

**To all with an interest in  
onsite generation**

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Dear Colleague

**Import supply meters affected by onsite generation**

Since the introduction of the Feed-in Tariff (FIT) scheme in 2010, an increasing number of consumers have installed renewable electricity generating equipment, such as solar photovoltaic (PV) at their homes or premises. In some cases the import supply meter<sup>1</sup> is being affected by this onsite generation. This sometimes results in inaccurate meter readings that can lead to billing issues and affect the accuracy of electricity settlement<sup>2</sup>.

The National Measurement Office (NMO) is responsible for ensuring that the requirements in the Electricity Act, with respect to the accuracy of meters, are met by suppliers and distribution companies. As the electricity markets regulator, Ofgem has an important role in protecting the interests of existing and future electricity consumers. We have been working together with industry parties to try to understand this issue better and to develop solutions to protect consumers with onsite renewable electricity generating equipment, by ensuring accurate meter readings.

This is a complex problem which interacts with different parts of the electricity system. Identifying and resolving the faulty meters requires cooperation from different industry parties. We believe this has led to gaps in identifying and then correcting problems. We welcome the proactive steps that have been taken already by industry participants to resolve this issue going forward.

This joint letter sets out the issues as we understand it and clarifies the current obligations and expectations on industry parties. Alongside this letter, Ofgem will publish a domestic consumer fact sheet, to answer their questions and to assist them if they suspect their meter is being affected.

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<sup>1</sup> The import supply meter measures the electricity a consumer uses from the grid.

<sup>2</sup> Electricity settlement is the process for comparing the amount of energy that an electricity supplier has arranged to be put on to the network with the amount that their customers have consumed

## Causes of the Problem

Historically, few domestic properties installed onsite generation. The current metering system and equipment was designed and configured to record meter electricity flows from the distribution network to consumer premises. The increasing number of onsite generation sites has in some cases resulted in metering difficulties at these premises. The most common ways the import supply meter can be affected are:

- **The import supply meter runs backwards.**  
To detect theft and prevent tampering, since the 1980s meters have been fitted with backstops, which prevent the meter running in the wrong direction. However, there are still some early meters which are not fitted with these backstops. Where onsite generation is connected at sites with meters without backstops exporting electricity will cause the meter to run backwards. As a result, the consumer's import meter reading will be reduced by the amount of electricity that they have exported (for which they are compensated under separate arrangements). This may result in under-billing and the consumer not paying for electricity they have used. When this issue is discovered, the supplier may recalculate the consumers bill over the period for which the meter was operating incorrectly and charge the consumer for the shortfall (this is known as back-billing). In most cases the onsite generation exports are unmetered and the supplier will need to use estimates to calculate this bill.
- **The import supply meter treats all electricity the same way.**  
Some digital meters have been configured in a way that results in them adding any exported electricity to the imported electricity meter read. This can result in the consumer paying for both import and export electricity. Once this situation is identified, their historic bills will need to be estimated.

FIT installations with a total installed capacity of 30kW or less are not required to have an export meter in order to receive FIT export payments. Instead the export payments can be deemed<sup>3</sup>. If there is no export meter and the import supply meter is not accurately measuring the imported electricity there is no record or way to calculate the correct bill. This means once the metering issue has been discovered, consumption estimates are used to calculate the bill to rectify either over or under billing.

We have received complaints from consumers and their representatives about confusion, misinformation and inconsistency in this area. We have worked with industry to clarify current obligations.

## Current obligations

Action from multiple industry parties is required to identify and resolve these metering issues. Where there are existing obligations on parties we expect these should be complied with.

### *Onsite generation installers*

It is recommended that any renewable electricity-generating equipment and the person installing it are certified by an appropriate body. This should ensure a high-quality installation and a good level of consumer care and advice. The Microgeneration Certification Scheme (MCS)<sup>4</sup> is an eligibility requirement for the technology and installer under the FIT scheme for some PV and wind installations.

