

## **Submission to the Department of Communications, Energy and Natural Resources as part of the EDRT national consultation process proposing an innovative market-based financing mechanisms for energy efficiency renovation called Pay As You Save (PAYS).**

*The Energy Smart Community* is an initiative delivered by Codema and Gavin Harte.

**Codema** is the leading energy agency for Dublin. For over 10 years, it has been committed to improving the energy efficiency of Dublin homes and workplaces, while also creating sustainable solutions for the city's infrastructure. It acts as energy adviser to the four Dublin local authorities and also works with the private sector in developing an energy-smart city. For more information, visit [www.codema.ie](http://www.codema.ie).

Gavin Harte heads up ESD Training a consultancy for sustainable development. Gavin is a former Director of An Taisce and founder of Ireland's first eco-village in Cloughjordan, Co Tipperary.

### **The Energy Smart Community**

Is a scheme to facilitate homeowners within a defined geographical area to join together in a buying club to improve the energy efficiency of their homes while availing of energy-saving grants from Sustainable Energy Ireland.

<http://www.energysmartcommunity.com>

### **How it works**

An Energy Smart Community seeks to improve energy efficiency through the development of community clusters. The scheme seeks to develop:

- Enhanced community resources (both social and capital).
- Motivation through comparative association (keeping up with the Jones's).
- Independent and accessible energy saving advice for homeowners.
- Clustered take up of grants
- Economies of scale.
- Innovative financing mechanisms for energy efficiency renovation.

A full Energy Smart Community scheme involves six integrated steps. These are:

1. *Formation of an Energy Smart cluster*
2. *A Building Energy Rating for each homeowner that joins the cluster.*
3. *The generation of an advisory report listing possible improving measures.*
4. *The aggregation of all improving measures into one competitive tender.*
5. *Selection of the winning contractor from a panel of approved contractors and homeowner application for grants.*
6. *Quality assurance checks and grant processing.*

The scheme is currently piloting a community cluster in Drumcondra. We have held two cluster development meetings. Attendance at both meetings exceeded expectation with nearly 120 people attending our first Home Energy Saving Information Evening. Up take to the second step (a before and after BER) has been satisfactory with almost 30 homeowners signing up (20% uptake).

### **Community engagement a formula for success**

Recent research in the US and UK suggests that normative influencing through existing local community networks is the most effective means of incentivising people to save energy. (New Scientist Magazine 22<sup>nd</sup> of August 2009)

Energy Smart Community has the potential to facilitate large-scale community uptake of domestic energy improvement measures, however in our Drumcondra pilot we have identified some barriers.

### **Principle barrier**

Even with grant aid we have identified initial upfront capital expense as a significant barrier to the uptake of energy-efficient renovation.

### **Solution**

Energy Smart Community recommends the development of an innovative financing mechanism called PAYS to overcome this barrier.

### **Pay As You Save (PAYS)**

According to its developers in the United States “PAYS is a market-based system with built-in, no-cost incentives for customers, vendors, and capital providers to act in their own interests while producing unprecedented resource efficiency investment that will benefit society.”

PAYS is based on a very simple premise: that the cost of installing energy efficiency measures should be funded through the future savings made on that household's energy bills.

PAYS requires four robust and integrated elements in order to operate successfully. These are:

1. Independent certification that all products are appropriate and savings estimates exceed payments.
2. A tariff assigned to a meter location, not to an individual customer.
3. The monthly repayment must be less than the monthly average savings in energy costs from the energy efficiency improvement measures.
4. Billing and repayment linked a utility bill with disconnection for non-payment.

#### **1. Independent certification of PAYS measures is key.**

Identifying quality energy-saving products that “do what they say on the tin” is essential to generate the required trust for energy efficiency uptake. The role of certification needs to be independent of product suppliers to generate trust among householders. We believe an obvious co-ordinator for this work would be the local energy agencies throughout Ireland.

#### **2. A tariff that is locked to the property not to the individual.**

Most householders are put off installing energy saving measures, particularly the more expensive ones because they do not think they will get the benefit. “It just costs too much upfront” is the all too common response and given that people move house,

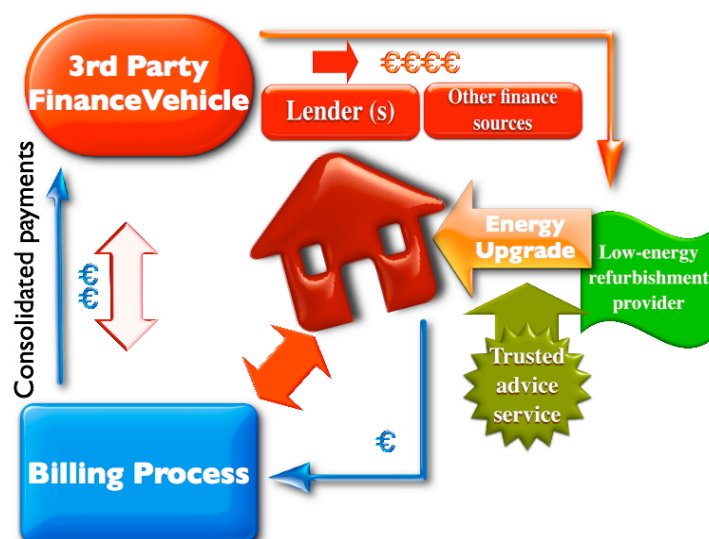
on average, every seven years, why would they bother? PAYS tackles this barrier because when a householder moves on, the home's new occupant continues to repay the charge.

