



Green attitudes help overcome costs of domestic renewable energy

A new survey from 2010 reveals that upfront costs of up to €14,000 and lengthy payback times can discourage even the most environmentally conscious citizens from installing domestic renewable technology, such as solar panels and wind generators. However, people signing up to a 'climate pledging' scheme were still at least 11 times more likely to install these technologies than the average person in the UK.

In the UK in 2007, domestic electricity was responsible for 23% of total GHG emissions. Yet just 0.5% of households generate electricity from renewable sources using micro-generation (microgen) technology, such as photovoltaic (PV) panels, wind generators or micro-hydro systems. This new study improves our understanding of the relationship between environmental values and behaviour in the context of microgen.

In the new study, researchers carried out a comprehensive online questionnaire between Jan-Apr 2010 to explore attitudes towards microgen technology among 201 environment-sensitive UK citizens belonging to a climate pledging initiative in Manchester. Each of the participants had made a public commitment to significantly reduce their CO₂ emissions to mitigate climate change. The researchers compared their responses with answers to the same questions from a survey of the national population in 2008.

The results revealed that 96% of pledgers agreed that there were risks to people in the UK from climate change, compared to 66% nationally. 91% agreed that they could help to reduce climate change by changing their behaviour; this figure was 63% for the national survey. Pledgers were also willing to pay an average of £5 more per month for low carbon electricity.

Overall, 52% of pledgers had seriously considered microgen technology, with solar proving the most popular option (63% of respondents). However, only 11% of pledgers had actually installed microgen technology in their own homes. The most frequent reasons given for not installing microgen technology were the initial cost (36% of respondents) and the time taken to recoup the money invested (17% of respondents). The average domestic PV system (2.2 kW capacity) costs approximately €14,000 to install and has a payback period of 15 years. Other reasons given for not installing included concerns about aesthetic appearance, uncertainty about environmental value, concerns about house resale and general inconvenience.

These results highlight that although microgen installation rates are higher among climate pledgers (11%) than the national population (0.5-1%), more than a third of environmentally-conscious pledgers still chose not to have microgen technology installed. This discrepancy, reflecting an 'attitude-behaviour gap', indicates that the ability to fulfil the ideal of environmental citizenship is limited by the financial costs involved.

The researchers point out that this study was carried out prior to Feed-In-Tariffs (FIT), which came into force in the UK in April 2010 guaranteeing payment for electricity generation and thereby reducing the payback period. Nevertheless, this survey emphasises the importance of cost as a potential barrier to microgen installation and a similar study post-FITs would help to clarify how far financial costs *directly* influence green behaviour, say the researchers. Other issues, such as consumer uncertainty about the relative environmental benefits of different types of microgen technology, could be tackled through more effective advertising campaigns in conjunction with new pricing and regulation policies.

Source: Upham, P. (2011). Environmental citizens: climate pledger attitudes and micro-generation installation. *Local Environment*. DOI: 10.1080/13549839.2011.631991

Contact: p.upham@leeds.ac.uk

Theme(s): Climate change and energy, Environmental information services

The contents and views included in Science for Environment Policy are based on independent, peer-reviewed research and do not necessarily reflect the position of the European Commission.

To cite this article/service: "[Science for Environment Policy](#)"; European Commission DG Environment News Alert Service, edited by SCU, The University of the West of England, Bristol.