

## **Waterwise Response to EEPH and DECC Call for Evidence on Green Deal Costs and Benefits**

**April 2011**

### **Annex 1**

**Water in the Green Deal – Britain-wide figures for carbon and water savings**

**Waterwise, March 2011**

#### **Number of homes in Great Britain**

A DECC press release on 30<sup>th</sup> November 2010

[http://www.decc.gov.uk/en/content/cms/news/101130\\_stats/101130\\_stats.aspx](http://www.decc.gov.uk/en/content/cms/news/101130_stats/101130_stats.aspx) lists total GB households as 26.5 million, using the English Housing Survey, Scottish House Condition Survey and Living in Wales survey.

#### **Number of British households for which water could usefully be included in the Green Deal**

##### **Showers**

Approximately 80% of households have a shower and about 50% of these own electric showers. So about 40% of households own mixer showers and can be retrofitted with water-efficient showerheads or shower inserts (from Waterwise's [‘The Water and Energy Implications of Bathing and Showering Behaviours and Technologies’ Final Report - April 2009](#))

##### **Taps**

It is assumed that all households have two pairs of hot and cold taps – one pair each for the kitchen and bathroom - which can be retrofitted with tap aerators. (Waterwise estimate)

##### **Toilets**

40% of toilets in use in 2009 have a cistern capacity of 7.5 litres or greater (English National Housing Survey), and can usefully be retrofitted with a dual-flush device. Therefore, it is assumed that toilet savings are possible for 40% of households through retrofitting with dual-flush.

***The water, carbon and energy savings for each of the two scenarios outlined in Annex 2 can be achieved in approximately 40% of households in Great Britain – 10.6 million households.***

(This is a conservative estimate, and it remains the case that all 26.5 million homes in Britain could have water efficiency measures undertaken on their taps.)

## **Water, energy and carbon emissions savings for Great Britain**

### **Showers and taps**

*Water savings of 20.4 litres per property per day (7.4 m<sup>3</sup>/year – 100% hot water savings), associated energy savings of 300 kWh per year and carbon emissions savings of 60kg per year could be achieved in approximately 40% of households in Great Britain – 10.6 million households. **The energy savings on a GB basis from including showers and taps in the Green Deal in 10.6 million homes in Great Britain would be 3.2 GWh per year, and the annual carbon emissions savings approximately 583,000 tonnes. Water savings would be 78,440 ML per year - enough to supply 600,000 households.***

### **Showers, taps and toilets**

*Water savings of 41 litres per property per day (15 m<sup>3</sup>/year – 50% hot water savings), associated energy savings of 300 kWh per year and carbon emissions savings of 60kg per year could be achieved in approximately 40% of households in Great Britain – 10.6 million households. **The energy savings on a GB basis from including showers, taps and toilets in the Green Deal in 10.6 million homes in Great Britain would be 3.2 GWh per year, and the annual carbon emissions savings approximately 583,000 tonnes. Water savings would be 159,000 ML per year - greater than the entire reservoir storage for the South West Water region.***

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