However, Ofgem has received anecdotal evidence that some installers are telling consumers that a backward-running meter is an additional benefit of FIT. This is not the

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<sup>3</sup> Metering requirements under the scheme can be found on the FIT pages of the Ofgem website <https://www.ofgem.gov.uk/environmental-programmes/feed-tariff-fit-scheme>, generation for micro-CHP, AD, solar PV and wind is deemed at 50%. Generation for hydro is deemed at 75%.

<sup>4</sup> <http://www.microgenerationcertification.org>

case. Consumers should continue to be metered and billed for all the import electricity they use. Information on how FIT works and its benefits can be found on the Energy Saving Trust website<sup>5</sup>.

Installers should provide accurate information to consumers. If an installer provides wrong or misleading information the consumer can complain to the Renewable Energy Consumer Code (<http://www.recc.org.uk/consumers/how-to-complain>). The complaint will follow the Department of Energy and Climate Change FIT dispute resolution process<sup>6</sup>.

### *Suppliers*

The Electricity Act 1989 sets requirements for electricity meters used for billing purposes. Under Schedule 7<sup>7</sup> of the Electricity Act, customers of electricity suppliers who are charged by reference to the quantity of electricity supplied to them must have their supply provided through an appropriate meter. Unless a customer offers to supply an appropriate meter themselves, it must be provided and maintained by the supplier.

We expect that where licensed electricity suppliers are notified of a problem with the import supply meter, or where their own internal systems identify a possible problem, they will investigate and resolve this as soon as possible. This is highlighted in paragraph 5.17 of the current FIT guidance document<sup>8</sup>. The statutory responsibility for Schedule 7 (with the exception of paragraph 12) sits with the NMO.

The NMO does not consider meters affected by on-site generation<sup>9</sup> to be appropriate, as required by the Electricity Act, because of the negative impact on consumer billing and electricity settlement. Those meters that are deemed inappropriate for the purposes of the Electricity Act should be exchanged. If the supplier is aware the meter is inappropriate and does not take steps to change the meter they will not be meeting the obligations they have under the Electricity Act.

In line with the Standards of Conduct (SOC)<sup>10</sup>, Ofgem expects consumers to be treated fairly by suppliers and their representatives and in accordance with legislation and the relevant back-billing principles. The SOC is enforceable and came into force on 26 August 2013. The SOC covers three broad areas; behaviour, information and process. The onus will be on suppliers to embed fair treatment of consumers in every level of their organisation so they behave in an honest, fair, transparent, appropriate and professional manner. Suppliers will also have to provide information that is clear, accurate, complete, appropriate, relevant and not misleading. They will have to ensure that they are easily contactable, act promptly and courteously to put things right. A supplier's customer service arrangements and processes must be complete, thorough, fit for purpose and transparent.

Where a consumer is unhappy with the service received from their energy supplier they should raise this through the supplier's formal complaints process. If the consumer is unable to resolve the issue with their supplier, they should escalate it to the Energy Ombudsman<sup>11</sup>.

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<sup>5</sup> <http://www.energysavingtrust.org.uk/Generating-energy/Getting-money-back/Feed-In-Tariffs-scheme-FITs>

<sup>6</sup> <https://www.gov.uk/government/publications/dispute-resolution-processes-for-feed-in-tariff-complaints>

<sup>7</sup> <http://www.legislation.gov.uk/ukpga/1989/29/schedule/7>

<sup>8</sup> is <https://www.ofgem.gov.uk/ofgem-publications/85460/fitsupplierguidanceversion6.0final1.pdf>

<sup>9</sup> Import supply meters that either run backwards or those that treats all electricity in the same way.

