

# Reviewing the microgeneration market - updated

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**In 2007 HM Treasury asked Ofgem to review the market arrangements for customers wanting to sell power from household electricity generation units to energy suppliers.**

The Treasury asked Ofgem to consider:

- whether it is easy for customers to find out how much suppliers will pay them for exported electricity
- whether it is simple for customers to compare the offers suppliers make, and
- whether the price paid reflects the value of microgeneration to suppliers and climate change objectives as a whole

## ► What is microgeneration?

Household electricity generation – or microgeneration – refers to the variety of units available allowing customers to generate electricity or heat for their home or business. They include:

- Small-scale solar systems which convert energy from the sun into electricity
- Solar powered hot-water systems
- Micro-hydro units which use energy from flowing water to generate electricity
- Small roof-top wind turbines, and
- Domestic combined heat and power units, powered by mains gas or other fuels. They provide heating and hot water like a normal boiler but they also generate electricity

There are currently around 100,000 microgeneration units in Britain. The vast majority of the units are thermal technologies such as solar-thermal water heating.

Customers can sell back any surplus power from some of these units (such as photovoltaic solar panels and roof-top wind turbines) to energy suppliers, but in the past this has not been an easy process to go through. The Climate Change and Sustainable Energy Act, passed in 2006, granted the government the power to require that suppliers offer fair prices to customers wanting to sell surplus power.

## ► What are Ofgem's findings?

Ofgem's report shows that suppliers have stepped up their efforts to offer a range of tariffs to customers wanting to sell back electricity. Importantly these appear to be a fair reflection of the wholesale price of electricity and other benefits that come from locally sourced energy, for example a reduction in the amount of electricity lost as it travels long distances through the wires. This means that less electricity needs to be generated to cover those losses, which in turn lowers carbon emissions.

Customer response has been positive to the range of offers available (see table below). The number of customers that are signed on with suppliers to sell back surplus electricity has increased significantly over the last year to around 1,500 or so.

However Ofgem estimates that the payback on the costs of home electricity generation kits may take 20 years or more, given current market conditions. The payback period depends on several factors such as the technology being used, the price customers are being paid for electricity they sell and how much of the electricity generated is being used in the customer's own home.

## ► What incentives are available for customers who want to sell power?

The financial incentives for customers to sell home-made electricity are an important way of encouraging increased take-up of the units. Renewable microgeneration qualifies under the Renewables Obligation, which is the Government's main support subsidy for renewable electricity. It allows domestic customers to make money by claiming renewables obligation certificates (ROCs) according to the qualifying output of their microgeneration units. The certificates demonstrate that the energy is from green power sources and can be sold to energy suppliers. The suppliers themselves use

these ROCs to meet increasing targets for sourcing the electricity they sell from renewables. Some suppliers insist that the customer sells the ROCs to them as a condition of their offering.

Ofgem believes changes are needed so that financial support for microgeneration is easier to access.

## ► Next steps

The Government has pledged to review the current financial incentives for microgeneration as part of developing a new renewables strategy, and the conclusions of Ofgem's report will be fed into that review. In particular, Ofgem believes the market for exported electricity, which is still in its infancy, and household microgeneration in general, would be improved by better information to help customers find the best deal that suits their circumstances.

Customers also need easier access to financial incentives. Ofgem will continue to explore with Government ways of improving the efficiency with which the Renewables Obligation can be administered, particularly in relation to smaller generators.

Ofgem will also convene a meeting of the Microgeneration Forum in May 2008 to discuss the conclusions of this report.

### ► What packages do suppliers offer?

Suppliers offer customers a variety of ways to sell back power. The following tables set out how much suppliers pay for metered exported power, unmetered exported power and on total generation as at February 2008. Customers will need to consider this against several other factors such as the cost for electricity they use from their supplier. (Customers with

microgeneration units will still need to buy electricity from their supplier as the amount of power they produce is dependent on weather conditions and other factors). Some suppliers also charge customers for providing a meter needed to register the amount of power exported.

