anomaly<sup>3</sup>.

Our guidance document 'Feed-in Tariff: Guidance for Licensed Electricity Suppliers' provides information about how FIT licensees may use tolerance checks to identify installations with co-located storage.

## Renewables Obligation comments

A few respondents requested confirmation if the rule for input electricity to RO generating stations would be applied to stations with co-located storage. This rule allows input electricity not to be deducted from their generating station's output if the input electricity for a reporting period does not exceed 0.5% of the gross generation.

## Ofgem response to Renewables Obligation comments

We confirm that, assuming input electricity to the generating station is being metered, this rule will continue to apply to RO accredited generating stations with co-located storage and this is noted in the guidance document.

## FIT comments

### **Export metering arrangements**

Several respondents noted that the FIT scheme requirements restrict the number of scenarios in which metered export payments can be claimed when storage is co-located with a FIT

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<sup>3</sup> Our guidance document 'Renewables Obligation Guidance for Generators' provides information about how to respond to any queries about output data submissions on page 52. <https://www.ofgem.gov.uk/publications-and-updates/renewables-obligation-guidance-generators>

installation. In bi-lateral discussions, industry stakeholders have indicated that they think other design configurations with co-located storage may be able to satisfy the export metering requirements.

Several respondents commented that FIT installations which claim metered export payments may no longer be entitled to continue receiving export payments if co-located storage is installed which can also import electricity from the grid. This is because in such a configuration the export meter alone would not be able to measure the export from the FIT installation. These respondents suggested that such installations with TIC of 30kW or less should be eligible to claim deemed export payments instead. FIT installations with TIC of 30kW or less are eligible to claim deemed export payments if it is not possible or practicable to meter the export from the installation.

Some respondents also asked questions about the interactions of smart meters with FIT installations with a TIC of 30kW or less, currently claiming deemed exports and in particular those with co-located storage. Some respondents also stated that for such FIT installations, where the FIT Licensee is not also the property's electricity supplier, they consider the administration fee paid to the Data Communications Company (DCC) high enough that it is no longer cost efficient for these installations to claim metered export payments.

### **Ofgem response to export metering arrangement comments**

In our draft guidance, we did identify a viable scenario where the export meter requirements could be satisfied and metered export payments made. To date we have not yet received an application for accreditation containing any other design configurations than those presented in our guidance. We may update our guidance from time-to-time as we become aware of alternative co-location scenarios that satisfy the requirements of the schemes.

We have not to date received any applications from FIT operators to move from claiming metered export payments to deemed export payments. Any such decision would be made on a case-by-case basis. We may update our publish guidance material should we make any such decision.

We note that the comments on the interactions with smart meters do not relate directly to the co-location of storage with FIT installations but instead focus on the requirements which must be satisfied for deemed export to be claimed. Our expectation is that suppliers should be working to understand whether or not export at their FIT installations can be metered and to switch installations from deemed export payments to metered export payments as appropriate. Industry need to establish clear processes to communicate the required information between parties. Energy UK have produced a paper setting out the challenges raised by the interaction of the smart meter roll out and the FITs scheme and identifying potential solutions. They are using this as a basis to work with their members to produce a timeline to compliance. We will consider if any further guidance on the interaction of smart meters with FIT installations is required following the completion of Energy UK's work of this timeline.

### **FIT Licensee comments**

A number of FIT Licensees requested further clarity about their responsibilities when assessing FIT accreditation applications with co-located storage. The Renewable Energy Consumer Code (RECC) raised concern that there may be a number of small scale FIT installations with co-located storage installed where the metering configuration may have negatively affected the installation's eligibility to receive FIT payments. They suggested that an interim solution be introduced for these installations until correct metering arrangements can be installed to restore compliance.

## **Ofgem response to FIT Licensee comments**

Along with the guidance, we have updated our guidance document 'Feed-in Tariff: Guidance for Licensed Electricity Suppliers' to set out the responsibilities of FIT licensees with regards to installations with co-located storage. Our Compliance team is also working to support FIT licensees in this work and how to deal with instances of non-compliance.

## **Bi-directional metering comments**

During the comment period, we asked stakeholders a number of questions about their experience with and understanding of bi-directional meters. Only a few respondents provided any response to these questions. However, from the responses we did receive it was unclear if there is common understanding and experience of these meters across industry stakeholders. No respondents were able to provide details of specific bi-directional meter models.

## **Ofgem responses to bi-directional metering comments**

Since we published the draft guidance we have sought advice on bi-directional meters and used this to inform our updated guidance in which we have included some indicative scenarios. We will review proposals to use bi-directional meters made by Generators on a case-by-case basis.

