

If the whole nation got a smart meter we could save the same amount of energy as it takes to power every household in Aberdeen, Cardiff and Manchester for a year.

*Legal super to be added*

### Claim(s)

If the whole nation got a smart meter and made the average associated energy saving of 2%, we'd save 9,358,945,800kWh in a year. That's the equivalent of powering every household in Aberdeen, Cardiff and Manchester for a year.

### Summary

- Combined, the cities of Aberdeen, Cardiff and Manchester have 450,940 households
- If the average household saves 354kWh of energy per year with a smart meter and the average household uses 17,690kWh of energy per year in total - then the total national energy savings resulting from smart meters would be the equivalent of the energy usage of 529,053 households

### Supporting evidence

Combined, the cities of Aberdeen<sup>1</sup>, Cardiff<sup>2</sup> and Manchester<sup>3</sup> have a total of 450,940 households

### Average energy savings if every household in Great Britain had a smart meter

If each household saves 354kWh with a smart meter; and there are 26,437,700 households in GB<sup>4</sup>, then the potential total national energy savings resulting from smart meters equates to 9,358,945,800kWh.

354kWh (average household energy savings with a smart meter  
x 26,437,700 (total number of households in GB) = 9,358,945,800kWh

If the average household uses 17,690kWh of energy per year; then the 9,358,945,800kWh national energy saving is the equivalent of the energy usage of 529,053 households

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<sup>1</sup> 2011 Scottish Council Areas 2001 to 2011 Census Profile Comparator Tool  
<https://smartenergygb.box.com/s/5kmh9cjrnr9smp9wy61nt63yjkagiox>

<sup>2</sup> 2011 Census: Population and Household Estimates for Wales  
<https://smartenergygb.box.com/s/cxbzrxql35suc07ajmxj6zqvxo6svvg3>

<sup>3</sup> 2011 Office of National Statistics Census: Household Composition UK  
<https://smartenergygb.box.com/s/7kf5c3gg2xmzr1otwvkeod9k5iere3qm>

<sup>4</sup> Office for National Statistics - Households in the UK by region 1996-2017  
<https://smartenergygb.box.com/s/99fo9l7n613pshzq1cvef4jksrjd2vuf>

9,358,945,800kWh (national energy savings resulting from smart meters) / 17,690 (average annual energy usage per house hold) = 529,053 (total households powered)

### Average household energy consumption

Average gas consumption per house hold	= 13,801 kWh
Average electricity consumption per house hold	= 3,889 KWh
<u>TOTAL average energy consumption per house hold</u>	<u>= 17,690 <sup>5</sup></u>

### Average energy savings with a smart meter

The Government department for business, energy and industrial strategy (BEIS) continue to assume that average savings per customer, per year with a smart meter will be as follows: 2.8% for electricity; 2% for gas credit. <sup>6</sup>

This is corroborated by British Gas, the UK's largest supplier with 33% of the gas market and 22% of the electricity market<sup>7</sup>. They have demonstrated that their customers with a smart meter have saved 3% on both gas and electricity, on average, compared to traditional meter customers<sup>8</sup> This had a sample size of 78,000 participants.

### Claim figure calculations

Using the lowest average savings (2%) and the average household consumption (17,690kWh) the average saving per household equates to 354kWh.

Calculation: 17,690 / 100 x 2 = 354kWh

<sup>5</sup> Energy Consumption in the UK, BEIS, July 2017

<https://smartenergygb.box.com/s/m5ouijdrvzigdjhgre307vrttcsb92s>

<sup>6</sup> Smart Meter Rollout Cost Benefit Analysis, Part II Technical Annex, Aug 2016

<https://smartenergygb.box.com/s/vdywd48l9ckhyf96u93njqpa6usyjum>

<sup>7</sup> Ofgem, State of the Energy Market 2017 report

<https://smartenergygb.box.com/s/bfx7znocjyafdo39nd3tzobzxcux1f36>

<sup>8</sup> Further written evidence submitted by British Gas to the UK Parliament Select Committee, Sept 2016. <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/science-and-technology-committee/smart-meters/written/37835.pdf>