### Offers for metered exported power

Supplier	Key features of offer	How much will a customer get for exporting power	Price of electricity purchased from the supplier (calculated from monthly direct-debit tariffs)	Meter cost
<b>British Gas</b>	Customer reads their export meter quarterly and sends in reading  Customer claims Renewables Obligation Certificates (ROCs) separately	5p/kWh	12.27p/kWh	£30
<b>EDF</b>	Customer claims ROCs separately  Limited to microgeneration of less than 10kW	7.64p/kWh or 5p/kWh for small-scale hydro	11.10p/kWh	£70 to £200
<b>npower</b>	Limited to microgeneration of less than 6kW  Npower keeps revenue from ROCs	10.98p/kWh (although this varies by region)	11.64p/kWh	£60

(Table continues overleaf)

Offers for metered exported power continued

Supplier	Key features of offer	How much will a customer get for exporting power	Price of electricity purchased from the supplier (calculated from monthly direct debit tariffs)	Meter cost
<b>E-on</b>	<p>Customer reads their export meter quarterly and sends in reading</p> <p>Customer claims ROCs separately</p> <p>Limited to microgeneration of less than 5kW</p> <p>Only available for solar panels</p>	Solar: 8.79 to 11.26p/kWh depending on region	11.64p/kWh	£100
<b>Scottish Power</b>	Scottish Power collects ROCs but only pays out on exports	4.25p/kWh	11.20p/kWh	Free of charge
<b>SSE</b>	<p>Price includes payment for exported power and ROCs for the customer's output</p> <p>Only available for solar panels</p>	Solar: 18p/kWh	9.54p/kWh	Free of charge if an import customer

Source: Suppliers, February 2008

## Offers for unmetered exported power

Supplier	Key features	Tariff
<b>British Gas EcoSave scheme</b>	Customers claims ROCs separately for solar panels	Unmetered: £18 per year
<b>EDF Green Tariff</b>	Customers claim ROCs separately  Limited to microgeneration of less than 10 kW	Unmetered: £10 per kW per year
<b>npower Juice</b>	Limited to microgeneration of less than 6 kW  npower collects and pays ROC entitlement on generation  Import restricted to Juice tariff	Tariff: same as the follow-on rate applicable in region  Tariff paid on estimated volumes assuming 50% of generation is exported  Customer provides two generation readings per year
<b>E-on Solarnet</b>	Customer reads their export meter  Customer claims ROCs separately  Limited to microgeneration of less than 5kW  Currently only available for solar panels but will include micro combined heat and power	Solar: 8.18 p/kWh to 10.10 p/kWh depending on region  Solar (Economy 7) 9.10 p/kWh to 11.19 p/kWh  Unmetered: export volume estimated from customer characteristics

Source: Suppliers, February 2008

## Generation based microgeneration offers

Supplier	Key features	Tariff
<b>EDF</b>	<p>Customer reads their export meter</p> <p>Customer paid for all generation</p> <p>E-on appointed as ROC agent</p>	<p>Metered generation: 5 p/kWh for generation of less than 5 kW</p> <p>4.5 p/kWh for generation greater than 5 kW</p>
<b>Ecotricity</b>	<p>Customer reads their export meter</p> <p>Customer paid for all generation</p> <p>Ecotricity appointed as ROC agent</p>	Metered generation 4.5 p/kWh
<b>Good Energy Home Generation</b>	<p>Customer reads their export meter</p> <p>Limited to 10 kW installed generation</p> <p>Customer paid for all generation</p> <p>Good Energy appointed as ROC agent</p>	Metered generation 9 p/kWh
<b>Good Energy – Sell Us Your Energy (SUYE)</b>	<p>Good Energy appointed as ROC agent</p> <p>Tariffs dependent on volume of generation</p>	<p>SUYE A: 4 p/kWh for generation and 3 p/kWh for ROCs (for more than 2 MWh generated per year)</p> <p>SUYE B: ROCs paid at 3 p/kWh on generation (for less than 2 MWh generated per year)</p> <p>SUYE C: Electricity only tariff. Metering is £54.75 per year</p>

Source: Suppliers, February 2008