### 3. Monthly repayments less than monthly amount saved in energy costs.

This action will permit customers to realise an economic benefit as soon as work is completed, and one that will increase as energy costs rise and the work is paid off. It will also mean any future occupants will view the arrangement as a net benefit, even if the repayment tariff remains in effect.

### 4. Robust financing, billing and repayment processes.

From initial evidence experienced through the Energy Smart Community cluster in Drumcondra, it would appear that financial institutions are already receptive to providing energy-improvement loans. However, PAYS would also require an integrated billing and repayment process to be set in place. Utility bills are probably the best vehicle for this purpose because all houses are connected and secondly, the likelihood of defaulting is cut by the need for continuing supply.



### PAYS in the United States

PAYS was developed in the United States and has been piloted a number of times with very positive results. For further information on the American experience, take a look at the following links.

<http://www.paysamerica.org/>

### PAYS in the UK

This year in the UK the Sustainable Development Commission identified PAYS as one of its 19 breakthrough ideas which could transform the UK into a sustainable society.

<http://www.sd-commission.org.uk/presslist.php/100/time-to-raise-our-game-19-ways-to-make-the-uk-more-sustainable>

The UK Green Building Council has prepared a comprehensive report calling on the UK government to introduce a PAYS scheme to kick-start energy efficiency refurbishment.

<http://www.ukgbc.org/site/news/showNewsDetails?id=173>

# How psychology can curb climate change

Insights from marketing and psychology can encourage us all to do our bit to combat global warming

Peter Aldhous

"I'M NOT convinced it's as bad as the experts make out... It's everyone else's fault... Even if I turn down my thermostat, it will make no difference." The list of reasons for not acting to combat global warming goes on and on.

This month, an American Psychological Association (APA) task force released a report highlighting these and other psychological barriers standing in the way of action. But don't despair. The report also points to strategies that could be used to convince us to play our part. Sourced from psychological experiments, we review tricks that could be deployed by companies or organisations to encourage climate-friendly

Who's the neighbourhood's environmental hero?

behaviour. Also, on page 40 of this issue, psychologist Mark van Vugt of the Free University of Amsterdam in the Netherlands describes the elements of human nature that push us to act altruistically.

As advertisers of consumer products well know, different groups of people may have quite distinct interests and motivations, and messages that seek to change behaviour need to be tailored to take these into account. "You have to target the marketing to the demographic," says Robert Gifford of the University of Victoria in British Columbia, Canada, another of the report's authors.

The affluent young, for instance, tend to be diet conscious, and this

could be used to steer them away from foods like cheeseburgers - one of the most climate-unfriendly meals around because of the energy it takes to raise cattle. So when trying to convince them to forgo that carbon-intensive beef patty, better to stress health benefits than harp on about the global climate.

Though conservative pundits have been known to attack such efforts, characterising them as psychological manipulation or "mind control", experiments indicate that people are willing to be persuaded. "From participants in our experiments, we've never heard a negative backlash," says Wesley Schultz of California State University in San Marcos. In fact, according to John Petersen of Oberlin College, Ohio, we are used to far worse. "Compared to the barrage of advertising, it seems milder than anything I experience in my daily life," he says.

## Good neighbours

DEEP down, most of us want to fit in with the crowd, and psychologists are exploiting this urge to conform to encourage environmentally friendly behaviour.

Researchers led by Wesley Schultz at California State University in San Marcos and Jessica Nolan, now at the University of Scranton in Pennsylvania, have found that people will cut their electricity usage if told that their neighbours use less than they do.

In one experiment, the researchers left information with households in San Marcos asking them to use fans rather than air conditioners at night, turn off lights and take shorter showers. Some messages simply stressed energy conservation, some talked about future generations, while others emphasised the financial savings. But it was the flyers that implored residents to join with their neighbours in saving energy that were most effective in cutting electricity consumption (*Personality and Social Psychology Bulletin*, vol 34, p 913).

In another study, the researchers told households what others in their neighbourhood used on average. High users cut their consumption in response, but low users increased theirs. The problem disappeared if the messages were reinforced with sad or smiley faces. The smileys received by the residents who were already saving energy provided sufficient encouragement for them to keep doing so (*Psychological Science*, vol 18, p 429).