## **Other Response Themes**

### **Consumer protection and installations standards**

RECC noted their concern that there is currently no installation standard similar to the Microgeneration Certification Scheme (MCS), which does not cover co-located storage. They noted this could lead to variations in how storage facilities are installed and the information provided to FIT operators, such as single line diagrams (SLD) and information regarding the storage facility, which could cause issues for our administration. They also expressed concern about the lack of consumer protection and reliance on installers and sales representatives to provide accurate information to consumers.

### **Ofgem response to Consumer protection and installations standards comments**

We share the concerns raised and we understand that the MCS Standards Management Group and Management Panel are currently preparing a business case to expand the scope of the MCS to cover electrical energy storage<sup>4</sup> and we are supportive of this work.

### **Interaction with other schemes and legislation**

Some respondents requested clarity about scenarios in which an RO accredited station could also satisfy the requirements of the Capacity Market.

### **Ofgem response to Interaction with other schemes and legislation comments**

As we noted within the draft guidance this is beyond the scope of the document and we would recommend operators take independent technical and legal advice. We have used the responses to make changes to the draft guidance and have also made some amendments following further internal consideration. Table 1 lists the changes we have made and explains why we made them.

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<sup>4</sup>[http://www.microgenerationcertification.org/images/Steering\\_Group\\_Decisions\\_and\\_Actions\\_Paper\\_v1.0\\_5th\\_December\\_2017\\_FINAL.pdf](http://www.microgenerationcertification.org/images/Steering_Group_Decisions_and_Actions_Paper_v1.0_5th_December_2017_FINAL.pdf)

Table 1 - Changes to the draft guidance

Section of the final guidance document	What has changed?
Overview	The definition of co-located storage has been clarified. This has been done following comments by two respondents that the previous wording could limit or cause confusion about whether some co-located storage configurations are included within the definition.
Introduction, Paragraph 1.4	Additional text has been inserted to make clear the scenarios included within the guidance cover fixed storage devices only. We note that if we receive applications to co-locate a mobile storage device with an accredited generating station or installation we will update the guidance to reflect this.
Introduction, Paragraph 1.8	Additional text has been inserted to note that if storage is installed in such a way that the generating station or installation is not entitled to continue receiving support, there may be scope to reverse the change and restore eligibility.
Chapter 2, Paragraph 2.6	The terms Total Installed Capacity (TIC) and Declared Net Capacity (DNC) have been set out in full.
Chapter 2 Paragraph 2.14	Some additional wording has been included to make clear that the ability to claim REGOs may be affected by co-locating storage. The ability to claim REGOs is dependent upon the operators to measure only the generation from the generating station, in the same way as this is required under the RO.
Chapter 3 Paragraphs 3.7, 3.17, 3.20, 3.23 and 3.26	References to ownership by different or third parties has been removed. Respondents noted that this could limit the number of scenarios operators may consider could be implemented and had the potential to cause confusion.
Chapter 3 Paragraph 3.37	An additional requirement to provide the date the storage facility is installed and became operational has been included in the information to provide when notifying us of a change to an installation. Providing this information at notification will remove the need for its request at a later date.
Chapter 4 Paragraph 4.17–4.19	These paragraphs have inserted to provide information in relation to bi-directional meters and their use with FIT installations.
Chapter 4 Scenarios	The order of the example scenarios have been re-ordered to group together those relating to installation claiming deemed export payments, those claiming metered export payments and scenarios more relevant for larger scale installations. Some additional scenarios have also been added these include: <ul style="list-style-type: none"> <li>- Scenario 4.1 in which co-located storage is installed after the generation meter, this configuration is sometimes referred to as being AC coupled. This was inserted to provide greater clarity.</li> <li>- Scenario 4.9 in which co-located storage is installed in close proximity to the FIT installation with its own MPAN and Scenario 4.10 in which storage is co-located and is supplied by the FIT installation via a private wire. These scenarios were included following stakeholder questions as to whether these approaches used with RO generating stations could be used under the FIT scheme.</li> </ul>
Chapter 4 Scenario 4.6, paragraph 4.42	Some additional text has been included to highlight there are other design approaches which may achieve the same effect.

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<p>Chapter 4 Paragraph 4.64</p>	<p>An additional requirement to provide information of the date the storage facility is installed and became operational has been included in the information to provide when notifying us of a change to an installation. Providing this information at notification will reduce the need for its request at a later date and help make the process more efficient.</p>
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