<sup>10</sup> The Standards of Conduct require suppliers to treat their customers fairly. More information on the standards conduct is available from our website: <https://www.ofgem.gov.uk/press-releases/new-standards-conduct-suppliers-are-first-step-simpler-clearer-fairer-energy-market> or for non-domestic <https://www.ofgem.gov.uk/simpler-clearer-fairer/information-business-consumers>

<sup>11</sup> More information on the dispute resolution process is available on the Energy Ombudsman website: <http://www.ombudsman-services.org/energy.html>

## *Distribution Network Companies*

The FIT licensee and the import electricity supplier are not always the same. This can make it more difficult to identify the issue with the meter. However, consumers are legally required to notify the network operator of any generation that is connected to the distribution network. The installer should either advise the consumer to complete the notification Engineering Recommendation G83 or G59 forms<sup>12</sup>, or complete them on the consumer's behalf. The MCS has reminded installers of their obligations in this area.

Distribution Network Companies (DNOs) have obligations under the Balancing and Settlement Code (BSC). These obligations should always ensure that suppliers are made aware if onsite generation is being connected to properties for which they are the responsible supplier. If the generation is less than 30kW, the BSC (section 3.12 of BSCP515) obliges the DNO, upon receipt of the G83 or G59 notification, to notify the import supplier of the premises where the generation is installed. They have ten working days to do this<sup>13</sup>. This flow of information should allow suppliers to identify premises with onsite generation and then check that the metering is appropriate.

## **Progress**

Over the last year we have worked with the industry to understand the problem, clarify current obligations, and look at industry-led solutions. We welcome the engagement, progress and commitments that have been made to date. These include:

- A list of potentially affected meters, available from the Association of Meter Operators (AMO) website<sup>14</sup>. This is a working document which will evolve and be updated over time. It is accompanied by a technical document setting out the issue.
- Energy UK members have agreed an approach to estimating domestic bills in this situation, and have committed to applying the existing back billing principles. These include:
  - taking into account the type and size of generation equipment, and seasonal variation;
  - treating consumers in a fair and reasonable manner;
  - where possible, securing agreement with the consumer before issuing a revised bill.

The full list is available from Energy UK's website<sup>15</sup>.

- In February 2013, Elexon issued a reminder to BSC signatories about the obligation on DNOs under BSCP515. Ofgem followed this by issuing requests to DNOs to explain the systems they have to pass on the appropriate information to suppliers. We understand that all DNOs have these systems in place and now comply with the obligation.
- The Microgeneration Certification Scheme licensee (Gemserv Limited), together with the industry, is exploring future solutions to identify and notify the relevant import supplier when a meter may be affected.

## **Next steps**

We welcome the positive steps being made over the last year and look forward to further improvements. We consider that the measures set out in this letter will result in greater awareness of the issue, ensure that there are appropriate processes in place to resolve the issue, and ensure consistency in treatment of consumers. We also expect a consistent approach to back billing, similar to what has been agreed for the domestic sector, to be

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<sup>12</sup> <http://www.energynetworks.org/electricity/engineering/distributed-generation/distributed-generation.html>

<sup>13</sup> [www.elexon.co.uk/wp-content/uploads/2013/11/bscp515\\_v12.0.pdf](http://www.elexon.co.uk/wp-content/uploads/2013/11/bscp515_v12.0.pdf)

<sup>14</sup> <http://www.meteroperators.org.uk/news.php>, 20 August 2013.

<sup>15</sup> <http://www.energy-uk.org.uk/customers/feed-in-tariffs/what-happens-if-my-electricity-meter-behaves-unexpectedly.html>

developed for micro businesses. We will continue to engage with stakeholders and keep under review the effects onsite generation is having on import meters.

The rollout of smart meters will provide consumers with greater information regarding their consumption of electricity. The technical specification for these meters<sup>16</sup> includes the ability to measure exported electricity. As older meters are replaced we expect fewer consumers to be affected by this issue.

If you have any questions or comments about this letter please contact Tricia Wiley ([tricia.wiley@ofgem.gov.uk](mailto:tricia.wiley@ofgem.gov.uk)) or David Moorhouse ([david.moorhouse@nmo.gov.uk](mailto:david.moorhouse@nmo.gov.uk)). Further information and our consumer factsheet is available on our website [www.ofgem.gov.uk](http://www.ofgem.gov.uk).

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<sup>16</sup> These will be the meters that meet the Smart Metering Technical Specification 2 (SMETS 2).