

# Feed-in-tariffs and on-site renewables

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- ▶ **Guaranteed payment for the on-site generation of energy from approved renewable sources.**
- ▶ **Electricity generated may be used on-site or exported at an additional tariff [3p/kWH].**
- ▶ **Users [business and domestic] gain by:**
  - ▶ Guaranteed payments for guaranteed period
  - ▶ Additional premium if electricity is exported
  - ▶ Offset purchase of grid electricity
  - ▶ Payments to domestic consumers not subject to income tax
- ▶ **The guarantees improve investment return to a target of at least 8% pa.**

- ▶ **Contribute to achieving the UK commitment of 15% renewable energy by 2020**
- ▶ **Capitalise on the on-site renewable capacity**
- ▶ **Contribute to achieving zero carbon buildings**
- ▶ **Offset need for additional power generation and network capacity**
  
- ▶ **BUT, does not link directly to reducing energy demand or energy efficiency**
  - **we can still waste the renewable energy generated**

### ▶ **RO Renewables obligation**

- ▶ ROCs generally used to support larger installations but do overlap with FiTs

### ▶ **RHI Renewable Heat Incentive**

- ▶ Similar to FiT but focussed on heat generation
- ▶ Current consultation - so ideas may change

### ▶ **HESS Heat and Energy Saving Strategy**

- ▶ Aim to achieve zero carbon in existing homes
- ▶ Includes district heating and CHP
- ▶ Current DECC consultation closes 8 May

### ▶ **CESP Community Energy Saving Programme**

- ▶ Focused on measures in housing through CERT/energy suppliers

<b>Energy Source</b>	<b>Tariff p/kWH</b>	<b>Duration Years</b>
<b>Anaerobic digestion</b>	<b>11.5 - 9.0</b>	<b>20</b>
<b>Hydro</b>	<b>19.9 - 4.5</b>	<b>20</b>
<b>Solar PV</b>	<b>41.3 - 29.3</b>	<b>25</b>
<b>Wind</b>	<b>34.5 - 4.5</b>	<b>20</b>
<b>Micro-CHP (&lt;2kW)</b>	<b>10.0</b>	<b>10</b>
<b>Existing transferred from RO</b>	<b>9.0</b>	<b>To 2027</b>

- ▶ Once registered tariff is set over period - index linked
- ▶ Some tariffs reduce on subsequent years
- ▶ MicroCHP limited to first 30,000 installations [review at 12,000]
- ▶ Generation to be metered - initially 'deemed'

# Table of generation tariffs to 2020

Source: Government response URN 10D/535

Technology	Scale Scheme Year	Tariff level for new installations in period (p/kWh) (NB tariffs will be inflated annually)											Tariff lifetime (years)
		1 1/4/10 – 31/3/11	2 to 31/3/12	3 to 31/3/13	4 to 31/3/14	5 to 31/3/15	6 to 31/3/16	7 to 31/3/17	8 to 31/3/18	9 to 31/3/19	10 to 31/3/20	11 to 31/3/21	
Anaerobic digestion	≤500kW	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	20
Anaerobic digestion	>500kW	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	20
Hydro	≤15 kW	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	20
Hydro	>15-100 kW	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	20
Hydro	>100 kW-2 MW	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	20
Hydro	>2 MW – 5 MW	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	20
MicroCHP pilot*	≤2 kW*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10*	10
PV	≤4 kW (new build**)	36.1	36.1	33.0	30.2	27.6	25.1	22.9	20.8	19.0	17.2	15.7	25
PV	≤4 kW (retrofit**)	41.3	41.3	37.8	34.6	31.6	28.8	26.2	23.8	21.7	19.7	18.0	25
PV	>4-10 kW	36.1	36.1	33.0	30.2	27.6	25.1	22.9	20.8	19.0	17.2	15.7	25
PV	>10-100 kW	31.4	31.4	28.7	26.3	24.0	21.9	19.9	18.1	16.5	15.0	13.6	25
PV	>100kW-5MW	29.3	29.3	26.8	24.5	22.4	20.4	18.6	16.9	15.4	14.0	12.7	25
PV	Stand alone system**	29.3	29.3	26.8	24.5	22.4	20.4	18.6	16.9	15.4	14.0	12.7	25
Wind	≤1.5kW	34.5	34.5	32.6	30.8	29.1	27.5	26.0	24.6	23.2	21.9	20.7	20
Wind	>1.5-15kW	26.7	26.7	25.5	24.3	23.2	22.2	21.2	20.2	19.3	18.4	17.6	20
Wind	>15-100kW	24.1	24.1	23.0	21.9	20.9	20.0	19.1	18.2	17.4	16.6	15.9	20
Wind	>100-500kW	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	20
Wind	>500kW-1.5MW	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	20
Wind	>1.5MW-5MW	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	20
Existing microgenerators transferred from the RO		9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	to 2027

\* Note the microCHP pilot will support up to 30,000 installations with a review to start when the 12,000<sup>th</sup> installation has occurred

\*\* | "Retrofit" means installed on a building which is already occupied ; "New Build" means where installed on a new building before first occupation ; "Stand-alone" means not attached to a building and not wired to provide electricity to an occupied building

- ▶ **Up to 50kW capacity = FiT**
- ▶ **Above 5MW capacity = RO**
- ▶ **Between 50kW and 5MW = choice of FiT or RO**
  
- ▶ **'Microgenerator' applications for RO before 15 July 2009 remain with RO**
- ▶ **'Microgenerator' applications between 15 July 2009 and 1 April 2010 transfer to FiT at 9.0 p/kWH supported to 2027**

- ▶ **Consultation closed 26 April 2010**
- ▶ **Aim to be operating by 1 April 2011**
- ▶ **Covering:**
  - ▶ air and ground-source heat pumps
  - ▶ solar thermal
  - ▶ biomass boilers
  - ▶ renewable combined heat and power
  - ▶ use of biogas and bioliquids
- ▶ **Aim for 12% RoI [6% for solar thermal]**
- ▶ **Tariff range: 1.5 to 18 p/kWH** [full list in URN 10D/542]
- ▶ **Mix of metered and 'deemed' measurement**
- ▶ **15 to 20 years support period**

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